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Tied Together Wirelessly: How Maintaining Communication with Parents Affects College Adjustment and Integration

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Tied Together Wirelessly: How Maintaining Communication with Parents Affects College Adjustment and Integration

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by

Dayna Staci Weintraub

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ABSTRACT OF THE DISSERTATION

Tied Together Wirelessly: How Maintaining Communication with Parents Affects College Adjustment and Integration

by

Dayna Staci Weintraub

Doctor of Philosophy in Education

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Professor Linda J. Sax, Chair

Identifying the most effective ways of supporting college students' adjustment and integration, while simultaneously managing parents' desires for engagement, is a central challenge facing university administrators. As a result of exponentially rising college costs that require parents to assume a greater share of their children's education expenses, coupled with rapid technological advancements, parents and students interact much more frequently than in the past.

Whether college is a time to separate from family in order to establish one's independent identity, or a time where maintaining contact with parents helps students' journey, remains unanswered. Our understanding of the link between ongoing parental communication and students' progress in college is currently dominated by the unverified media narrative claiming that students' frequent contact with parents ultimately leads to the development of overly dependent and less self-reliant young adults. Moreover, it is vital to note that different gender,

racial, and socioeconomic groups may not communicate with their parents in the same ways and thus may experience dissimilar familial bonds and effects.

Drawing from student development theory, college impact models, and extant literature, this study presents a longitudinal analysis of how maintaining parental communication during college predicts adjustment and integration, and addresses whether these effects are dependent upon students' gender, race, or class. Using survey data obtained at three timepoints, quantitative analytic techniques examine these questions.

The conclusions from this study suggest that students are gravitating towards more asynchronous modes of communication with their parents. Further, this study found that students' interactions with their parents do have some positive relationships with their adjustment and integration, even after controlling for other pre-college traits and college experiences. More importantly, peers and faculty were shown to be much stronger predictors of adjustment and integration relative to the role played by parents. In light of these findings, this study offers implications for college and university administrators, parental figures, and future research.

The dissertation of Dayna Staci Weintraub is approved.

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2016

In memory of my namesakes, Gussie Gendelman (z”l) and Sam Potashnick (z”l)

To my Parents-

for instilling in me the value of education.

and

To Larry-

for your constant support, love, and commitment.

and

To Jonah and Noam-

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CHAPTER ONE

INTRODUCTION

College students are in far more communication with their parents than ever before. Technological conveniences such as cell phones, texting, and social media, make contacting parents very easy. Walking to and from class, students are calling or texting with mom, not necessarily for any particular reason, perhaps just to check-in or pass time. On a different level, some students have parents who view the course catalog and send them recommendations of what classes to take (Hofer & Moore, 2010). Indeed, ongoing interaction with parents is the prevailing story on college campuses today, despite some differences in the level of communication observed among students from different demographic backgrounds (Wolf, Sax & Harper, 2009).

Aside from technology, there are many other possible explanations for students' frequent communication with their parents during the college years. One explanation is that the current population of parents is more likely to be college educated, particularly mothers (Saenz, Hurtado, Berrera, Wolf, & Yeung, 2007). As the proportion of parents with a college degree increases, there are simply more college parents who possess knowledge of how colleges and universities function, and because of this they may have more opinions on how institutions should treat students (Howe & Strauss, 2003).

An alternative explanation for parents' increased contact with their college student relates to higher education costs shifting away from governments and taxpayers to students and families (Johnstone, 2005). As college costs have increased, there is both a greater burden on parents to fund their children's college experience, but also to donate philanthropically to the college (Baum & Steele, 2007; Paulsen & St. John, 2002). In that sense, parents may be seen as

more involved in their students' experience because they are making a greater "investment." However, not all families have the financial means to contribute in this way, as college costs disproportionately burden African American, Latinx[1], and lower-income families (Elliott & Friedline, 2013). Still, it cannot be overlooked that these parents, regardless of their financial means, also make an investment in their child's college experience, since parents' concern, love, and support for their children extends across social class (Lareau, 2011).

In addition, despite popular images of students attending college away from home, students' interactions with their parents do not solely take place at a geographic or technological distance. In fact, many students have ongoing family or other responsibilities, especially Latinx and Asian American students from immigrant families (Sy & Romero, 2008). While students from these groups often live at home, where face-to-face interactions occur more frequently (Pascarella, Pierson, Wolniak, & Terenzini, 2004; Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007; Turley & Wodtke, 2010), in-person interactions are likely to occur even among students from these groups who officially live on campus (Wolf, 2011; Yeung, 2011).

As parents of the millennial generation become more engaged in their college students' daily affairs, the role of parents in college has increasingly come under media scrutiny. The media presents a pejorative image of increasing levels of parental involvement in millennial college students' affairs, through the use of parenting metaphors, which have risen to the level of clichés in current discourse (e.g., "helicopter parenting" and "snowplow parenting"). Unfortunately, these metaphors are too often overly simplistic and created in service of sensationalistic headlines, rather than functioning as a genuine effort to explain and describe a phenomenon. Further, such metaphors do not take into account how student-parent interactions

[1] The "x" is used as a more inclusive term and indicates male, female, or non-binary gender preferences.

may vary by students' gender, race, or socioeconomic background. In fact, a helicopter parenting metaphor might represent the antithesis of parenting styles expressed within certain groups, especially if the parents did not attend college.

Even when actual research findings in the area of parenting are presented by the media, popular metaphors tend to overwhelm the interpretation. For example, Bella English wrote that "the infamous helicopter parents, hovering over their younger children, are now transitioning into so-called snowplow parents, trying to smooth a path for their kids even after they've started college" in the *Boston Globe* (November, 2013). English's term "snowplow parents" was used to describe one study where Schiffrin et al. (2013) report that over-involved parents restrain their students' independence and confidence in forming meaningful relationships during college. However, this result is far from universal, as the population in their study was limited to a very particular demographic, namely White parents from middle- to upper-class backgrounds. Furthermore, the typical parent in the study displayed few of these over-involved behaviors.

The media causes the public to assume that parent over-involvement applies to the entire population equally; this is a misconception. The nature of parental involvement is not only predicated on one's identity, but it is also predicated by campus climate. Indeed, although the image of unhealthy or hovering parenting stems from thinking of parents as intervening, parents may in fact be their children's first line of support. There are a number of situations that arise on campus where parents' concerns for their students' safety and emotional well-being is justified. In fact, the rise in critical incidents on college campuses (e.g., sexual victimization and racial hostility) implies a variety of catalysts for parental involvement. For instance, parents of women may have greater contact after an incident of sexual assault occurs on campus. Likewise, parents of African American students may be asking similar questions related to their student's

emotional safety and inclusiveness on campus. Another example is the "Count Me In" campaign in which Asian Pacific Islander students called for the University of California system to disaggregate admissions and enrollment forms beyond a broad Asian Pacific Islander (API) category and into 23 different ethnic groups in order to better reflect the economic diversity of (and unique needs within) the API student population (Lee, 2007). These examples bring to light how some of the motivation for parents to remain connected with their college-going children will naturally vary by gender, race, and class, and that college adjustment and integration may also vary by demographic background (Harper, Sax, & Wolf, 2012; Sax & Weintraub, 2014; Sy & Brittian, 2008; Witkow, Huynh, & Fuligni, 2015).

While the factors discussed above may provide some explanation for increased parent engagement, little is known about how differential modes of communication vary across a diverse student population and how this might relate to college adjustment and integration. As such, any exploration of student-parent communication during college must attend to how such dynamics are shaped by gender, race, and class. This study is designed to address that question.

What Does Scholarship Tell Us?

Scholars have begun to synthesize relevant research from psychology and education to bring clarity to the dual questions of what we know about parental influence and what we still need to know in order to understand the parental role in college students' adjustment and integration. For instance, Wartman and Savage (2008) note the fundamental tension between K-12 parental literature, which encourages involvement of parents, and psychology-based college-age literature, which generally leads towards encouraging the separation of students from their parents. In addition, Sax and Wartman (2010) suggest important areas that need to be addressed through research such as understanding the types, frequency and nature of parent involvement

behaviors, the effects of involvement on college outcomes, and how involvement varies by student characteristics (e.g., gender, race, and class).

Presently, at least four fundamental gaps exist in our current knowledge base that make it difficult to discern whether and which parent behaviors help or hinder students' adjustment and integration in college. Sax and Wartman (2010) identified some of these aspects in their research and other gaps are undertaken in the present study. First, while there is a robust literature in psychology, these studies utilize psychological instrumentation measuring attachment and separation that do not account for the unique effects of the college experience on student development outcomes. While this research implies that parent involvement should continue beyond the compulsory years of schooling, a logical and necessary next step is to investigate college outcomes in order to identify the consequences of parent involvement on college student development. Such research would provide a more nuanced understanding of how, why, and to what degree parent involvement influences college adjustment and integration. Thus, parent involvement research would be bolstered by specific questions ascertaining the parent role in terms of communication during the college years.

Second, while there is a growing focus on parent involvement in the higher education literature, most of this research is cross-sectional, thus inhibiting the ability to discern the consequences of parent involvement on students' adjustment and integration. For instance, questions ascertaining the frequency and nature of parents' role in college admissions were added only one time to the 2007 Cooperative Institutional Research Program Freshman Survey and 2007 National Survey of Student Engagement (NSSE). In addition, the 2006 University of California Undergraduate Experience Study (UCUES) included questions describing parent behaviors in the Student Development module. However, because these survey items were

asked one time only, they do not reveal change over time. As such, a matched sample design is required to estimate the impact of student-parent interactions across time.

Third, extant research tends not to account for the inherent differences in parental involvement based on students' background characteristics (e.g., gender, race, and class). Although the nature and effects of parent involvement in general has been addressed at a basic level, it is unwise to assume that all students respond to parent involvement uniformly across an increasingly diverse student population. While some studies exist which do address this important consideration, they typically suffer from the same limitations as the general parent involvement research listed above (see for example research by Wolf, Sax & Harper (2009), Harper, Sax, & Wolf (2012), and Sax, Bryant & Gilmartin (2004)). In general, the existing research suggests that parent involvement may help or hinder student progress in various ways depending on students' gender, race, and class, but there is an undeniable need for more research that takes into account the conditional effects of student-parent interactions by student background characteristics, and particularly race and class, given the increasingly diverse population of students who pursue a college education.

Fourth, nearly all of the literature related to parent involvement describes parents in the aggregate, which conceals the potential differential effects of parent gender or relationship to child. By failing to specify parent types or only providing the predominant and traditional family configurations (e.g., mother and father) as an option, the research fails to acknowledge the growing number of students who spend a majority of their childhood years raised by unmarried partners, stepparents, same-sex parents, grandparents, or legal guardians (e.g., adopted or foster parents) (Daniel, Evans, & Scott, 2001).

Finally, in addition to the above gaps in scholarship, we ought to be mindful of the terminology used to describe the parental role during college: Is it parental involvement or engagement? While the term "involvement" is used to describe specific actions and behaviors of parents (e.g., attending school events, participating in the parent/teacher association, and helping children with homework) (Barton et al., 2004; Kiyama et al., 2015; Lareau, 1987; Zarate, 2007), the term "engagement" encompasses the forms of support and encouragement that parents display towards their child's educational trajectory, including engagement with their child's school (Kiyama et al., 2015). Shifting the paradigm from involvement to engagement is useful because it embraces cultural and socioeconomic diversity by respecting how families' points of reference are drawn based on their lived experiences and relationship to education; further, it promotes the notion of parents as partners in their child's educational journey (Calabrese et al., 2004; Carreón, Drake, Barton, 2005; Kiyama, Harper, Ramos, Aguayo, Page, & Reister, 2015; Weiss, Lopez, & Rosenberg, 2010).

Purpose of the Study

The present study uses longitudinal data to explore the nature of students' interactions with their parents during the first and fourth years of college and the effects of these interactions on first-year adjustment and fourth-year integration. Further, this study assesses whether differential effects across gender, race, or class exist within these relationships. This exploration is guided by the following research questions:

1) Nature of Student-Parent Interactions
    a. What are the frequency and mode of students' interaction with their parents during college? How does this change between the first and fourth years of college?

b. What is students' perceived quality of and satisfaction with the type and amount of communication they have with their parents during the first and fourth years of college?

c. How does the frequency, mode, and perception of student-parent communication vary by gender, race, and class?

2) Effects of Student-Parent Interactions on First-Year Adjustment

a. How are student-parent interactions associated with key indicators of first-year adjustment (academic adjustment, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?

b. How does the association between student-parent interactions and first-year adjustment vary by gender, race, and class?

3) Effects of Student-Parent Interactions on Fourth-Year Integration

a. How are student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?

b. How does the association between student-parent interactions and fourth-year integration vary by gender, race, and class?

4) The Effect of Changes in the Frequency of Student-Parent Interactions on Fourth-Year Integration

a. How are changes in the frequency of student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics, college experiences, and first-year student-parent interactions?

In order to answer these questions, this study combines data from three sources. First, the study pulls baseline data capturing student characteristics upon matriculation to college from a single institution's participation in The Freshman Survey (TFS) administered by the Cooperative Institutional Research Program (CIRP) at the Higher Education Research Institute (HERI) in 2011. Second, responses to the TFS are linked with this institution's annual Residential Life (RL survey) in spring 2012. A parent engagement module consisting of 40 questions which inquire about students' communication behaviors with their parental figure(s) was added to the RL survey in spring 2012. Third, participants in both of these surveys were invited to participate in a follow up instrument, the Student-Parent Interactions (SPI) survey, to ascertain whether there was change in communication patterns with parental figure(s) three years later. Because students' identification numbers linked these survey instruments, the proposed study was a longitudinal assessment of the unique impact of student-parent interactions on first-year student adjustment and fourth-year integration. Further, while data from these survey instruments were obtained from a single institution, the specific measures of student-parent interactions provided have not been asked in this detail on any surveys before. Additionally, these surveys ask a wide variety of questions, thus providing a rich base of variables to draw from in terms of dependent and independent variables. Because the institution dedicates resources to parents and considers parents as members of the college or university community, which is a national trend, this study can be a model of what parent engagement on college campuses can look like.

Significance of the Study

Significance for Research

While much is known from a psychological perspective as to how parental attachment influences students' adjustment to college, very little is known about how the frequency, nature,

and satisfaction of students' interactions with their parents may influence their adjustment and integration during college. Even less is known about how both the interactions and their relationship to student development outcomes may depend upon students' gender, race, and class. Thus, the contribution of this study is to expand the literature on this important topic by examining the relationship between student-parent interactions and student development outcomes, and at the variation in those relationships by gender, race, and class.

However, in order to accurately estimate the influence of student-parent interactions on students' adjustment and integration, the use of a matched sample longitudinal research design that considers student and parent diversity within communication behaviors, as is proposed in this study, is warranted. While there are a handful of previous studies that may consider some of these elements, the college parent involvement literature has not assessed change in communication behaviors over time, nor differences in these patterns based on students' gender, race, and class. Further, because asking students to self-identify their parental figure(s) is a newer approach within survey research, this study offers important insights related to capturing diversity in family structure and sources of influence.

Finally, the proposed study contributes theoretically and conceptually to the higher education literature by integrating more seminal theories (e.g., attachment and separation) with more current perspectives (e.g., self-authorship) and by drawing more explicit linkages between students' interaction with their parental figure(s) and their social and academic experiences during college. Specifically, this study takes into account the experiences of a student prior to matriculation and during college that may or may not also influence students' adjustment and integration. Thus, the findings of this study makes a significant contribution to extant literature

given the longitudinal design; assessment of student gender, race, class, and parent gender differences; and identification of parental figures' place in conceptual models of college impact.

Significance for Policy and Practice

This study also provides important information to students, parents, and college administrators as to the types of parent behaviors that are most beneficial to student adjustment and integration. Postsecondary education institutions can use this information to develop strategies for working with students and their parents. As the responsibilities of student affairs administrators shift from a strict focus on student development to increased time spent fielding parent concerns, colleges and universities require deeper understanding as to how campus climate may influence the ways in which parents interact with their children during college, and relatedly, how college administrators may need to enact different outreach efforts based on students' diverse experiences.

Furthermore, because students tend to have varied relationships with their parental figures, this study demonstrates the sometimes unique ways in which each parental figure may facilitate healthy college adjustment and student growth. As such, postsecondary education institutions will benefit from more nuanced information about how students' relationships with their parents are not uniform. These and other implications for practice are discussed in Chapter Five.

Outline of the Study

In this chapter parental involvement during college was portrayed as a new reality for administrators. Given this growing phenomenon, college administrators require a variety of strategies for advising the diverse range of parents and students on campuses today. Therefore, this study's purpose is to inform administrators, parents, and students of how the differential

interactions between parents and their students relate to first-year adjustment and fourth-year integration. Chapter Two further expands on this foundation to include a comprehensive review of the existing research on parental involvement, first-year adjustment, and fourth-year integration. Additionally, Chapter Two defines key terms and concepts related to parental involvement, illustrate theoretical perspectives, and propose a conceptual model by which the relationship between the two might be understood with respect to variations by gender, race, and class. Chapter Three describes the methods used to address this study's research questions. Included in Chapter Three are hypotheses associated with each of the four research questions; the instruments, data, and sample; and explanations of the statistical analyses that were utilized. Next, Chapter Four presents the results of this study with respect to the four research questions. Finally, Chapter Five discusses the results in light of the extant literature and suggests future research as well as implications for policy and practice.

CHAPTER TWO

REVIEW OF THE LITERATURE AND THEORETICAL FRAMEWORKS

The media is replete with discussions of parenting and education. There are stories of the overly involved helicopter parent who smothers one's child, and of the combative "tiger mom" riding her child hard to supposed success. Widely held assumptions about the phenomenon of parental engagement among college students, albeit differences in approach, are often formed based on these sensational stories and skewed in favor of the type of practices and also the social position of certain families, namely, college-educated White and Asian families from middle to upper class backgrounds. In reality, however, parent engagement is far more complicated.

Because students come from a variety of backgrounds, there cannot be a single model of parental engagement. For instance, higher-income parents may have certain tangible privileges and resources that free their time to be involved in their child's education. Working-class families may not have the same sort of discretionary time, but this does not negate the love, support, care, and interest they show towards their children's education performance and aspirations (Lareau, 2011). Among immigrant families, especially true for middle- and upper-income Asian families, fathers may return to their home country to work while mothers and children remain in the United States, termed "astronaut families" (Tsong & Liu, 2009, p. 365). Parents may also interact differently with their children on the basis of the child's gender. The extent to which parent-child relationships during college may depend on factors such as race, class, and gender is a major focus of this study.

This chapter is organized into five sections that lay the groundwork for exploring the role parents play in their children's adjustment and integration in college. To begin, I explain the evolution of the parental role in a child's college experience. Next, I examine the various types

of parental involvements in college and provide a rationale for the specific use of *student-parent interactions* as the focus of this study. Following this, I describe what is known in the literature regarding parents' role in their college students' experiences, illustrate differences in these roles based on students' demographic backgrounds, and outline the known impact of such parental roles on various adjustment and integration measures. This review also recognizes limitations in existing research with respect to conceptual and methodological approaches to examine the topic of parental engagement. Then, I examine the relevant frameworks for understanding parents' role in college student development theory and describe how parents are situated in college impact models. Finally, the chapter concludes with the objectives of this study.

Evolution of the Parental Role in College

Though variations exist, parents of today's college students are engaged in their children's educational experiences to a greater extent than ever before. Understanding these changes involves having a strong grasp of (a) the historical changes that have led to the current student-parent-college relationship, and (b) how the relative roles of college students, parents, and institutions have evolved over time. Below, I chronicle the role of parents in higher education beginning from the colonial era and extending to present day and detail the extent of their engagement in contemporary higher education. In considering this evolution, it is important to remember that the nature of the college-going population has also evolved from the privileged few to an increasingly large and diverse student body.

Historical Conceptualization of Parent Engagement in College

The early colonial colleges acted *in loco parentis* by closely monitoring all aspects of student behavior (Cohen & Kisker, 2010; Wartman & Savage, 2008*). In loco parentis* is Latin for "in the place of a parent" (Gifis, 1996), and served as the legal and philosophical canon that

guided the relationship between college students, parents, and institutions. This canon was the framework for policy and programming and defined how college deans and personnel interacted with students (Henning, 2007).

In loco parentis remained as the prevailing paradigm until the 1960s, ultimately receiving court validation through the ruling of *State v. Pendergrass,* 19 N.C. 365 (1837). The ruling in this court case bestowed teachers with full legal authority to discipline school children (Henning, 2007; Lee, 2011). Later, *Gott v. Berea College,* 156 Ky. 376, 161 S.W. 204 (1913) granted authority to Berea College to ban student patronage at local establishments not owned by the college; the college stood *in loco parentis* concerning students' ethics and physical well-being (Henning, 2007). Through this arrangement, parents essentially abdicated their role to college administrators, which eliminated any direct parental role in college student development and led to the exclusion of parents in student development theory (Taub, 2008).

The traditional *in loco parentis* model lasted until the mid-20th century when a combination of legal changes, societal changes, and conflicts between youth and the older generation (e.g., the Vietnam War, the Civil Rights Movement, and the drug culture) combined to leave college-age persons clamoring for and ultimately aquiring far more autonomy. *In loco parentis* ultimately ceased when it was challenged by *Dixon v. Alabama Board of Education,* 294 F.2d 150 (5th Cir. 1961).[2] Six students from Alabama State College, then a segregated black college, were preemptively expelled for participating in civil rights demonstrations. This was not an isolated legal change, but one that was part of a larger renegotiation of society's relationship with college-age persons. In addition, the timing at which society considered individuals to reach adult status, also known as the age of majority, decreased to 18 years (Bickel

[2] Thurgood Marshall, later the first African American Justice on the United States Supreme Court, represented the students in the Dixon case.

& Lake, 1999; Edwards, 1994). College students ages 18-21 gained legal rights and responsibilities as state and constitutional law began to treat them as adults in a wide variety of contexts, including voting, the right to contract, and many of the significant rights of adulthood.

As a result of the demise of *in loco parentis*, there was a shift in the relationship between students, parents, and institutions. Students rebelled against universities' supervision and demanded increased autonomy and greater authority over their education and academic records. The Federal Government established the Family Educational Rights and Privacy Act (FERPA) in 1974, which was the official acknowledgement of students as their own independent authority with respect to their choices during college life. In addition, FERPA protected students' personal information from being disclosed to parents, thus granting adult responsibilities to college students. Meanwhile, parents remained largely absent from college life. Student affairs professionals embraced the notion of college students functioning as adults, leaving little consideration for parents in theory and practice.

Then, in the 1980s, yet another shift occurred at which time postsecondary education institutions began to regain some authority. Students started demanding that colleges take more responsibility for their well-being, which necessitated returning some authority back to colleges. Postsecondary education institutions' return to close monitoring of student behavior was a means of establishing safety protocols and responding to students' requests for more support services (Wartman & Savage, 2008). Universities established new support resources including career centers, academic advising offices, and student programming offices, thereby providing more parent-like hand-holding to help students achieve their goals. Students no longer seemed to want the responsibility of full autonomy, preferring that colleges play a more active role in guiding them on the path to success.

The return of a more active supervisory paradigm for colleges smoothed the way for the current generation of college students to enlist their parents as supportive resources. Thus, parents can no longer be described as marginal to the daily operations of college administrators' work (Cohen, 1985; Taub, 2008). This current generation of college students describes themselves as exceptionally close with their parents; not coincidentally, they have enabled and/or acquiesced to their parents contacting college administrators about details of their college progress (Howe & Strauss, 2000, 2003). Revisions to FERPA now allow parents to receive certain notifications and students' lack of rebellion against this new state of affairs suggests students' acceptance of parental involvement (Pizzolato & Hicklen, 2011).

The historical chronology of the relationship between postsecondary education institutions, parents, and students forms a self-correcting pattern. The events of the sixties were extreme; therefore, the relationship eventually returned to one where students no longer needed to behave like fully matured adults with no support system. Now the pendulum has swung back. While it has not swung back so far as to reinstate a legal regime of *in loco parentis*, similar principles govern the expectations that today's college students and their parents have of postsecondary education institutions (Wartman & Savage, 2008). Nevertheless, in other ways, the pendulum has swung back even farther, as it is not just colleges that have reestablished a supervisory role, but parents as well, and for a variety of reasons that will be discussed below.

The Parental Role in Contemporary Higher Education

When many of today's parents were college students in the 1980s, they demanded increased services from their institutions. Now, as parents of college students, they are making similar demands of their children's institutions. This raises the question of whether college-educated parents are reenacting their experience to the benefit of their children or limiting their

children's opportunity to shape their own college experience. On the surface, evidence leans toward the latter with student affairs administrators reporting "extreme behaviors" on the part of some parents (e.g., "contacting the college late at night to report a mouse discovered in a daughter's room, expressing anger over a grade on a paper 'my son worked so hard on', or complaining about a roommate who snores") (Coburn, 2006, p. 9). These anecdotes as described by college administrators and further exaggerated by the mass media portrayal of the "helicopter parent" phenomenon, in which certain parents hover over their children beginning in grade school.

The expression "helicopter parent" was first used in the book *Between Parent & Teenager* to reference a teenager complaining of a mother hovering like a helicopter (Ginott, 1969). Then, Cline and Fay (1990) appropriated the term to describe the actions of college students' parents revolving their lives around their children, rescuing them from danger and prohibiting students from learning by making mistakes. Mullendore (2014) faults the emergence of the cell phone, which he refers to as "the world's longest umbilical cord," for the flare of helicopter parenting (web log comment para. 1). Others disagree and name the increase in college tuition as the culprit, suggesting that parents have a financial investment to protect and they are simply behaving like responsible consumers (Johnstone, 2005).

Parent involvement has further been heightened for Asian American students with recent critiques of the "Tiger Mom" phenomenon (Chang, 2011). In January 2011, the *Wall Street Journal* published an essay entitled, "Why Chinese Mothers Are Superior" by Amy Chua (2011). This essay and the ensuing media attention thrust Asian American parents and their presumed parenting style, labeled "tiger parenting," into the spotlight (Poon, 2011). Tiger parents were characterized as controlling and authoritarian, dictating their children's activities and schedules in

order to achieve academic success (Juang, Qin, & Park, 2013). And yet, many Asian cultures are dictated by Confucian ethics (Tu, 1976), emphasizing collectivism and intergenerational ties (Juang et al., 2013), meaning a complete breaking away from parents may in fact be detrimental to some Asian American students' adjustment. Indeed, a study of Chinese American students and their parents found that children wanted more independence but also felt sad when parental pressure was absent (Qin, Chang, Han, & Chee, 2012).

Below I provide greater description as to the ways that parental involvement via the "helicopter parent" or "tiger mom" phenomenon has been observed and operationalized on college campuses.

Forms of Parent Behaviors

Parents have many means of engaging themselves with their children's college lives, both directly and indirectly. The most visible forms of parental involvement, largely because colleges have been forced to respond to increased levels, include parental intervention with college administrators on behalf of their children or excessive parental pressure, which have been associated with feelings of failure or parental disapproval among South East Asian American students (Museus, 2013). In some respects, this echoes the widespread pejorative image of helicopter parents or tiger moms. Viewed from a different perspective, parents are genuinely interested in their college student's development and are seeking knowledge on the appropriate ways to encourage and guide their child when navigating the college experience (Wartman & Savage, 2008). Administrators intend for parents to understand how their student is connected to their college campus with the aim of retaining this institutional connection beyond the college years (Wartman & Savage, 2008).

Additionally, parents have the ability to participate in the college community, attending events such as orientation and sporting events, joining alumni or parent associations or volunteering in campus organizations. This sort of participation gives parents a greater investment in the community, and may increase their ownership of the college experience (Wartman & Savage, 2008). Research has not documented parent participation in these ways as having a direct influence on students' adjustment and integration, though the potential for such an indirect effect is, of course, always possible.

Some parents are also solicited for donations beyond tuition to college scholarship funds, religious organizations, and any extracurricular activities in which the student may participate. The impact of these contributions may increase the parents' sense of belonging to campus, inspire or pressure the student to participate in certain activities, or otherwise lead the student to be more involved on campus. These sorts of pressures could also have negative effects on the student as well through a backlash effect. This greater level of involvement has resulted in college administrators needing to dedicate more time to either fielding direct inquiries from parents or advising students how to speak with parents about their college affairs. For example, a study of 127 doctoral research institutions revealed that 93% of student affairs administrators reported that their interactions with parents have increased over the past five years (Merriman, 2006).

Finally, students and parents are embracing modern day technology, which lends itself to more immediate and frequent communication. The primary mode of communication preferred by college students is the mobile phone (Lee, Meszaros, & Colvin, 2009; Sax & Weintraub, 2014). Students and parents are communicating with each other by cell phone at least once per week followed by email at least once a month; however, it is unclear from this line of research

whether students or parents are initiating the interactions (Abar, Abar, Turrisi & Beldon, 2013; Sarigiani, Trumbell, & Camarena, 2013; Sax & Weintraub, 2014). Communicating by mobile phone allows students and parents to maintain contact, students to fulfill familiar roles, seek emotional and physical support from parents, and share their college experiences (Chen & Katz, 2009).

Countering the media exaggeration and administrators' complaints about parents, most students do not describe their parents as intrusive. On the contrary, students are generally satisfied with the amount of communication they have with their parents (Sax & Weintraub, 2014). Students yearn for close contact with their parents during college for reasons of receiving support and reassurance, not necessarily out of a desire to have their parents make decisions for them or resolve academic challenges on their behalf (Pizzolato & Hicklen, 2011). Cullaty (2011) recommends that parents maintain supportive involvement and relinquish the need to control behavior or intervene for the student, as establishing reciprocal adult relationships with their parents enables students to exercise responsibility and behave wisely.

Campus Response to the Increased Parental Presence

Aligned with the historical development of parent expectations for greater participation, universities began to formalize a connection to the institution for parents and family members in the 1990s, vis-à-vis hiring professional staff to develop parent orientation programs, as well as newsletters or handbooks for parents (Wartman and Savage, 2008). This led to some campuses establishing parent offices that were designed with the purpose of creating open channels of communication between parents and college administrators in order for parents to feel equipped with information and knowledge to support their student (Savage, 2007). Originally, parent offices provided programmatic opportunities that promote leadership and understanding of the

college experience (e.g., orientation and parents/family weekend) with the intention of raising money. Gradually, as rapid improvements occurred during the '90s, the goal of these outreach efforts shifted to handling frequent inquiries from parents through hotlines, email correspondence, and social media (e.g., Facebook pages). Ultimately, the intentions behind serving parents is undergirded by the notion that any information provided would be shared with their children to enrich students' college experience.

Associations for higher education professionals (e.g., NASPA – Student Affairs Administrators in Higher Education, American College Personnel Association) also support parental involvement resources on college campuses. Professional associations facilitate networking opportunities (e.g., NASPA Parent and Family Knowledge Community) that are designed to enable student affairs administrators nationally to communicate about relevant topics, including, for example, how to serve their entire, diverse parenting population. For instance, a campus outreach effort that accommodates diverse populations involves making publications available online for parents who cannot travel to campus and in a variety of languages.

Importance of Student-Parent Interactions

In the preceding section, various parent behaviors and campus responses were considered. This section explains why this study will focus on communication as a form of parental engagement and what we know about students' interactions with their parents.

While there are many forms of parent engagement, student-parent interactions are the foundational basis on top of which the entire edifice of parental engagement is built. Examining the communication patterns between students and their parents identifies how parents become aware of the opportunities to be involved in students' college experience. Direct communication

is how parents learn about their child's life in college, while the lack of interaction may be an impetus for parents to engage in other forms of involvement in order to seek out that information (e.g., volunteering at the university, participating in programs sponsored by parent and family offices). Most importantly, investigating the behavioral aspects of students' communication with their parents reveals how children choose to interact with their parents.

Parent communication is also changing substantially because technology allows for more frequent communication. Advancements in technology provide a greater variety of communication modes for students to choose from. As a result, investigators have recently been focused on quantitative assessments of parental communication behaviors. A number of researchers have turned to this question, exploring student-parent interactions in a variety of ways.

Abar et al. (2013) approached the question in the most general sense exploring only the mode and frequency of communication, performing detailed analysis to understand the relationship between frequencies of communication across all modes. While their study enabled the identification of distinct paradigms of student-parent communication, it did not assess the content or motivations behind the communication. Both Chen and Katz (2009) and Connell and Dworkin (2011) addressed the issue of why students chose to communicate with their parents. Chen and Katz (2009) explored only mobile phone usage, whereas Connell and Dworkin (2011) investigated 12 different communication methods. Both studies incorporated the aspect of considering mothers and fathers separately. Sarigiani et al. (2013) explored frequency, mode, and parent gender in their study, and dedicated a portion of the study to carefully examining the subset of their student participants who had at least daily phone contact with parents. All of these studies had sample sizes of a few hundred students or less. Wolf et al. (2009) looked at a

sample of over 10,000 students examining the frequency of parent contact and involvement in students' academic experiences. Notably, this study did not distinguish between parents, instead considering all communication with parents collectively. However, the sample allowed for the consideration of race and ethnicity, class, gender, parent immigration status, and year in school in distinguishing differences in communication patterns.

The collective conclusion of these studies is that students are now seeking out modes of interaction that allow for immediate feedback and can be performed ubiquitously (e.g., cell phone, text messaging, or email) (Chen & Katz, 2009; Sarigiani et al., 2013; Sax & Weintraub, 2014). Despite the use of technology in their communication choices, a majority of students in the Sax and Weintraub (2014) sample did not report frequent use of social media as a means of communicating with their parents (e.g., Skype and Facebook). However, as Sarigiani et al. (2013) point out, electronic forms of communication are rapidly expanding; therefore, it is imperative to reexamine this topic on a regular basis as the potential avenues for communication expand and evolve (Sarigiani et al., 2013). Furthermore, it merits note that while students may not perceive that they communicate with parents via social media, their parents may be using Facebook and Instagram to keep tabs on their behavior (Steyer, 2012).

While the students in Sax and Weintraub's (2014) study preferred electronic methods over more antiquated modes such as face-to-face interaction or postal mail, this pattern may not look the same across racial and ethnic groups. For instance, Latinx-American students may maintain greater face-to-face interaction with parents compared to White, Black, and Asian students given the value they place on living at or close to home during college (Ovink & Kalogrides, 2015; Tornatzky, Lee, Mejía, & Tarant, 2003). Unique to the Latinx community is a particular closeness, referred to as *familiasm,* in which the priorities of the family take precedent

over individual goals (Desmond & Lopez Turley, 2009). This arrangement results in Latinx students often being very close with their parents, especially daughters with their mothers (González, Jovel, & Stoner, 2004; Sy & Romero, 2008). Living closer to home enables Latinx students to maintain familial closeness and is also associated with increased likelihood of bachelor degree attainment in comparison to White students (Cerna, Pérez, & Sáenz, 2006). In addition, within Latinx American families, there is a larger gap in technology use between parents and their children as compared to other racial and ethnic groups, which is inextricably linked to education attainment (Lopez, Gonzalez-Barrera, & Patten, 2013). The unifying theme within the parental communication literature is that the research on student-parent interactions has generally been descriptive in nature and often lacking in the exploration of the differential impact of student-parent interactions on aspects of college adjustment and integration by gender, race and ethnicity, and class.

Impact of Student-Parent Interactions on College Outcomes

While researchers have focused on cataloguing the frequency, mode, and nature of students' interactions with their parents during college, there is a limited body of scholarship that explores the effects of these interactions on college outcomes. Much of the scholarship that does exist focuses on the psychological relationship between students and parents. This section will explain adjustment and integration outcomes that researchers have examined with student-parent interactions and why these outcomes have been considered worthy of study. Each outcome will be discussed in turn, with attention to general correlates, as well as the ways in which parental engagement impacts adjustment and integration, and how such engagement varies by gender, race and ethnicity, and class. It is important to note here that most studies of gender in the college context apply a biologically or socially constructed binary definition (Johnson & Repta,

2012). Race and ethnicity can be taken in both broad, aggregated racial and ethnic categories, such as Asian and White, or broken into finer ethnic groups, such as Filipinx and Japanese; the studies considered below draw from both of these options. Disaggregated racial and ethnic data raises consciousness about the specific educational and social outcomes among subpopulations and prevents confounding errors in research by neglecting to consider the unique needs of subgroups (Teranishi, Behringer, Grey, & Parker, 2009). Class is even more complicated to represent, with most studies in sociology conceptualizing it as an income variable, while others in psychology consider parental education as the primary indicator of socioeconomic standing (Diemer, Mistry, Wadsworth, López, & Reimers, 2013; Duncan & Magnuson, 2003). Again, both options are useful in understanding the effect of class on college outcomes and are treated equally in this section. The section will conclude with a discussion of the conceptual and methodological limitations in this literature.

First-Year Adjustment

College adjustment during the first year is critical to longer-term persistence, academic achievement, and personal development (Pascarella & Terenzini, 2005; Tinto, 1993). Leadership in academic and social clubs and organizations, positive peer interactions, and relationships with faculty and administrators facilitate first-year adjustment (Astin, 1993b; Bean & Eaton, 2001; Braxton, Milem, & Sullivan, 2000; Kuh, Kinzie, Schuh, & Whitt, 2010; Pascarella & Blimling, 1996; Pascarella & Terenzini, 2005; Tinto, 1993; Upcraft, Gardner, & Associates, 1989). The vast literature on adjustment promotes peer social relationships, living in the residence halls and participating in student clubs as a primary vehicle for fostering students' sense of belonging and academic development (Chickering & Reisser, 1993; Rayle & Chung, 2008). All of these elements support Schlossberg's (1989) theory of mattering, which occurs

when students feel they belong and fit into the college campus. In a recent test of Schlossberg's theory, Rayle and Chung's (2008) primary findings align with the value of mattering. Specifically, they found that receiving social support from friends and family contributed to first-year adjustment, though college friends were the most influential.

Despite it being relatively less impactful than peer relationships, parents make a significant contribution to college student adjustment, (Sax & Weintraub, 2016; Wintre & Yaffe, 2000). A psychological assessment of student-parent relationships with 408 first-year students concluded that students adjusted best to the academic rigors of college when they perceived having an equal stake in the relationship (e.g., mutual reciprocity) and maintained open communication with their parents (Wintre & Yaffe, 2000). Sarigiani et al. (2013) conducted a smaller study of 280 college students using both a psychological assessment of parent attachment and a behavioral measure of parent contact and yielded similar results. Specifically, students who perceived a quality relationship with parents when maintaining frequent communication reported having experienced a positive adjustment. Therefore, advancements in communication technology likely helped and supported college student adjustment. However, exploring students' communication patterns with mothers compared to fathers yielded dissimilar experiences with adjustment (Sarigiani et al., 2013; Sax & Weintraub, 2016). On average, descriptive results revealed that students communicate with their mothers more than with their fathers, yet multivariate analyses revealed benefits related to college adjustment and contact with fathers (Sarigiani et al., 2013). Interestingly, Sax and Weintraub (2016) point out that students' desire for interaction with fathers predicted positive academic adjustment. Specifically, despite more frequent interaction with mothers, students who are acclimating well to the academic rigors of college yearn for an additional closeness and support quality from fathers, though these

studies cannot infer a causal implication as to whether or how students' satisfaction with paternal communication relates to academic adjustment.

Research has also revealed important differences based on student demographic factors. Hiester, Nordstrom, and Swenson (2009) investigated gender differences in the quality of students' relationship with their parents during the first semester transition to college and whether the level of attachment to parents changed or remained constant. Women's results revealed that their relationship with parents became closer over time; however, men's relationships did not change. For women, their attached relationship to parents throughout college was associated with higher psychological well-being and healthier adjustment (Hiester et al., 2009). Similarly, Melendez and Melendez (2010) found that having an emotional and affectionate quality of the parental relationship was a positive predictor of academic adjustment for Black and White students. Specifically, maintaining attachments with family, inclusive of non-blood or fictive relatives (e.g., godparents or close family friends referred to as aunts or uncles) provided Black students with support that enabled them to (persevere through challenges such as staying on track with academic responsibilities and stabilize emotional health. Latina women relied on their families for help in making important education decisions (e.g., choosing a college, declaring a major, and seeking a career).

Students from racially and ethnically historically marginalized communities in higher education face unique challenges including, but not limited to homesickness, separation from family and friends, and balancing familial household obligations (Hurtado, Carter, & Spuler, 1996). Barnett (2004) interviewed 50 first-year Black students acclimating to a predominantly White institution and found that family support eased the transition. In a quantitative exploration of whether parental attachment contributed to Black students' college adjustment, Hinderlie and

Kenny (2002) examined whether the role of on-campus social support eased the transition to a predominantly White university over and beyond the role of parents. Students transitioned better to the predominantly White campus with a combination of maintaining secure ties with parents and an on-campus social support network. While maternal and paternal attachment predicted academic and personal adjustment, unsurprisingly, living with and socializing with peers in college provided greater social support during their transition. Taken together, maintaining ties with family eased the transition for students of color (Carter, Locks, Winkle-Wagner, 2013).

With respect to socioeconomic status, familial support can be both helpful and hindering to students' adjustment. For example, while on the one hand, first-generation college students are grateful for the opportunities presented by obtaining a college education and are thus driven to excel academically, their obligation to work and help support their family financially can be a burden (Elkins, Braxton, & James, 2000; Wolf, 2011). As a result, frequent contact with family may place inordinate amount of pressure on these students to provide financial and emotional support, potentially negatively affecting their college experience. After all, frequent contact home may give families more opportunity to express to the student the challenges facing the family. When children grow up with more exposure to these challenges, they are inherently privy to the details of such challenges. Receiving this information while away at college may further exacerbate the tension between familial obligation and college responsibilities.

Emotional Well-Being

Promoting healthy management of stress and anxiety during the first year of college helps students experience a smoother college transition process with the ultimate goal of performing well during college (Sax, Bryant, & Gilmartin, 2004). Moreover, involvement in the campus community alleviates feelings of low emotional health through participation in clubs and

organizations and socialization with peers (Sax, 2008). Emotional well-being is a particularly relevant outcome of study in relation to parent involvement, given that national assessments indicate that students report a steady wane over the past 25 years in how they are rating their emotional health (Pryor, DeAngelo, Palucki Blake, Hurtado, & Tran, 2011).

The most significant correlates of emotional health during the first year of college include peers, family, and academics, though significant variations between women and men exist (Sax et al., 2004). For both genders, supportive and close peer relationships predict positive emotional health; conversely, conflict with roommates led to declines in emotional health ratings (Sax et al., 2004). The social influence of peers affects emotional health to a large extent for both genders; parents also play a small but significant role in emotional health (Sax & Weintraub, 2014).

When considering the effect of parents on psychological well-being, Kenny and Donaldson (1991) found that maintaining a close relationship with parents depends on the students' gender. In particular, Kenny and Donaldson (1991) found that attachment matters to women and not to men. In their study, parental attachment predicted higher psychological well-being and social competence for women in the first year of college, while similar outcomes were not identified for men. Overall, during the transition to college women possessed lower psychological well-being that was mitigated by parental support.

With respect to *parent* gender, within a traditionally gendered parental structure, maternal attachment was linked to higher psychological well-being, and paternal attachment was associated with experiencing a healthier social transition (Hannum & Dvorak, 2004). This research suggested that children gain security from the attention and support of mothers, and fathers provided children a sense of confidence that promoted social confidence and developing

relationships with peers and advisors outside of the family. Together, these studies showed the importance of gender on the parent-child relationship during college.

Sax and Weintraub (2014) further investigated whether there were gender differences in the relationship between parental contact and first-year students' emotional well-being. Women in more frequent communication with their mothers reported lower emotional well-being. Findings also indicated that desiring greater communication with fathers were more likely to report lower emotional well-being for both genders (Sax & Weintraub, 2014). In short, this study revealed important gender differences in how parental contact contributed to first-year students' emotional well-being and was in alignment with prior research on parent-child interaction within heteronormative family compositions that found women tended to request and receive emotional support from both parents (Valery, O'Connor, & Jennings, 1997). In addition, while parents contribute to students' emotional well-being, it is students' sense of belonging and ease at developing close friendships with other students that tends to be more salient (Astin, 1993b; Sax, 2008; Sax, Bryant, & Gilmartin, 2004).

Because differences in parental involvement are generally examined through a Eurocentric paradigm, it is important to investigate how these effects may vary by race and ethnicity. For example, Kenny and Perez (1996) examined the degree to which family attachment was associated with psychological well-being for African American, Latinx, and Asian American first-year students. Experiencing an easy transition to college was associated with having positive family attachments and parents who encouraged them to become autonomous (Kenny & Perez, 1996). Nevertheless, these studies reveal the importance of considering gender, race and ethnicity in the context of family relationships and college development.

Fourth-Year Integration

Maintaining a strong social connection and affinity to one's institution by feeling a sense of belonging and exercising autonomy and confidence in academic decision-making are important measures of college success (Nora, Barlow, & Crisp, 2005; Pizzolato, 2005). At the core of students' success is integration, which occurs when students fully immerse themselves into the formal and informal college academic and social environments (Tinto, 1975). Studies on integration outcomes during college include a few that focus on the role of parents in academic matters, such as decision-making, career exploration, and performance. Ketterson and Bluestein (1997) found that higher quality maternal and paternal attachment predicted freer exploration of careers. For example, supportive and involved parents helped increase feelings of autonomy leading to increased persistence in science (Ratelle, Larose, Guay, & Senecal, 2005).

Regarding the relationship between parental contact and academic performance, Cutrona et al. (1994) found that students earned higher grades when they had more parental support, which was associated with less stress, and in turn, increased confidence in their academic ability. When students shared their academic interests and concerns with parents coupled with parents' encouragement and expressions of their belief in their children's academic potential, students from various majors were more likely to excel academically (Cutrona et al., 1994). Students who rated their parents as being supportive and granting appropriate levels of autonomy reported higher levels of adjustment and integration throughout college. The supportive ratings diminished in salience somewhat from the first to fourth year, in alignment with college retention theory, which predicted that other contextual factors within the college environment played a greater role in fourth year students' adjustment and success (Strage & Brandt, 1999). As students progress through college, they establish new academic and social support communities

that aid in their success.

In a qualitative study, Simmons (2008) found that students describe their parents as "reliable advisors" (p. 37), seeking parental guidance on academic and career decisions as compared to friends. Despite having good friends, the students described the long history in their relationship as the reason for seeking greater guidance from parents (Simmons, 2008). Similarly, students in Pizzolato and Hicklen's (2011) study described their parents as guiding their decision-making process, rather than meddling or intervening, thereby suggesting an interdependent relationship dynamic as opposed to overreliance.

Wolf et al. (2009) demonstrated associations between parental involvement and contact with students' academic development varied by students' background characteristics. Harper et al. (2012) extended this earlier study and identified differences in strength and directions between measures of parental involvement and frequency of parent contact on students' academic development, social satisfaction and sociopolitical awareness, based on race and ethnicity, gender, social class, and year in college. These studies are particularly revealing given that most research examines outcomes that bias students from underserved communities. For instance, findings typically portray first-generation college students persisting at lower rates than students whose parents graduated from college, citing disadvantages based on a lack of social and educational capital, lack of parents' understanding of the college experience, and lack of support in navigating the college context (Pascarella, Pierson, Wolniak, & Terenzini, 2004). Definitions of parental involvement and support traditionally come from a Eurocentric perspective and fail to acknowledge the mutual reciprocity that these students gain from being a receiver and provider of financial and emotional support from families (Wolf, 2011). For instance, students from Latinx and Asian American families rely heavily on resources

accumulated within and by the family. Furthermore, the act of students as providers for families during college (e.g., childcare assistance, financial support) can either be seen as diverting students' attention away from academic and social integration (Tinto, 1993), or can be seen as equipping students with the tools to understand independent living (Sy & Brittian, 2008; Wolf, 2011). These perspectives demonstrate the importance of instrumentation that considers the diverse experiences of students from all racial, ethnic, cultural, and economic backgrounds.

In summary, when it comes to the topic of the parental role in college students' first-year adjustment, emotional well-being, and fourth-year integration, research suggests that parents do contribute, albeit in sometimes contradictory ways. Whereas some literature indicates healthy development when disconnecting from family members, others maintain that physically responsive, warm, and affectionate styles of parenting facilitate secure bonds that lead to positive childhood outcomes that endure through adulthood (Bowlby, 1977). Overall, the mixed results of the literature lend credence to the need for further study of the parental role during college.

Conceptual and Methodological Limitations in Prior Literature

It is evident that further exploration of the parental role in college students' adjustment and success is an important topic of study. While there is a small body of empirical research in this area, the studies that exist face important methodological and topical limitations.

First, most of the studies are cross-sectional and do not follow students throughout college to discern how student development is influenced by the relationship with parents (Sax & Wartman, 2010). A majority of the studies that measure communication patterns, many of which were discussed in the previous section, look at a single point in time to provide a snapshot of student-parent interaction (see for example, Abar et al., 2013; Chen & Katz, 2009; Connell & Dworkin, 2011; Sarigiani et al., 2013; Wolf et al., 2009). None, however, chart the evolution of

that communication over the course of the college experience. In addition, nearly all of these studies constrain their time frame for data collection to the first year of college looking specifically at adjustment and transition issues (see for example, Sarigiani et al., 2013). This leaves the unanswered question of how parents affect the later years of college. The importance of changing communication patterns over the course of postsecondary study is hinted at by Wolf, Sax, and Harper (2009) who found significant differences between students in their first two years of study compared to students in their final two years. Specifically, fourth-year students interacted with their parents less than students in their first and second years of college.

Second, it is critical to examine the conditional effects of parental involvement by students' gender, race and ethnicity, and class. Most studies do not separately examine the unique effect of each trait on parental impact. For instance, Wolf et al. (2009) examined the differential impact the mode and frequency of student-parent interaction had on the academic lives of students and their findings revealed the effects of parents' so-called hovering behaviors did not look the same across different student populations. However, this study was alone in attempting to address these issues. While Harper et al. (2012) extended this study by applying regression analysis to explore whether the strength and direction of the relationship between parental involvement and contact on academic development, social satisfaction, and sociopolitical awareness varied by students' race, gender, social class, and year in school, their follow-up study did not control for students' other collegiate experiences which may be related to the outcome measures.

Third, there are only a limited number of studies that differentiate among parents. Those studies that do consider parents separately find that this is an important consideration. For example, while students who come from homes with a mother and father figure are generally in

more frequent contact with their mothers, students who communicate most frequently with parents indicate stronger ties with fathers and have more positive levels of adjustment (Sarigiani et al., 2013). This aligns with Sax and Weintraub (2014), who show that daughters desire more communication with fathers. Furthermore, Sax and Weintraub (2014) found that mothers and fathers fulfill different needs; students tend to seek emotional support from mothers and academic advising from fathers. Considering parents collectively masks the different relationships students have with each parent. Unique in considering this dimension, these studies underscore the importance of distinguishing between mothers and fathers.

Fourth, most of the aforementioned studies base their assessments of parent involvement on a limited set of questions (Harper et al., 2012; Sarigiani et al., 2013; Wolf et al., 2009). These questions are either focused on measuring psychological attachment and separation (limiting the understanding of communication) or are extremely limited due to being short addendums to larger assessments of the college experience (see, for example, the 2006 University of California Undergraduate Experience Survey, the 2007 Cooperative Institutional Research Program's Freshman Survey, and the 2007 National Survey for Student Engagement). Thus, it is important to design instruments that assess the full range of student-parent communication.

Finally, most of the parent involvement literature takes a deficit approach to dealing with parents, often at the expense of alienating diverse forms of engagement (Barton et al., 2004; Kiyama & Harper, 2015). A consequence of this deficit-thinking is misinterpreting a family member's lack of involvement as negligence or indifference, when it may be a result of fewer resources, limited access, or uncertainty in navigating the educational system (Kiyama et al., 2015; Lareau, 1987; Lareau & Weininger, 2003; Weidner & Herrington, 2006; Williams & S'Anchez, 2011). Accordingly, this study attempts to reframe the parental role to a more asset-

based perspective that recognizes parents' and family members' strengths as partners in their children's educational journey (Edwards, 2009; Grant & Ray, 2010). An example of an asset-based approach from the research site of the present study is printing parent handbooks in multiple languages in order to make them accessible to non-English speaking family members. Given the methodological and topical shortcomings in the empirical research, any further study in this area needs to be well-guided by a strong theoretical framework that includes a focus on college-age student development. Furthermore, because most of this study is based on a Eurocentric approach, greater attention should pay attention to differences based on gender, race and ethnicity, and class. The next section will explore the theoretical interpretations of the parental role in college students' adjustment and success, including considerations of gender, race and ethnicity, and class. This chapter will conclude with a description of how college impact models conceptualize parent involvement as a key aspect of students' college experience.

Theoretical Perspectives

Student development theory emerged as a unified subject during the decade between the overturning of *in loco parentis*, and lowering the voting age to eighteen (Nuss, 2003). This was a period at which students were exercising a desire for greater autonomy over their academic records; therefore, the parental role in college students' lives was minimal at this time. Given this, most theories of college student development do not mention parents, and those that do focus primarily on the transition to college and on the act of removing parents from students' lives in order to achieve adult status. This section discusses the theories that do mention parents, namely from psychology and sociology, and explains the limitations of these theories in describing the experiences of diverse college student populations.

Separation-individuation theory

Blos (1967) and Erikson (1968) describe the theory of separation-individuation—the idea that adulthood is best reached through a psychological, emotional, and physical separation from one's parents. In essence, the classical theory of separation-individuation suggests that as adolescents become independent individuals their relationship with their parents rises above the childhood dependencies, internalized expectations, and images they have of their caregivers. For this development to occur, adolescents must disconnect from their parents in order to develop a confident and assured sense of self.

Later, Erikson, a psychoanalyst, applied separation-individuation theory to traditional-age college students. During college, students are in the process of committing to themselves and facilitating lasting, authentic, and intimate relationships with others. Parents are encouraged to allow their children to explore, because through exploration, children will develop their own identity (Erikson, 1968). Students need to fully immerse themselves in the college community, which requires disengagement from one's home, family, and personal alliances until the two communities intersect (Tinto, 1985). Chickering and Reisser (1993) promote the act of separation as the basis for students learning to function autonomously and becoming emotionally independent; that is to say free of receiving reassurance, affection, or approval from others.

Baxter Magolda and King (2004) agree that developing mature relationships is an important learning outcome of contemporary higher education. However, developing relationships that are grounded in a mutual respect for oneself and others cannot occur through a complete "separation from past associations". Rather, the process of developing autonomy involves integrating one's identity, understanding one's history, gaining confidence, and connecting one's past with one's present and future (Baxter Magolda & King, 2004). In sum, while some theorists believe students must separate themselves from family in order to develop

their identity or transition into adulthood, the degree and nature to which this distancing occurs is a point of disagreement.

Attachment theory

Contrasting with separation-individuation is the idea that the independence of adulthood is best reached with the continuous support of and contact with one's parents as codified by attachment theory (Ainsworth & Bell, 1970; Bowlby, 1973). Established based on research of children and their caregivers, attachment theory describes the sense of security received at infancy (Bowlby; Schwartz & Buboltz, 2004; Vivona, 2000). Specifically, infants feel comfortable to explore their environment only after establishing trust in the secure foundation and bond created by their relationship with their parents, particularly their mothers. Fathers and other caregivers can also be a principal attachment figure in a child's life when they provide primary childcare and social interaction. When attachment theorists extended their theory to college students, the sense of security felt from their attachment to parents enabled students to navigate the challenges and opportunities encountered during college more confidently (Kenny, 1987). Especially during times of stress, such as adjusting to their first year and preparing to graduate, remaining in contact with parents may help college students resolve conflicts.

Combining the theories of separation-individuation and attachment

When considering the modern landscape of higher education, scholars advocate that the theories of separation-individuation and attachment may best function in unison. One example is the expansion of technology, which allows students options for immediate access to their families, thus making attachment easy. However, students can also choose to avoid connecting via mobile devices in order to create distance from parents and families. In addition, a newer theoretical lens such as self-authorship theory provides insight into how separation-individuation

and attachment apply to higher education today. Self-authorship expands the ideas of attachment and separation-individuation theories, through the process of students moving away from relying on parents and making decisions independently. The next section will provide examples to support the claim that students require a balance of separation and attachment from parents.

Josselson (1987) advocates that both separation and attachment facilitate individuation. An example of how separation-individuation theory can incorporate notions of attachment theory occurs when college students function independently of parents while still maintaining a bond. In agreement with Josselson (1987), more recent scholars recommend both theories functioning in equilibrium to promote healthy emotional adjustment and success during college (Sax & Wartman, 2010; Schultheiss & Blustein, 1994; Schwartz & Buboltz, 2004; Wartman & Savage, 2008). For example, Schultheiss and Blustein (1994) concluded that certain levels of attachment might ease the act of separation, thereby facilitating autonomy and easing the stress that comes from adjusting to college. Extending this further, Mattanah et al. (2004) produced a model in which separation-individuation mediated the relationship between attachment and college adjustment.

Moreover, despite the proliferation of new technologies making it possible for students and parents to always be in contact, most students exercise boundaries with social media, which can be depicted as a form of modern day separation. While there is an increasing presence of adults ages 50 to 64 who are active on social media (Zickhuhr & Madden, 2012), most students are not contacting parents on Facebook (Pempek, Yermolayeva, & Calvert, 2009; Sax & Weintraub, 2014). In other words, the current generation of college students is identified as closer and more attached to their parents than previous generations (Howe & Strauss, 2003) as made possible through social media, cell phones, and other forms of instant communication

devices; yet, students recognize when and how to place boundaries on their relationships by disconnecting, limiting contact or adjusting privacy settings that allow for some distance and separation.

A balance between separation and attachment is found in self-authorship theory, which describes how external relationships serve as a guiding role in students' search for meaning and definition. Self-authorship is defined as:

> … the capacity to internally define a coherent belief system and identity that coordinates engagement in mutual relations with the larger world. This internal foundation yields the capacity to actively listen to multiple perspectives, critically interpret those perspectives in light of relevant evidence and the internal foundation, and make judgments accordingly (Baxter Magolda & King, 2004, p. 303-304).

A major outcome of self-authorship is moving away from a reliance on authority figures (e.g., parents) and making decisions independently. Achieving this competency involves questioning the beliefs and perspectives of external authorities, recognizing that information can be challenged, and developing of independent values and interests. Kegan (1995) promotes self-authorship as requiring students to "take charge of the concepts and theories of a course or discipline" and display an independent approach to applying these concepts and theories (p. 303). Students enter college reliant on authorities for decision-making; however, during college they must develop epistemologically mature orientations rich in complexity in order to attain graduation outcomes (Pizzolato & Hicklen, 2011). The notion of separation signals a reduction of dependence on all authorities in students' lives during college, not limited to parents and caregivers (Pizzolato & Hicklen, 2011). Therefore, the objective of reaching self-definition and autonomy may be a combination of separation-individuation, attachment, and self-authorship in

order to redefine relationships with parents. This provides a means for parents to acknowledge and nurture students' emerging autonomy while simultaneously offering support that encourages the development of skills needed to bear independence.

The intersection of separation-individuation, attachment, and self-authorship theories may also parallel the life course paradigm discussed in sociology. Parents and children lead linked lives in which there are important connections between the parent-child relationship and how children adjust emotionally and socially (Amato, 2000; McLanahan & Sandefur, 1994). Students can remain attached to their parental figures even when attending college far from home or choosing to create an emotional distance for growing and aging purposes in the spirit of separation-individuation. Furthermore, the defined break that is inferred from separation-individuation theory is more challenging in this contemporary era in which greater numbers of students are living in their parent's home during and after college (Fry, 2014). Given these societal, economic, and demographic changes in society, it is important to consider how student development theory is interpreted in contemporary higher education.

Theoretical Considerations of Gender, Race, Ethnicity, and Class

The contentious relationship between separation-individuation and attachment theorists manifests itself when associating these theories to today's increasingly diverse college student populations. Below I address theoretical commentary that argues in favor of a comprehensive psychological model that includes both separation and attachment simultaneously, while also accounting for important background characteristics such as gender, race, ethnicity, and socioeconomic status.

***Gender*.** Attachment theorists believe that for women in this age group, undergoing the transition between high school and college is defined by a concern for sustaining relationships

and remaining in close ties to family (Allen & Stoltenberg, 1995; Kenny & Rice, 1995). For women, maternal and paternal attachment is thought to lead to positive identity development (Samuolis et al., 2001). Similarly, Lee, Meszaros, and Colvin's (2009) examination of cell phone communication patterns concluded that the separation-individuation process occurs within the context of maintaining attached relations with parents (Josselson, 1988), especially for young women (Gilligan, 1982). Taub's (1997) work on female students' interactions with their families over the college years further supports the notion that attachment and individuation coexist for female students.

On the other hand, separation-individuation theorists argue that female emerging adults who are able to separate from family are better able to transition into adulthood. These women engage in less frequent communication with family and are more likely to enroll in colleges farther from home. This gives them the ability to establish greater physical distance from their family and foster relationships in the college community.

Two studies described earlier in the outcomes section (Sax et al., 2004; Sax & Weintraub, 2014) suggested value in the act of separation. First, Sax et al. (2004) found that while family relationships had no effect on men's emotional health, for women, reductions in family contact led to more positive levels in emotional health. Despite previous research espousing women's development as reliant on a secure bond with parental figures, particularly mothers, this finding suggested women's emotional health may benefit from a separation from family and non-college friends who may serve as reminders of home. Successful separation from family took the form of choosing to attend college farther from home and reducing email communication with family. Another interpretation of this finding is as follows: Perhaps those women who were able to separate from their childhood home were already more emotionally mature prior to college, and

thus more ready to survive the transition and maintain higher emotional health by the end of the first year of college.

In addition, communicating frequently with mothers predicted lower emotional well-being among college women (Sax & Weintraub, 2014). In order to gain independence and achieve higher emotional well-being during the first year of college, women may function best by engaging in quality interactions that facilitate ongoing attachment, while simultaneously establishing geographical separation by attending college farther from home (Sax, 2008) and moderating the frequency of communication with mothers (Sax & Weintraub, 2014). Desiring greater communication with fathers was associated with lower emotional well-being for both genders indicating that in some cases insufficient contact with fathers can lead to decreased emotional health. Familial influence on emotional health is an interesting gender-dependent phenomenon, and an indicator that keeping track of both parent and student gender is important when evaluating the effects of family on college student development.

Race and Ethnicity. Adapted from Van Gennep's (1960) three stages of "The Rites of Passage" into adulthood, the first stage of Tinto's (1993) theory of college student retention calls for students to separate from past associations in order to integrate into college. The underlying principle is that the integration process improves the likelihood of college persistence. Therefore, the act of separating from family and hometown friends facilitates students' integration process. Tinto's theory of student retention has come under great scrutiny by many critics, especially by scholars concerned that his theory is not culturally appropriate for most students of color (e.g., Guiffrida, 2006; Rendon, Jalomo, & Nora, 2000; Tierney, 1992). Given that this theory was developed based on a Eurocentric paradigm, critics contend the act of separation would require students of color to assimilate away from their cultural values in order

to acculturate into a campus dominated by a predominantly White perspective (Guiffrida, 2006; Kuh & Love, 2000; Rendon et al., 2000; Tierney, 1992). Aspects of attachment theory combined with separation deem it possible for students of color to identify with and remain enmeshed in their cultural heritage while also acclimating to the college campus.

For some students, separating from one's family is not a viable option. In a study of Filipina American women, students described their family and college experience as "inextricably linked" and constant challenges and negotiations surrounding the balance of family obligations, expectations and college responsibilities played a pivotal role in college decisions. Additionally, constant gender double standards posed real stressors for these students (Maramba, 2008). Students constantly faced challenges and were forced to negotiate ways to preserve their Filipina American identity while simultaneously trying to integrate on campus. They experienced "biculturalism, generally defined as a process by which individuals learn to live in two different environments, the dominant culture and their ethnic minority culture" (Maramba, 2008, p. 345).

In addition, scholars recommend a greater emphasis on how different racial and ethnic groups relate to attachment and separation-individuation theories, especially given tendencies of Asian/Asian American, African/African American, and Latinx American families to place greater value on the well-being of the family and the community over individual achievement (Mattanah et al., 2004; Triandis, 1995). Likewise, emphasis is placed on children's responsibility to fulfill family obligations (Sy & Brittian, 2008). That said, most studies do not consider race and ethnicity as a sole predictor of student-parent relationships; rather, they combine race and ethnicity with other variables such as parent education level, socioeconomic status, and gender.

Class. Regardless of race and ethnicity, social class and parent behaviors in childhood leave a meaningful and indelible imprint on educational and work outcomes through the life course (Lareau, 2011). Lareau's (2011) seminal study, *Unequal Childhoods*, is a "naturalistic observation" of the intersection of race and ethnicity, class, and family experiences for twelve families (six White, five Black, and one interracial) with children aged nine and ten years old, and then a follow-up of their lived experiences at ages 19-21 (p. 8). Overall, the middle-class families engaged in "concerted cultivation" in which they actively monitored, managed, and intervened in their children's education experiences from childhood through emerging adulthood (Lareau, 2011, p. 264). These families utilized financial resources and knowledge to help their children navigate the education system that the working-class families did not possess. Undeniably, the children from working-class and poor families in the study were loved and supported by their parents; however, the incongruence between child rearing practices and school expectations posed challenges that were difficult for these students to overcome. As such, social class matters in the process of transition and integration into the collegiate environment.

The notion of distancing oneself from family in order to acclimate and integrate into college may not apply uniformly across class lines. For students from low-income backgrounds, family economic obligations may pose challenges that prevent devoting full attention and focus on the college environment. For instance, first-generation college students must resolve the desire for upward mobility with the obligations to maintain their place in the family economic support network (London, 1989). As such, students may experience feelings of achievement guilt or a constant internal conflict (Covarrubias & Fryberg, 2015; London, 1992) as to how to balance these sometimes-competing goals of whether to pursue their dreams or remain at home

to help tend to the family. Nevertheless, support from parents of first-generation college students can still be extremely beneficial.

Lower socio-economic parents may also lack institutional knowledge, and thus have reduced involvement in academic areas. Wolf et al. (2009) pointed out that lower socioeconomic background students indicate lower levels of involvement from their parents with respect to academics (e.g., choosing classes, discussing course material and student's academic progress, and stressing good grades) than did students from higher socioeconomic backgrounds. This is likely the source of such students' reduced propensity to reach college. However, those students of lower SES backgrounds who do reach college reap greater benefits from the experience, perhaps because reaching college is an indication that they have already learned to balance these tensions or that they have parents who are able to provide encouragement (Brand & Xie, 2010). For example, in Attanasi's (1989) study, when parents of first-generation Mexican students conveyed to their children that they were "college-goers" and encouraged them to "stick it out" when experiencing challenges during college, these students were more likely to socialize into the environment and persist (p. 270). Finally, for first-generation college students, emotional support from family increases the likelihood that those students will engage with faculty and peers both in academic and social contexts (Nora, Castaneda, & Cabrera, 1993). While external commitments (e.g., maintaining relationships with students' home community and/or work and community obligations) either before or after students' integration into college pose conflict between the demands of these pressures and college tasks, the existence of a support community at home can increase the likelihood of college persistence. In addition to acknowledging college adjustment differences for low-income and first-generation college students, it is important to consider the transition experiences of students coming from immigrant families. More than 50

percent of University of California students have at least one parent who is an immigrant (Douglass, Roeblsen, & Thomson, 2007). Zhou, Lee, Vallejo, Tafoya-Estrada, and Xiong (2008) bring to light the divergent social mobility pathways of Los Angeles' new second-generation children of the post-1965 immigrants. As some students described, status of their parents' careers dramatically decreased when immigrating to the United States; however, they had educational capital from having studied in their home country. In addition, immigrant youth must also navigate conflicting environments between the identities that they have achieved or given from family and those that they've been assigned by stereotypes from school, media, and society (Suárez-Orozco & Qin, 2006). While their parents may be highly educated, the lack of familiarity with the US higher education system poses some challenges for students' adjustment and integration. For these reasons, this study controls for immigration status in order to avoid conflating it with class effects that are a result of immigration status.

Modeling Student-Parent Interactions and College Outcomes

Theories of college student development have been slow to adapt to the shifting roles of students and parents. The psychosocial theories of student development discussed in this chapter serve as a useful lens for examining the ways in which students change during college and how parenting styles influence this development. In addition, college impact models extend these theories, contextualizing the developmental processes that occur within students during college. This section demonstrates how college impact models can serve as a conceptual means of interpreting the parental role during college and its association with college outcomes.

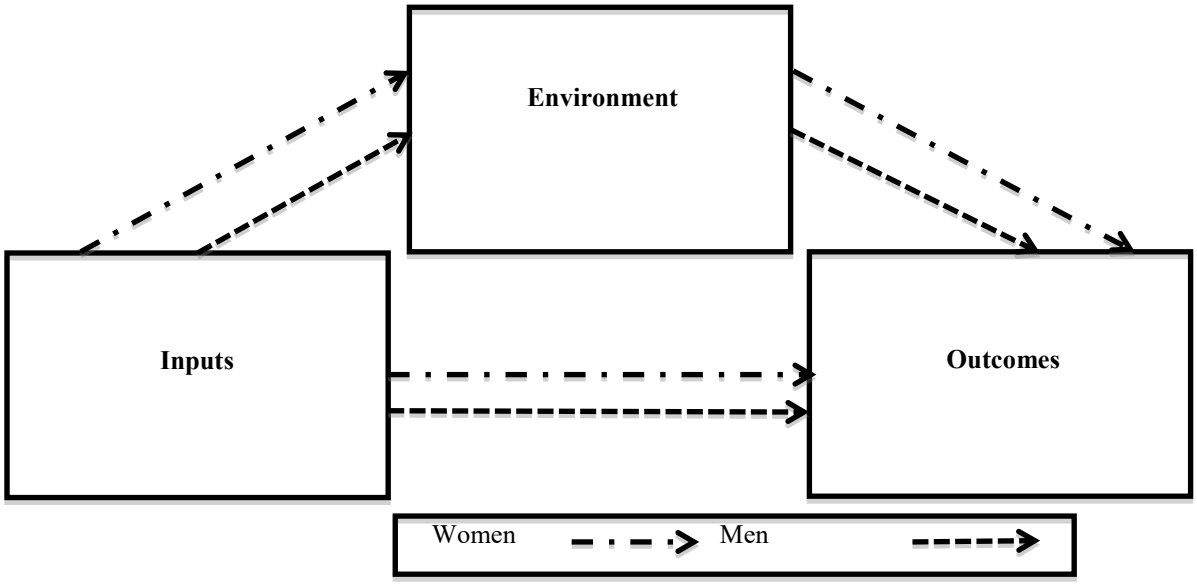
Sax and Wartman (2010) discuss in detail how models of college impact contextualize developmental processes that occur within students during college. Students' background characteristics and traits upon entering college intersect with the institutions' environment and

students' experiences during college to affect change and development (Pascarella & Terenzini, 2005). In particular, Sax and Wartman (2010) make the point that few college impact models specify a direct role for parents' influence on student outcomes. Rather, they explain how most models of college impact strictly focus on the ways in which parental characteristics, namely income and educational attainment, affect student experiences and behaviors prior to matriculation. One exception is Nora, Barlow, and Crisp's (2005) Student/Institutional Engagement Model, which includes encouragement and support from family as a precollege factor and family responsibilities as an environmental pull factor. Familial encouragement and support is very important for students' entry into college and persistence to graduation; however, knowing how to encourage and support one's college student may be uniquely challenging for families who are unfamiliar with college processes, costs, and, time commitments. Thus, familial ties should be considered throughout the college experience and not only situated as a precollege factor.

Specifically, given the evolution of parents' involvement during college, the parental role should also be considered as an environment in college impact models. Sax and Wartman's (2010) chapter describes college impact models, all based on Astin's (1993a) Input-Environment-Output (I-E-O) model, that reference family or external influences of support within the environmental context of college. This section will outline a way to connect student-parent interactions with college students' adjustment and integration through a combination of Pascarella's (1985) Model of Student Learning and Cognitive Development and Weidman's (1989) Model of Undergraduate Socialization, and applying Sax's (2008) Conditional College Impact Model in acknowledgement of differences between student groups.

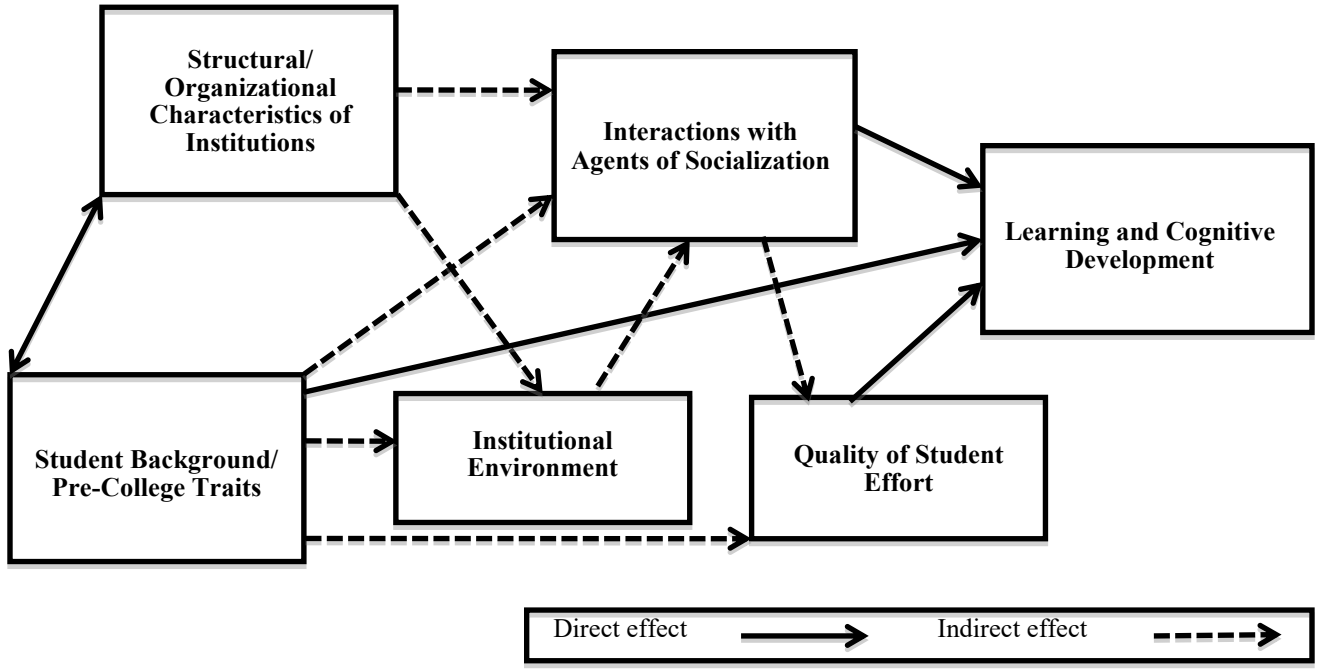
Astin's (1993a) Input-Environment-Output (I-E-O) model, the foundation for many conceptual models in higher education, suggests that college experiences affect development, after controlling for the impact of students' background characteristics and pre-college experiences (Astin, 1993a). Later, Sax (2008) extended Astin's (1993a) model by creating a model of conditional college impact. Multiple bidirectional connections between inputs, environments, and outcomes signify how these relationships may differ depending on students' background characteristics (e.g., gender, race and ethnicity, and class) (Sax, 2008) (Figure 2.1). While the traits of students' parents do affect students' college trajectory, these models do not specifically address if and how students' parents have an ongoing impact on their college experience and development outcomes.

Figure 2.1. Sax's (2008) Conditional Effects Model of College Impact



Pascarella's (1985) model (Figure 2.2) acknowledges that student and institutional characteristics predict learning and cognitive development. The model includes a dimension titled, "interactions with agents of socialization." The intent of this category is to account for the frequency and content of students' interactions with major socializing influences, namely peers and professors. Pascarella (1985) addresses implicitly that students' interactions with parents may also act in a similar fashion as they provide ongoing support and ultimately contribute to the quality of students' effort, which then impacts students' learning and cognitive development.

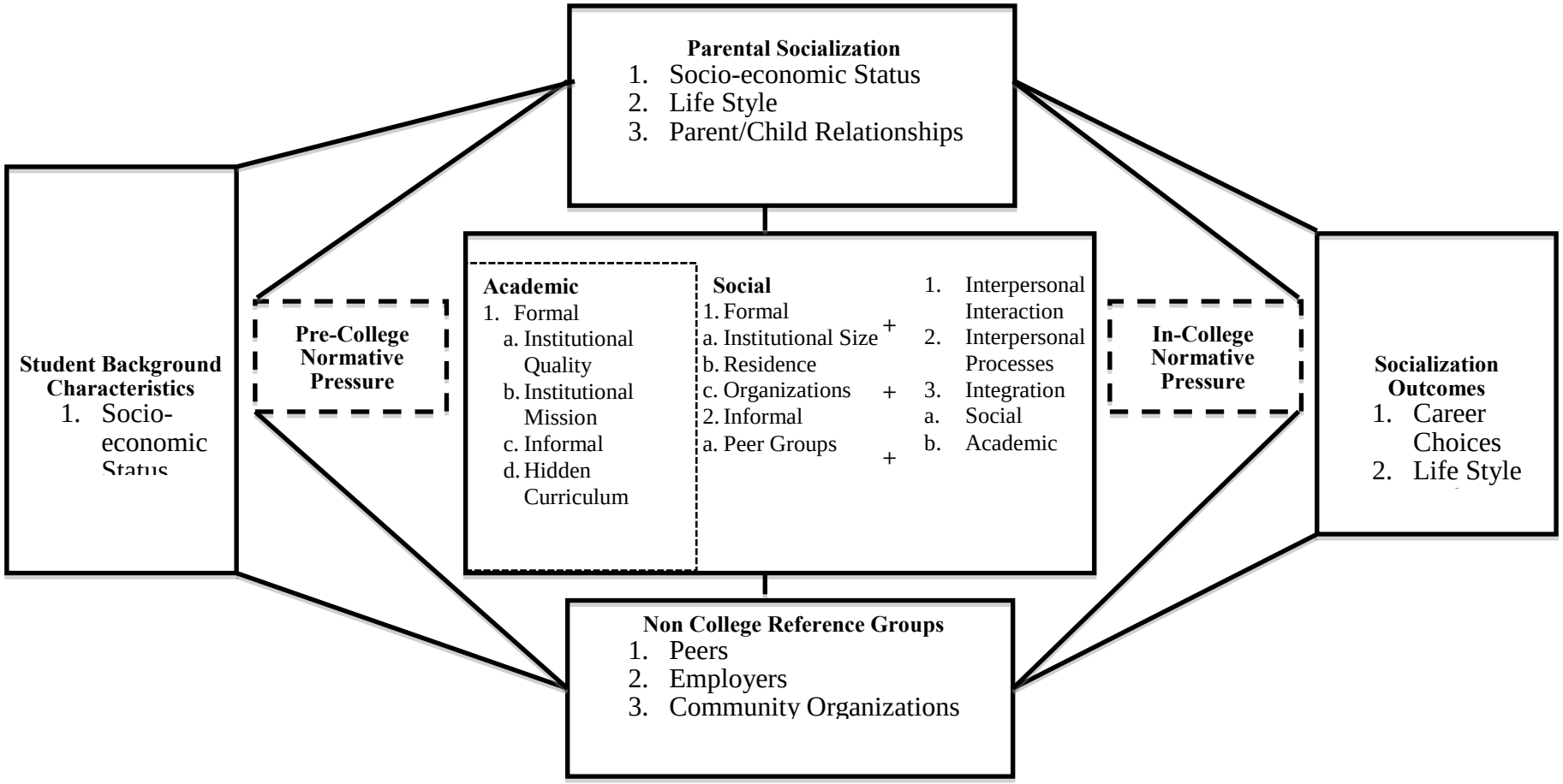
Figure 2.2. Pascarella's (1985) Model of Student Learning and Cognitive Development



Weidman's (1989) (Figure 2.3) multi-stage model of undergraduate socialization accounts for the impact of student background characteristics, as well as students' social interaction with groups outside the college context, including, but not limited to, socialization with parents. By directly acknowledging parents as a socializing force while in college this model speaks to the notion that higher education institutions are not insular environments. Students have continued contact with outside influences, and in

particular parents, during college. Relationships with parents before and during college affect students' acclimation and socialization process (Weidman, 1989).

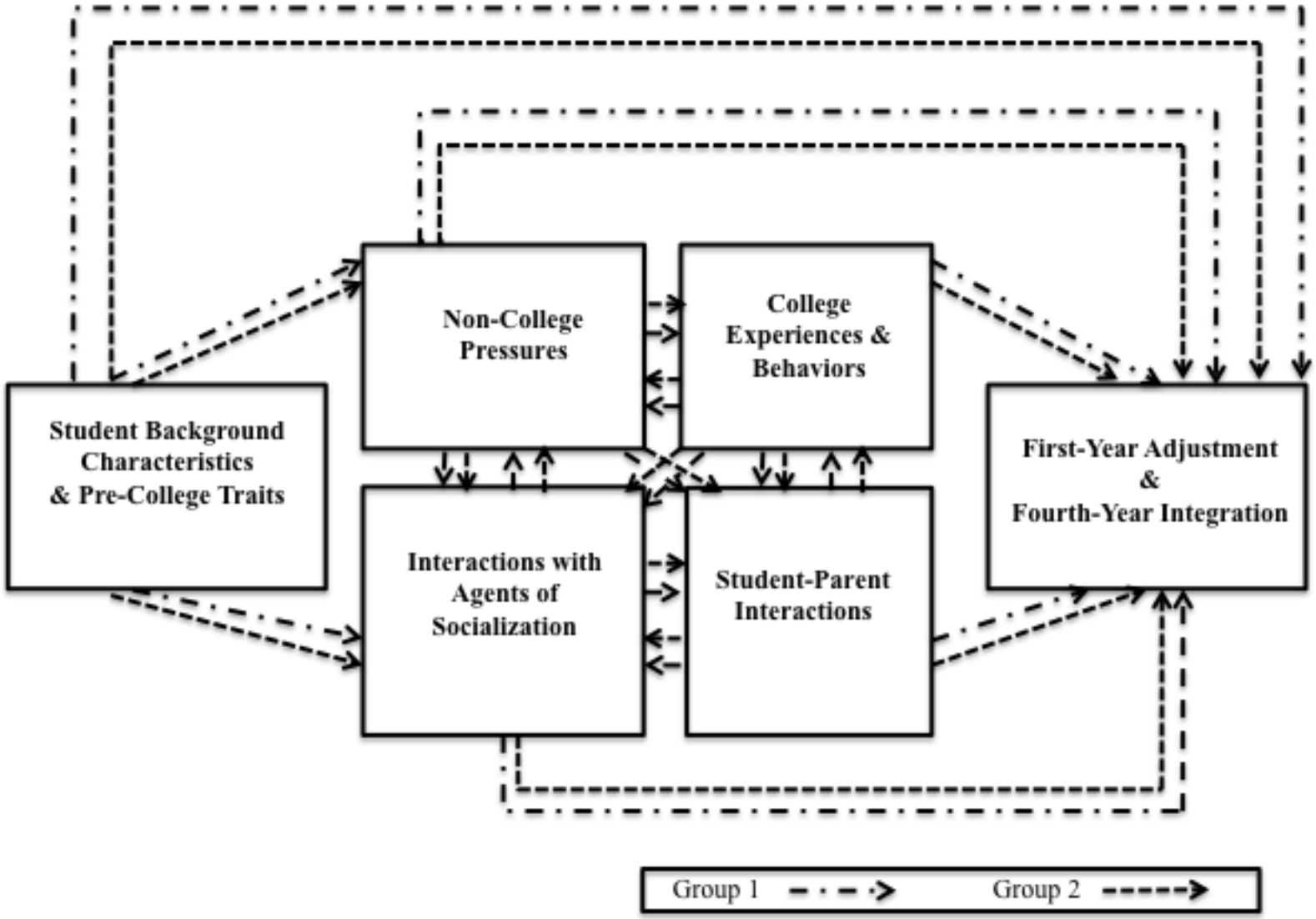
Figure 2.3. Weidman's (1989) Model of Undergraduate Socialization



Guided by Pascarella (1985) and Weidman (1989), the proposed model for the current study considers parents as an internal force that is directly integrated into students' experience alongside students' interactions with other sources of influence (e.g., peers, professors, and advisors). That is, the existing models referenced in this chapter capture the influence of the people who college students encounter throughout their time on campus. Students interact with their peers, professors, and advisors; it stands to reason that parents ought to be included in a college impact model in a similar fashion. Furthermore, the proposed model for this study (Figure 2.4) draws from Sax's (2008) Conditional College Impact Model and includes the conditional effects of parents' influence on student development by race and ethnicity, class, and gender[3]. Notably, this model demonstrates the way students' interactions with their parents during the first and fourth years of college predict their adjustment and success within a college impact model. Student-parent interactions are one form of parental involvement.

[3] The number of arrows represents the number of groups (Sax, 2008). For visual simplicity, the figure only shows two groups.

Figure 2.4. Conceptual Model for Parental Role in College



This proposed model will serve as a framework for addressing the following research questions:

Research questions

1) Nature of Student-Parent Interactions
    a. What are the frequency and mode of students' interaction with their parents during college? How does this change between the first and fourth years of college?
    b. What is students' perceived quality of and satisfaction with the type and amount of communication they have with their parents during the first and fourth years of college?
    c. How does the frequency, mode, and perception of student-parent communication vary by gender, race and ethnicity, and class?
2) Effects of Student-Parent Interactions on First-Year Adjustment
    a. How are student-parent interactions associated with key indicators of first-year adjustment (academic adjustment, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?
    b. How does the association between student-parent interactions and first-year adjustment vary by gender, race and ethnicity, and class?
3) Effects of Student-Parent Interactions on Fourth-Year Integration
    a. How are student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?
    b. How does the association between student-parent interactions and fourth-year success vary by gender, race and ethnicity, and class?

4) The Effect of Changes in the Frequency of Student-Parent Interactions on Fourth-Year Integration

    a. How are changes in frequency of student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics, college experiences, and first-year student-parent interactions?

Chapter Summary

This chapter reviewed the existing literature relating to parents' role from the beginning of their child's process of choosing college, through the adjustment process and to graduation, including the theories and conceptual frameworks guiding those research studies. First, the chapter explored how the parental role evolved historically. The historical chronology culminated in defining parental engagement in the context of student-parent interactions. Following, the chapter described the state of the research on the role of parents in college student development, while noting the areas for future study. Finally, the chapter illustrated the ways in which student development theory and college impact models interpret parent engagement. Based on the gaps in the literature, the chapter concluded with a proposed method of modeling the connection between student-parent interaction, college adjustment and integration that will be more fully discussed in Chapter Three.

The next chapter describes the research questions, their adjoining hypotheses, and details the methodology of this study. In framing the hypotheses, I will reference the extant literature and psychosocial theories described in this chapter. Additionally, I will explain how the proposed college impact model for this study will guide the selection and grouping of variables within the data analysis, and how this hypothetical model for how the college experience, and in

particular different types of interactions with parents, may influence the adjustment and integration outcomes described in the research questions.

CHAPTER THREE

METHODOLOGY

This study employed quantitative methods to examine the relationships between student-parent interactions, college adjustment, and integration outcomes at two of the prime transition points during college, and whether the relationships varied by students' gender, race and ethnicity, and class. In order to do so, this study utilized a longitudinal dataset that surveyed students at three time points: the period upon entering college (Cooperative Institutional Research Program Freshman Survey), the end of first year (Residence Life Survey), and the middle of the fourth year (Fourth Year Student-Parent Interactions Survey). Student responses to the first two time-points had been previously examined in studies affiliated with the current investigation (Sax & Weintraub, 2014; 2016) and the third time point involved new data collection. The dependent measures represented academic, social, and emotional adjustment to college and integration in college. The outcomes included: ease at adjusting academically to college (first year), academic integration (fourth year), sense of belonging (first and fourth year), and emotional well-being (first and fourth year). This chapter details the study's research questions and accompanying hypotheses, methods, sample, method of data analysis, and limitations.

Further, as described in Chapter Two, social science research portray gender, race and ethnicity, and class in a variety of ways. Despite postgenderism pushing towards a non-binary conceptualization of gender, when comparing two groups on specific dimensions (e.g., focusing on societal roles), gender typically remains as a static biological category (i.e., male and female) (Johnson & Repta, 2012). Race and ethnicity can be examined in aggregated, biologically-given or socially-constructed categories (Johnston, 2014; Williams & Eberhardt, 2008), disaggregated

into subpopulations (Teranishi et al, 2009). Class is usually portrayed as parents' total income or education attainment (Diemer et al., 2013). For the purposes of this study, gender was conceptualized as a binary measure, and race and ethnicity was categorized in a disaggregated form as recommended by Teranishi et al. (2009). Class was defined using two constructs, parents' educational attainment and parents' total income, as commonly portrayed in psychology (Diemer et al., 2009).

Research Questions and Hypotheses

This section describes the research questions guiding the study and provides accompanying hypotheses and rationales for each question.

Research Question 1:

Nature of Student-Parent Interactions

Research Question 1a. What are the frequency and mode of students' interaction with their parents during college? How does this change between the first and fourth years of college?

Hypothesis 1a. Students will communicate frequently, multiple times throughout the week, with their parents, primarily their mothers, during the first year of college. By the fourth year of college, communication will occur less often, approximately once per week. Digital methods of communication (e.g., mobile phone, text messaging, email) will be the primary modes of communication between students and parents during both the first and fourth years of college, and will be far more common than analog modes of communication (e.g., face-to-face and postal mail).

Rationale 1a. Sax and Weintraub (2014) found that first-year students communicated multiple times during the week with their mothers and multiple times monthly with their fathers.

The most common mode used was the mobile phone followed by email and text messaging. These patterns have also been seen in similar studies over the past decade (Chen & Katz, 2009; Lee et al., 2009; Wei & Lo, 2006).

Fourth-year students had the least amount of interaction with their parents compared to first-year students, sophomores, and juniors (Wolf et al., 2009). Hofer and Moore (2010) also found that fourth-year students spoke to their parents least, decreasing on average to weekly contact, primarily with mothers, through digital modes of communication.

As noted in Chapter Two, although there is little, if any, longitudinal research on the communication patterns of college students beyond their first year, two cross-sectional studies by Sax and colleagues (Harper et al., 2012; Wolf et al., 2009) found that the variation in parental contact by year in school was most visible at the extreme points (e.g., between first year students and seniors). Specifically, seniors reported significantly less contact than all other students (Wolf et al., 2009). The findings of Harper et al. (2012) describe the effects of parental involvement (see Rationale 4a).

Students' affinity towards communicating via cell phone or text message and resistance toward the landline and postal mail are analogous to media niche theory (Dimmick, Kline, & Stafford, 2000). Newer, digital forms of technology are competing with and fulfilling similar functions as older, more analog forms of communication (Schon, 2014). For example, text messages and email fulfill parallel uses; therefore, students and parents are more likely to use text messages because they are more efficient and function with a rapid response and less characters (Ramirez, Dimmick, Feaster, & Lin, 2008). Once students switch to these modes of communication from older analog types, they will tend to continue using these modes, and therefore do not expect to see a change in communication modes from first to fourth year.

Furthermore, when students embrace new information communication technologies, they are more satisfied with their parental relationships (Schon, 2014), and therefore they will continue to push for communication levels and types that maintain their satisfaction.

Research Question 1b. What is students' perceived quality of and satisfaction with the type and amount of communication they have with their parents during the first and fourth years of college?

Hypothesis 1b. Overall, students will describe interactions favorably and will be satisfied with the amount of interaction that they have with their parents during both the first and fourth years of college.

Rationale 1b. In recent studies, first-year students reported being generally satisfied with the total amount and quality of communication that they had with their parents (Hofer & Moore, 2010; Sax and Weintraub, 2014). In both studies, the minority of dissatisfied students typically were unhappy because they had too little contact with their parents (Hofer & Moore, 2010; Sax & Weintraub, 2014). As logic would follow, fourth-year students will remain satisfied with their parental communication as long as they continue to describe it positively and do not desire more frequent communication. The use and competence of multiple forms of media devices improves students' satisfaction with their parental relationships (Schon, 2014). While the frequency of communication should decrease in the fourth year, and infrequent communication is associated with dissatisfaction, it is anticipated that students would expect a drop in communication frequency and will continue to be satisfied with their level of communication.

Research Question 1c. How does the frequency, mode, and perception of student-parent communication vary by gender, race and ethnicity, and class?

Hypothesis 1c1. Gender. Women are projected to speak to their parents daily and men at least once per week. Both genders are likely to use digital forms of communication (e.g., mobile phone and text message). Students will be satisfied with the amount of communication that they have with their parents, though women are more likely to indicate a desire for more communication with their parents, particularly with their fathers.

Rationale 1c1. Gender. Sax and Weintraub (2014) found that women communicated daily and men communicated approximately once per week with their parents. Both men and women indicated the most frequent modes used when communicating with mothers and fathers was phone followed by text messages (Sax & Weintraub, 2014). While a majority of students are generally satisfied with the amount of communication that they have with their parents, the dissatisfied minority desired more communication. In particular, daughters sought more interaction with their fathers (Hofer & Moore, 2010; Sarigiani et al., 2013; Sax & Weintraub, 2014).

Hypothesis 1c2. Race and Ethnicity. White/Caucasian students will communicate more frequently using digital modes of communication than Latinx American and Asian American students; however, White students will have less face-to-face contact with their parents than Latinx American and Asian American students. Latinx American and Asian American students will communicate weekly with their parents either by phone or face-to-face modes of interaction. Frequency in communication will be associated with perceptions of higher quality of interaction and greater satisfaction in the amount of communication. In other words, racial and ethnic groups in more frequent communication will have a higher perception of quality than those racial and ethnic groups who had less frequent communication.

Rationale 1c3. Race and Ethnicity. In a cross-sectional examination of parental engagement in students' academic lives, White students and Chicano/Mexican American college students indicated higher levels of interaction with their parents, while Japanese/Japanese American students, Chinese/Chinese American, Thai/Other Asian, and American Indian/Alaska Native students had lower levels of contact, compared to all other racial and ethnic groups (Wolf et al., 2009). The students in Wolf's (2011) qualitative study, a majority of whom were Latinx, communicated with their parents "equal to or less than five hours per week, largely by phone or in person" (p. 94). Taken together, this suggests that these racial and ethnic groups have a lower frequency of interaction with parental figures than do White students, and therefore they are expected to report weekly contact rather than the daily levels of contact found among White first-year students.

Hypothesis 1c3. Class- Status as a First-Generation College Student. Students with college-educated parents are more likely to talk frequently about college-related matters relying on digital modes of communication with their parents than first-generation college students. However, first-generation college students are likely to have weekly communication with their parents, with a majority being in-person interaction. First-generation college students are predicted to be as satisfied with the amount of communication that they have with their parents compared to students with college-educated parents. While the amount of communication will be similar for all groups based on parental educational attainment, the modes and quality are likely to be different depending on the college knowledge and level of education of parents.

Rationale 1c3. Class- Status as a First-Generation College Student. Based on social capital theory, continuing-generation college students indicate significantly higher levels of parental involvement than students from less affluent backgrounds (Wolf et al., 2009, p. 347).

First-generation college students are more likely to experience in-person contact with their parents as their mode of communication as they are more likely to be living at home (Lohfink & Paulsen, 2005) and/or have family responsibilities that require returning home on a regular basis, rather than using technology to maintain a long-distance relationship (Wolf, 2011).

Hypothesis 1c3. Class- Parent Income. Students of higher socioeconomic status will communicate more frequently with their parents compared to college students from lower-income quartile groups. Across income quartiles, I do not expect any significant differences in quality and satisfaction to emerge.

Rationale 1c3. Class- Parent Income. Similar to continuing-generation college students, students of higher socioeconomic status were more likely to have frequent communication with their parents using multiple modalities (Abar et al., 2013; Wolf et al., 2009). Based on social capital theory, more affluent and continuing-generation college students indicate significantly higher levels of parental involvement than students from less affluent backgrounds (Wolf et al., 2009, p. 347). The level and nature of parents' involvement in their children's academic success is fundamentally contingent upon the parents' expertise, skills and interests, and resources also referred to as domain-specific parental involvement and transmission of family social capital (Coleman, 1988; Hoover-Dempsey & Sandler, 1997; Ma, 2009). Parents share their resources and abilities through involvement in academic matters, but also transmit their values and preferences for particular college programs (McDonough, 1997), course-taking patterns (Valadez, 2002), and co-curricular academic activities (Lareau, 2002). Taken together, students from higher socioeconomic backgrounds and first-generation college students may seek more frequent contact from parents in order to benefit from their educational capital (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

Research Question 2:

Effects of Student-Parent Interactions on First-Year Adjustment

Research Question 2a. How are student-parent interactions associated with key indicators of first-year adjustment (academic adjustment, emotional well-being, and sense of belong), controlling for student demographic characteristics and college experiences?

Hypothesis 2a. Measures of students' perceived quality of and satisfaction with parental interaction will predict improved first-year adjustment, whereas more frequent interaction will have a negative association with adjustment.

Rationale 2a. Student-parent interactions have in the past been found to show a small yet significant association with first-year adjustment (Sax & Weintraub, 2014; 2016). Notably, students who were satisfied with the amount of interaction that they had with parents and those who perceived the interactions to be of higher quality were seen to have more positive levels of adjustment. On the other hand, those students in more frequent communication with their parents yielded lower levels of adjustment. Sax and Weintraub (2014) found a similar model of student development; therefore, the same pattern of a positive association with quality and a negative association with increased frequency is likely to persist. Previous research also suggests that ongoing communication with parents is observed among students with better first-year adjustment (Sarigiani et al., 2013; Wintre & Yaffe, 2000), yet cautions that maintaining too frequent contact can lead to negative adjustment (Hofer & Moore, 2010; NSSE, 2007).

Research Question 2b. How does the association between student-parent interactions and first-year adjustment vary by gender, race and ethnicity, and class?

Hypothesis 2b1. Gender. Quality of interactions with parents will have a more positive and significant influence on the adjustment of women, as compared to men.

Rationale 2b1. Gender. With regards to gender and the first year of college, Sax and Weintraub (2014) found that perceived quality of interaction was positively associated with emotional well-being, yet increased quantity of interaction produced lower levels of adjustment for both men and women. This indicates that content of the interaction and frequency of interaction are both important, and are associated with positive results.

Hypothesis 2b2. Race and Ethnicity. Increases in both quantity and quality of parental interaction will be associated with increased levels of adjustment for students of color.

Rationale 2b2. Race and Ethnicity. Family support promoted higher emotional well-being for non-White students' adjustment to a predominantly White institution (Barnett, 2004). In particular, family support provided benefits to first-year students of color as it helped them transition to college and cope with challenges such as homesickness and separation from family and friends (Hurtado, Carter, & Spuler, 1996).

Hypothesis 2b3. Class- Status as a First-Generation College Student. Increased quality of communication are likely to be associated with higher levels of adjustment for both first-generation students and students with college-educated parents, while increased quantity is not likely to be a significant predictor of adjustment.

Rationale 2b3. Class- Status as a First-Generation College Student. Income and educational attainment both matter in students' perceptions of family support and college adjustment (Elkins, Braxton & James, 2000). Perceptions of family support increase with rises in parent income biasing first-generation students from low-income families. On the other hand, engagement, encouragement, and emotional support provided by family in students' college experience is associated with positive educational and psychological adjustment (Wolf, 2011).

Hypothesis 2b3. Class- Parent Income. Similar to my hypothesis for status as a first-generation college student, I predict increased quality of communication will be a positive predictor of adjustment for both first-generation students and students with college-educated parents, while increased quantity will not produce any significant findings.

Rationale 2b3. Class- Parent Income. Income and educational attainment both matter in students' perceptions of family support and college adjustment (Elkins, Braxton & James, 2000). While the theory of social capital is typically used to examine parental involvement in college access, it may also pertain to the study of adjustment and transition (Sax & Wartman, 2010). College students' relationships with their parents and family help students access and gain important tangible and symbolic resources in the forms of human and education capital (Coleman, 1988; Sax & Wartman, 2010). For instance, due to college-educated parents' social networks and prior college experiences, parental involvement can facilitate their children's success at navigating the college admissions process (Coleman, 1988; Sax & Wartman, 2010). Perna and Titus (2005) found that greater levels of parental involvement were associated with a propensity for students to enroll in higher education immediately following high school graduation. Their study defined social capital as the following three forms of parental involvement: parent-student involvement, parent-school involvement, and parent-to-parent involvement (Coleman, 1988; Sax & Wartman, 2010). The present study focuses exclusively on parent-student involvement as a form of social capital.

Research Question 3:

Effects of Student-Parent Interactions on Fourth-Year Integration

Research Question 3a. How are student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?

Hypothesis 3a. After accounting for students' experiences prior to college matriculation and college experiences and behaviors, students' interactions with their parents will have a small but positively significant association with fourth-year integration.

Rationale 3a. No current studies have strictly focused on the fourth year of college when examining the relationship between student-parent interactions and college success. However, some studies consist of students across all academic years. For example, in a study of students' decision-making behaviors during college, Pizzolato and Hicklen (2011) reveal that a majority of students were not reliant on parents to make decisions; rather, they served in a consultative role. Furthermore, given what is known about the salient role that peers play during the college experience coupled with the findings from Sax and Weintraub (2014; 2016) that found aspects of social integration had a more salient role in students' adjustment, it is likely to be the case that quality of parent interactions will have a small impact on students' fourth year outcomes.

Research Question 3b. How does the association between student-parent interactions and fourth-year integration vary by gender, race and ethnicity, and class?

Hypothesis 3b1. Gender. Quality of communication is likely to be more strongly positively associated with fourth year integration outcomes for women as compared to men. In addition, frequency of communication with parents is likely to be negatively associated with success outcomes for women, but will not be significant for men.

Rationale 3b1. Gender. Sax and Weintraub (2014) found that perceived quality of interaction was positively associated with emotional well-being during the first-year, yet

increased quantity of interaction produced lower levels of adjustment for both men and women. This indicates that it is the content of the interaction that is important, rather than the frequency. While the levels of interaction are expected to decrease in the fourth year, the quality of that interaction should remain salient in predicting successful outcomes in the fourth year of college. Students will transition to getting more influence from peers and faculty (Astin, 1993b), somewhat reducing the magnitude of the parent effect, but it is unlikely to disappear entirely.

Hypothesis 3b2. Race and Ethnicity. Students from some Asian and Latinx groups will show stronger links between quality of interactions and social and emotional outcomes compared to their White counterparts.

Rationale 3b3. Race and Ethnicity. Family support has been shown to provide greater benefits to first-year students of color relative to White students as it helps them transition to college and cope with challenges such as homesickness and separation from family and friends (Hurtado et al., 1996). Furthermore, many students from Latinx American and Asian American families come from a community-oriented cultural upbringing that values close relationships and maintenance of strong family ties (Wolf, 2011).

Hypothesis 3b3. Class- Status as a First-Generation College Student. First-generation college students will benefit more from the perceived quality of interaction than the quantity of interaction than students with college-educated parents.

Rationale 3b3. Class- Status as a First-Generation College Student. The actions of student-provided support to their families (e.g., household responsibilities, financial assistance, childcare, taking care of elderly relatives) serve as good preparation for college in terms of managing spending and being aware of the costs of living independently (Wolf, 2011). Therefore, these familial obligations (e.g., contributing to the needs of family) during college

may predict greater success for first-generation college students compared to continuing-generation students. On the other hand, the nature of providing these forms of support leads to these students being in more frequent contact with their families. Students in these situations described their parents as “too involved” or "too attached" in ways that hindered their social and academic experiences. For example, one student explained that her mother "holds grudges" against friends after they failed to be of help, even after they reconciled (Wolf, 2011). Another student in Wolf’s (2011) study reported that a father's contributions to educational expenses created an open door for him to dictate which major she should pursue, or students felt guilty over support provided by family. In summary, high quality of interaction may lead to positive integration outcomes; however, too frequent communication may have unintended negative consequences.

Hypothesis 3b3. Class- Parent Income. Students from lower-income quartiles will benefit more from the higher quality of interaction compared to students from higher-income quartiles. In addition, quantity of interaction will be a negative predictor of fourth-year integration for students from lower-income quartile more so than students from higher-income quartiles.

Rationale 3b3. Class- Parent Income. The hypothesis is based on literature that suggests students from lower-income quartiles maintain familial responsibilities during college (e.g., childcare assistance, financial support) that may divert these students attention away from their academic and social integration (Tinto, 1993). However, familial support can also equip students with valuable skills in time and financial management (Wolf, 2011). If students are able to integrate their personal experiences with their college responsibilities, then this may be a positive predictor of their integration. On the other hand, the nature of providing these forms of support

may be associated with increased contact with their families. Students in these situations described their parents as “too involved” or "too attached" in ways that hindered their social and academic experiences. For example, one student in Wolf’s (2011) study explained that her mother "holds grudges" against friends after they failed to be of help, even after they reconciled. Another student reported that a father’s contributions to educational expenses created an open door for him to dictate which major she should pursue, or students felt guilty over support provided by family. In summary, high quality of interaction may lead to positive integration outcomes; however, too frequent communication may have unintended negative consequences.

Research Question 4:

The Effect of Changes in the Frequency of Student-Parent Interactions on Fourth-Year Integration

Research Question 4. How are changes in the frequency of student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics, college experiences, and first-year student-parent interactions?

Hypothesis 4. Students who have larger decreases in their parental interactions are likely to have greater levels of self-assurance and less need for parental support. This means that these students are likely to have a more positive emotional outlook, be better situated academically, and feel more connected to the university. Those students who experienced improved quality of interaction are likely to exhibit increased academic integration, sense of belonging and emotional well-being.

Rationale 4. As referenced in the rationale for Research Question 2, in a cross-sectional examination between the frequency of student-parent interactions and parents’ involvement in

their college-age students' academic decision-making with students' personal, social, and academic integration, the consequences of parental involvement vary by year in school. This finding promotes college impact models by illustrating ways in which parents can serve as "agents of socialization and environmental influences" in students' adjustment and integration (Harper et al., 2012, p. 151; Pascarella, 1985; Weidman, 1989).

Furthermore, despite the lack of any current longitudinal studies that examine changes in the relationship between student-parent interactions and integration outcomes, explanations of students' process towards self-authorship can also offer some perspective. While Baxter Magolda's (2001) original hypothesis indicated that self-authorship emerged after college graduation, her Learning Partnerships Model (LPM) demonstrates ways undergraduates can exhibit self-authorship behaviors during college (e.g., considering dual perspectives and questioning assumptions). Wawrzynski and Pizzolato (2006) further investigated the associations between undergraduate student characteristics, the college environment, and self-authorship development in a longitudinal study of residential first-year students. Life on campus exposed students to diverse interactions and experiences; this exposure may function as a catalyst for self-authorship, forcing students to question their assumptions and alter their beliefs (Baxter Magolda, 2001, 2004; Wawrzynski & Pizzolato, 2006). Students who display these behaviors show a greater locus of control of their environment, and this is expected to be associated with better emotional health, greater academic outcomes, less frequency of communication with parents, and greater quality interactions as students assert their psychological growth.

Conceptual Model

Having examined the research questions and accompanying hypotheses, this section details the conceptual model guiding this study. The conceptual model for this study was based on Pascarella's (1985) model of environmental influences and Weidman's (1989) model of undergraduate socialization, which both reference parent roles during college. This study's model helped to identify the independent measures for inclusion in the regression models, as well as inform the hypothesized direction of the effects. The main premise of the current study's model was that parents maintain an ongoing role in their college-aged children's college experience.

Furthermore, the current investigation acknowledged that the relationship between student-parent interactions and the outcomes may operate differently by gender, race and ethnicity, and class. The undergirding philosophy of Pascarella (1985) and Weidman (1989) was applicable as their models speak to students who are negotiating competing familial, cultural, and academic expectations. Additionally, because variables such as gender, race and ethnicity, and class can affect the outcome of student-parent interactions differently, this study also incorporated Sax's (2008) model of conditional effects, which factors in these variables. Finally, Astin's (1993a) input-environment-output model served as a guide to understand how college experiences, and student-parent interaction in particular, influenced students' college adjustment and integration. Accordingly, and as shown in Figure 3.1, the variables for the present study were blocked in the following temporal sequence: 0) pretest (when applicable), 1) student background characteristics/pre-college traits, 2) non-college pressures, 3) college experiences and behaviors, 4) interactions with agents of socialization, and 5) student-parent interactions.

While this study's model integrated particular blocks from both Weidman's (1989) and Pascarella's (1985) models, it also modified and eliminated some of the blocks from these

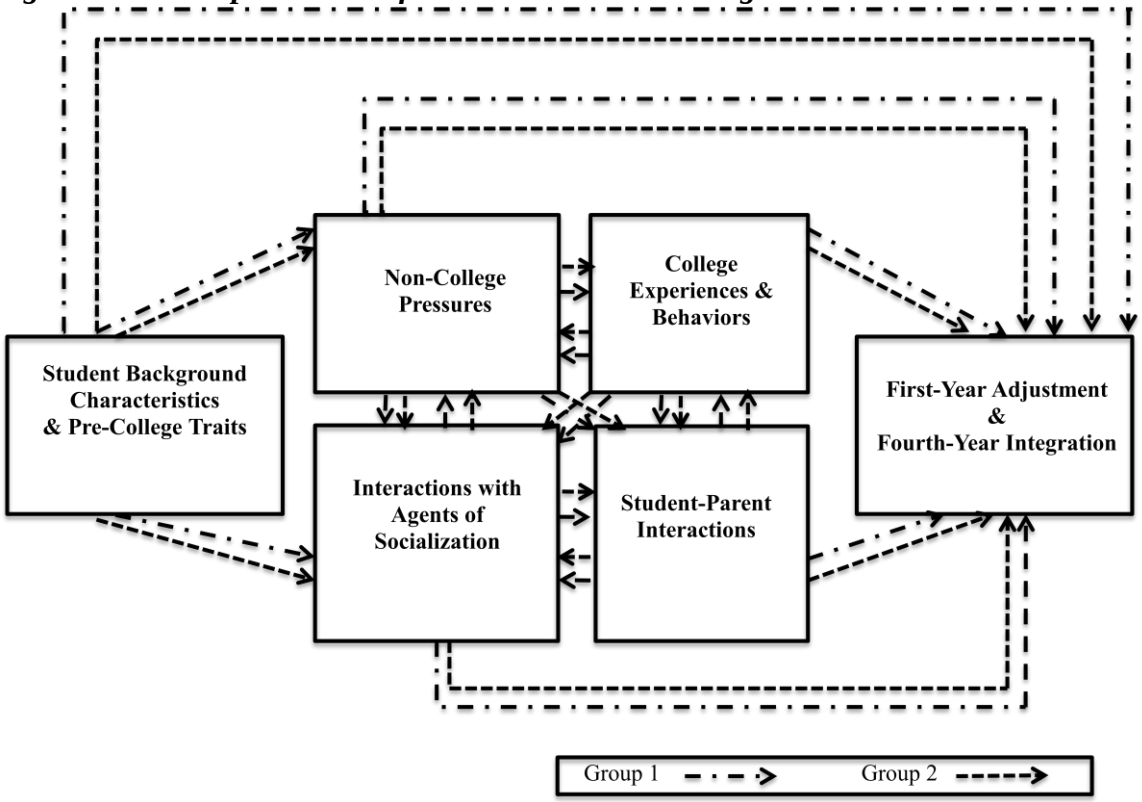
models. For example, Pascarella's (1985) model included measures referred to as "structural/organizational characteristics of institutions." However, since the present study only examined a single institution, the "structural/organizational characteristics" block was excluded. The institutional environment block from Pascarella's (1985) model was also expanded to include college experiences and behaviors. Additionally, the present model included Weidman's "non-college reference groups" block to account for non-college pressures (e.g., working off-campus, maintaining contact with high school peers).

When considering environmental influences in college, Pascarella (1985) placed emphasis on both the characteristics of the institution (e.g., size, selectivity) and the institutional environment itself, presenting them as two separate blocks. In this study, these aspects of the college environment were brought together in a "college experiences and behaviors" block. This modification more accurately supports the extant research that addresses the effect of students' choices of activities and involvements in college on their adjustment and integration; consequently, "college experiences and behaviors" was included in the study and served as control variables. As in Pascarella's (1985) model, this block was expected to operate both directly and indirectly in students' process of adjustment and achieving integration in college. Next, the measures of "quality of student effort" from Pascarella (1985) were relabeled to "level of student effort" in order to more accurately describe the variables in this study.

Finally, Pascarella's "interactions with agents of socialization" block was split into two separate blocks. The first block aligned with the original model and identified as interactions with the primary agents of socialization on campus, namely interacting with peers, professors, academic advisors and student affairs administrators. Then, the second block was student-parent

interactions, which served as a proxy for Weidman's (1989) "parental socialization" block, and included the types and nature of interactions between students and their parents.

Figure 3.1. Conceptual Model for Parental Role in College



Data Collection

Site

This investigation took place at a large, public, research university on the west coast (referred to in this study by the pseudonym West Coast University). WCU offers bachelor's degrees in more than 125 academic disciplines and serves over 28,000 undergraduates who pass a highly competitive evaluation process for admission. WCU receives the highest volume of undergraduate applications among its peer institutions. In 2014, the number of applications totaled greater than 86,000; approximately one in five students were offered admission. As a land-grant institution funded by state taxpayers, 72% of its incoming first-year students enrolled in the Fall 2013 academic quarter came from California, with the remaining proportion representing 46 other U.S. states and 80 foreign countries.

At the time of the first phase of the data collection, West Coast University (WCU) enrolled a total of 5,825 first-year students during the 2011-2012 academic year, of which approximately 94% lived in university housing. With respect to racial and ethnic background, undergraduate students are 30 percent Asian, 28 percent White, 20 percent Hispanic, 3 percent African American, 5 percent bi- and/or multi-racial, less than 1 percent American Indian/Alaskan Native, and less than 1 percent Pacific Islander. The average GPA for these admitted incoming first-year students was 4.25, with a mid-range SAT score between 1760 and 2140. Over half of WCU undergraduate students received some sort of financial aid, and these students are among the highest percentage of any top-tier university in the country to receive Pell Grants.

WCU is a compelling research site for the current study as the campus population is large with a diverse set of socioeconomic and racial and ethnic backgrounds. This presents an opportunity to observe as much of the diversity spectrum as possible at a single institution.

Furthermore, WCU is an interesting site to study student-parent interactions. A large number of parents are local residents, but there is also a wide variety of more distant parental locations represented, both domestically and internationally represented, which gives a potentially broad spectrum of student-parent communication patterns. Finally, it is evident that the institution is attempting to address changes in the student-parent-institution dynamic and devoting resources to manage parental contact through its establishment of a parent office. Over the past five years, this office has grown in staff and has added an assessment component to its mission. These actions, coupled with a dual reporting structure to development and student affairs, demonstrates the knowledge that parent involvement is a multidimensional topic and vital to higher education.

Survey Instruments and Sampling History

In this study, data were collected through two original surveys and a national instrument that served as a pretest assessment for the outcome measures. Specifically, the data were drawn from the following three sources: (1) the 2011 Cooperative Institutional Research Program (CIRP) at UCLA's Higher Education Research Institute's (HERI) Freshman Survey (TFS), (2) the research site's 2012 residential living survey (RL), and (3) the student-parent interactions follow-up instrument (SPI), which was administered in winter 2015. Participants were asked to enter their student identification (ID) number on the TFS, RL, and SPI surveys. The research site's information and research office used the student ID number to link responses and associate the TFS and RL data; they also matched the SPI data to the TFS and RL responses. The following paragraphs provide details regarding the specific survey instruments, including how they were constructed, the student sample, and the variables that were used in this study. I will explain each of the surveys in the order in which they were administered and data were collected.

(1) CIRP TFS. The fall 2011 Cooperative Institutional Research Program (CIRP) Freshman Survey (TFS) was administered to incoming and direct entry first year students. Matriculating students completed this paper and pencil survey during summer orientation in order to establish an initial measure of student traits, skills, and experiences, seemingly before students commence their adjustment and integration process with the college environment (Pryor, DeAngelo, Palucki Blake, Hurtado, & Tran, 2012). The TFS encapsulates a biographical sketch and demographic data about students prior to college entry, including parental education, parental income, high school activities, scholastic aptitude, and students' values and self-concept. In addition, the researcher and a faculty member added six supplemental questions in order to assess the level of parental influence during high school (e.g., initiating contact with high school teachers, influencing the choice of classes in high school, involvement in the college admissions process). Altogether, 4,184 (72%) undergraduate students from the institution's total incoming freshman enrollment of 5,825 students completed the TFS prior to matriculation in fall 2011 and furnished their student identification number used to link their TFS responses to the other survey data. Of the incoming first-year students who completed the TFS, 95.6% indicated that they planned to live in some sort of university residence their first year of college (e.g., college residence hall, fraternity or sorority house, other campus student housing). Only 3.1% intended to live with their family or other relatives and 1.3% anticipated living in a private home, apartment, or room. Because the current study only includes students living in the residence halls and it does not include the entire population, I used the full TFS sample to explore whether there were differences in the gender, racial and ethnic, and class composition between students who did and did not plan to live on campus during their first year of college. There were no differences in gender, race and ethnicity, and class among students who anticipated living in

university housing compared to those students who planned to live with family or other relatives. The 2011 TFS instrument is located in Appendix A-1.

(2) RL Survey. Students living in residential housing were invited to participate in the institution's annual residential living survey (RL) in spring 2012. Specifically, a subset of students who completed the fall 2011 TFS completed this web-based survey. Of the approximately 10,000 students across all academic years who lived in on-campus housing received an email invitation to participate, 3,413 students (34%) followed the web link to complete the survey. Taken together, the population of this study came from the subset of 1,331 first-year students who completed both the TFS and RL surveys and provided a student identifier to link their responses. It is important to note that only 1,155 of the students who completed the RL Survey answered the questions on the parent engagement module.

The profile of students who responded to the parent engagement module included a majority of students who identified being raised by a mother and father only (83%). Four percent indicated a combination of one parent and a stepparent of the opposite gender as the primary parental figures in their life. An additional four percent described an alternative parental structure in their life, which included same-sex parents, adopted parents, or legal guardians.

Students then differentiated between the parental figure with whom they interacted with the most (Parent 1) and second most (Parent 2). In the two published articles using these data (Sax & Weintraub, 2014, 2016), the decision was made to compare students' interactions with mothers and fathers because they constituted the majority of the sample and because of insufficient numbers in the alternate arrangements. A total of 995 students specified one mother (or stepmother) and one father (or stepfather) as the two parental figures they communicated with the most. Parent 1 was identified as the mother (82.3%), followed by the father (17.5%),

stepmother (0.1%), or stepfather (0.1%). Parent 2 was typically described as the father (80.7%), followed by mother (17.5%), stepmother (0.1%), or stepfather (1.7%). The gender breakdown of this sample was 63% female and 37% male. The racial and ethnic distribution was 43.8% Asian American, 32.5% White, 15.4% Latinx, 1.5% African American/Black, and 5% international students. Female and White students in the sample were slightly overrepresented compared to the population at the institution and the number of international students were underrepresented, but otherwise the sample was representative of the racial and ethnic composition at the institution. Among the sample, 14.6% were first-generation college students (i.e., neither of their parents attended college). The median income of the sample was $86,575[4].

The purpose of the RL survey was to offer residents an opportunity to comment on their experience living in campus housing, provide feedback on their experience with the residential community's programs and services, and assess how well the Residential Life Office's programs and services met the students' needs and the department's intended goals. In addition, a parent engagement module, which consisted of an additional 40 questions measuring students' frequency, mode, and satisfaction with their parental communication during college were added to the survey instrument.

Unique to this survey, students described their parental figure(s) using survey items that were inclusive of more diverse family structures (e.g., same-sex parents, step-parents, legal guardians) (Goodwin, 1999; Tierney & Auerbach, 2005; Wolf, 2011). Students gave in depth responses on up to two parental figure(s) by indicating the parent the student communicated with the most (Parent 1) and the second most (Parent 2). The survey also included a question that

[4] Parental income was a categorical variable on a 14-point scale that ranged from 1= "Less than $10,000" to 14= "250,000 or more". To calculate the median, I determined the response category, which contained the median and then calculated the point within that response category where the median would fall given a uniform distribution within the category.

prompted students to indicate all of the parental figure(s) who have served in their life in order to ascertain the family configurations in this sample.

The researcher and a faculty member designed and pilot tested the survey among 15 students in a student affairs graduate program in order to assess the reliability and comprehensibility of the instrument. Finally, the outcome measures were adapted from the Your First College Year Survey (YFCY), national follow-up to the TFS survey, and obtained for use with permission from the CIRP administration. The following incentives were used to promote student participation: all Resident Assistants that met the participation threshold for their community received a $100 Pizza Party voucher; five iPad drawing winners; one iPod Touch drawing winner. The RL survey instrument is located in Appendix A-2.

(3) SPI. Students who completed the RL survey in Spring 2012 received an email invitation including an informed consent form from the institution's Student Affairs Information & Research Office (SAIRO) and Registrar Office co-signed by the researcher and a campus administrator during the Winter quarter three years later (2015) inviting them to participate in a follow-up questionnaire in *Qualtrics*. Participation was voluntary and the confidentiality of all participants was assured. The follow-up survey to students three years later was a repeated measure of the RL survey that was designed to ascertain the influence of students' interactions with their parents on integration outcomes and how communication patterns with their parents evolved during college. This survey was composed of a majority of the questions and outcome measures that mirror the RL survey. Most of the outcome measures are follow-up assessments from the first-year accounts (e.g., emotional well-being and sense of belonging).

When constructing a reliable and valid survey instrument, a number of important quality control considerations were made. The first step I took was a careful review of the literature and

research questions to ensure a clear understanding of the gaps in the literature and how my research questions would contribute to the field and higher education scholarship. Second, when constructing the survey items, I made sure the questions led to accurate measures that corresponded to the stated research questions by facilitating a focus group including four students from the target population with a note taker present to elicit viewpoints and experiences related to how these students made academic decisions and whom they turned to for social and academic support matters. These students' responses were instrumental in devising the added measures related to academic integration and communication patterns with sources of influence. Following this, I held some additional one-on-one interviews with students with a similar method employed as the focus group. Next, all students who participated in the focus group and interviews received the survey via email and were asked to complete it. Then, I debriefed the students and asked them for information as to how they comprehended the questions. Survey questions were revised accordingly after consideration of the feedback I received from focus group and interview participants. An expert committee reviewed the survey. Finally, graduate students took the survey to ensure there were no errors or glitches in the functionality of the survey.

The survey, was programmed in *Qualtrics*, and administered to students through a web link embedded in an email sent from the university's Registrar and Student Affairs Information and Research Office. The email was co-signed by a campus administrator who also assisted with recruitment in the RL survey. SAIRO provided the student identification numbers to the Registrar for the 1,331 students in the original dataset who completed the TFS and RL surveys. The Registrar's Office sent all currently enrolled students one email invitation plus one additional reminder to participate in the survey. As a result of students who were no longer

enrolled at the university (e.g., either dropped out, delayed reaching fourth year, graduated early, transferred, or opted not to participate), 128 cases were not contacted. Thus, a total of 1,203 students received the email invitation to complete the follow-up survey.

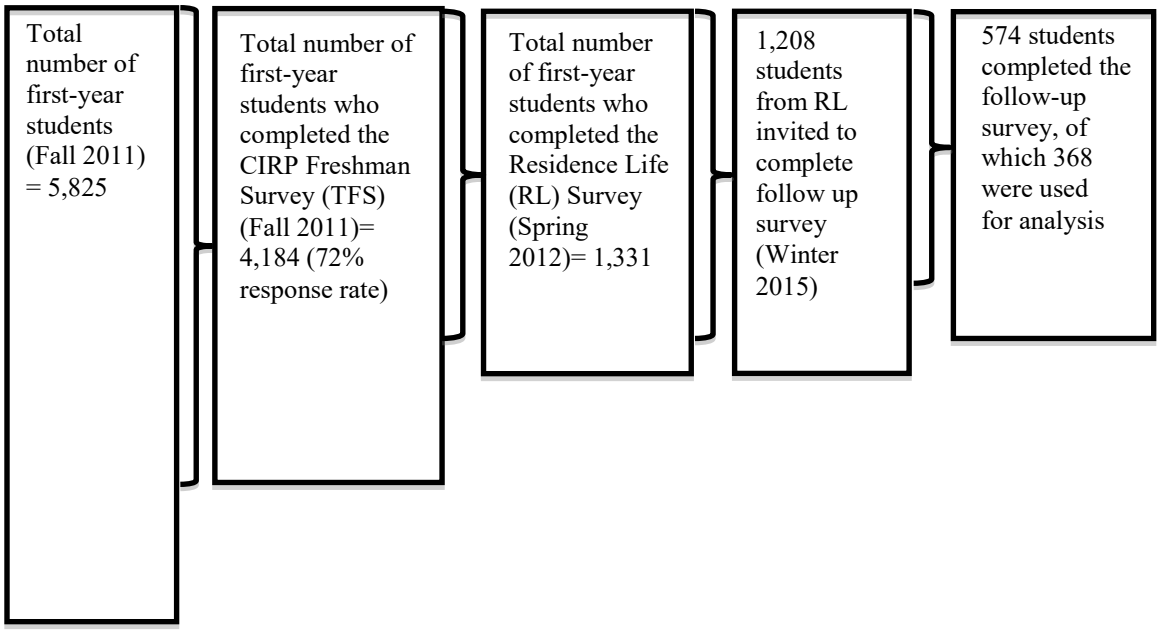
To compensate participants for their time and potential lack of interest in the topic (Groves et al. 2006), all students who completed the survey received a guarantee of $3 in Easy Pay on their University ID card that was redeemable at any on-campus eatery, vending machine, University bookstore, computer lab, or residence hall laundry machine. In addition, certain establishments in the local community accept this form of payment (e.g., restaurants, pharmacy, grocery store). As an additional incentive for completing the survey within the first 72 hours, students received $5 Easy Pay on their University ID (instead of $3). In order to receive this incentive, the final question of the survey directed students to a separate screen where they were asked to enter their first/last name and student identification number. Students' personal information was separated from the data and given to the institution for processing the incentive. Once the incentives were disbursed, personal information was destroyed.

In addition, one of the primary aims of this study was the longitudinal nature of the data. Therefore, the first question of the survey asked students to enter correctly their student identification number. Instructions explained that the ID number will link their responses to the two surveys they previously completed during their first year (2011 TFS and 2012 RL survey). The ID field was restricted to nine numerical digits as a step toward ensuring the ID was entered accurately, as incorrect ID numbers would not be able to be linked with previous data. In addition, there was a checkbox for students to acknowledge that they understood their responses would be linked to the two surveys previously completed.

A web-based survey afforded students with the convenience of participation on their own time. With that said, intentional and creative efforts were critical to ensure a satisfactory response rate. The researcher received two research grants from the association for Student Affairs Administrators in Higher Education - NASPA Foundation and NASPA Region VI to fund the costs associated with data collection. The SPI survey instrument and Research Information Sheet are located in Appendix A-3. Copies of the email invitations sent to students are located in Appendix B and the participant information sheet is located in Appendix C.

Using these data provided a number of benefits to the current study. First, as a longitudinal dataset, the 2011 TFS linked with the 2012 RL survey and the 2015 SPI survey examined students' adjustment and integration over time, net of pre-college characteristics. The CIRP surveys have been administered for over forty years and have been found to be a reliable indicator of college students' backgrounds, characteristics, and experiences. Designing a new survey instrument enabled the researcher to directly ask questions specifically related to the study itself.

Figure 3.2. Sampling Strategy



These data answered the research questions as follows:

(1) All measures came from the RL Survey (Spring 2012) and SPI Survey (Winter 2015).

(2) The parent and outcome measures came from the RL Survey (Spring 2012). Control variables were from either the CIRP TFS (Fall 2011) or the RL Survey (Spring 2012).

(3) The parent and outcome measures came from the SPI Survey (Winter 2015). Control variables were from either the CIRP TFS (Fall 2011) or the RL Survey (Spring 2012).

(4) The parent and outcome measures came from the RL Survey (Spring 2012) and SPI Survey (Winter 2015). Control variables were from either the CIRP TFS (Fall 2011) or the RL Survey (Spring 2012).

As a result of survey attrition, a 30 percent response rate would yield approximately 300 responses. A power analysis estimating a minimum of 10 cases per variable suggested no more than 30 variables in the regression model for the aggregated sample in order to avoid Type I errors. Given the goal of examining the differential impact of students' interactions with their

parents based on gender, race and ethnicity, and class, the researcher restricted the regression models to a maximum of 25 variables.

Final Longitudinal Sample

Of the 1,203 students enrolled in the 2015 Winter Term, 574 completed the follow-up survey (48% response rate). I subsequently imposed the following requirements for inclusion in the final sample: Students needed to indicate a mother (or stepmother) and a father (or stepfather) as the two parents they communicate with the most at both time points. In addition, the sample was restricted to students who identified within the selected racial and ethnic groups, which are described in the section that follows (see Table 3.1). Ultimately, the final sample included 368 students who met these criteria.

Parent 1 was identified as the mother (85.1%), followed by the father (14.9%), stepmother (0%), or stepfather (0%). Parent 2 was typically described as the father (83.7%), followed by mother (14.7%), stepfather (1.4%), or stepmother (0.3%). The gender breakdown of this sample was 67% female and 33% male. Among the sample, most students were domestic (97%) and 15.4% were first-generation college students (i.e., neither of their parents attended college). The overrepresentation of women and underrepresentation of international students in the sample increased somewhat from the first- to the fourth-year samples. The median income of the sample was $100,600. The higher median income in the final sample (relative to the first-year only sample) is a result of attrition among students from lower-income families in the three years between surveys.

Race and Ethnicity determinations

In order to examine effects by race and ethnicity, it was necessary to identify which racial and ethnic groups had sufficient membership within the sample. Disaggregating data by race

and ethnicity was a priority because it takes into consideration the specific educational and social outcomes among subpopulations (Teranishi, Behringer, Grey, & Parker, 2009). Since Asian/Asian American students are most prevalent in my sample, this section focuses on how I categorized this group for analysis. While Asian Americans are one of the fastest-growing and most heterogeneous ethnic groups in higher education (Hune, 2002; Hune & Chan, 1997), they remain one of the least understood (Museus & Chang, 2009), with much of the existing work using aggregated data and homogenizing Asian students' experiences (Hune & Chan, 1997). Thus, there is need for research that focuses on within-group differences (Teranishi, 2007) and how parents influence the emotional development of Asian American students.

Conceptually, it is difficult to determine an a priori grouping of ethnicities or nationalities for aggregating any racial or sub-racial group. This is especially difficult in the context of Asian students, given the heterogeneity of the very large set of sub-Asian nationalities and ethnicities. So, the question of how to best choose such groupings must depend on the context in which the research is being conducted. In this case, I am most interested in the success of students in higher education, and sought to categorize Asian/Asian American students in a way that allows for useful conclusions in the college context. Because of the limited size of my sample, it was necessary to look to other studies to identify sub-groups with similar educational attainment profiles, and then aggregate students of those nationalities into sub-groups of sufficient size within my sample. Using educational attainment data on Americans of Asian origin from the Pew Research Center study on Social and Demographic Trends measures, I looked at the fraction of students from each group attaining bachelor's degrees and advanced degrees. This helped to identify which groups of students had similar success profiles within higher education, and therefore facilitated categorization of Asian American students.

Thus, I aggregated the Asian American groups based on the higher education achievement variability among Asian American sub-populations. South Asian American students (e.g., East Indian and Pakistani students) have earned bachelor's and advanced degrees at similar rates as East Asian American Students (e.g., Chinese, Japanese, and Korean) (National Commission on Asian American and Pacific Islander Research in Education, 2011); thus these groups were combined together to form "East and South Asian." According to this same report, the completion rates for Filipinx/Filipinx American and Vietnamese/Vietnamese American students were lower, so these groups were combined in this study. The final sample for this study over represents White and Asian racial and ethnic groups, under represents Latinx students, and did not include African American students.

Table 3.1. Racial and Ethnic Demographics

Racial and Ethnic Category	Frequency	Percent	Decision
Black/African American	4	0.9%	Excluded
American Indian/Alaskan Native	3	0.6%	Excluded
Other Asian/Asian American	3	0.8%	Excluded
Not reported	13	2.8%	Excluded
Total Excluded	23		
Chinese/Chinese American	114	30.7%	East Asian and South Asian = Chinese/Chinese American, Japanese/Japanese American, Korean/Korean American, and East Indian/Pakistani
Japanese/Japanese American	19	5.1%	
Korean/Korean American	12	3.2%	
East Indian/Pakistani	15	4.0%	
Filipinx, Pilipinx, or Filipinx American	19	5.1%	Other Asian = Filipinx American and Vietnamese/Vietnamese American
Vietnamese/Vietnamese American	35	9.4%	
Chicanx or Mexican American	40	10.8%	Latinx American = Chicanx or Mexican American
Latinx or Latin American	11	3.0%	
White/Caucasian	103	27.8%	White/Caucasian
Total	368		

Variables

The following section details all dependent and independent variables used in the study. For the purposes of this study, and due to the longitudinal design, the variables were grouped as follows and discussed in accordance to the conceptual model: first-year adjustment, fourth-year integration, parent measures, and control variables.

Dependent Measures. As defined in Chapter Two, the dependent variables in this study included measures of first-year adjustment and fourth-year integration. The variables, as obtained from the RL and SPI surveys, comprised of measures that were informed by the extant literature and developed based on existing constructs from HERI. A description of these outcomes follows, and the detailed list of the prospective dependent measures, and their coding schemes, are located in the tables following their descriptions.

Factor analysis and internal reliability testing (Cronbach's alpha) were performed to confirm that these variables held together as composite measures. This process consisted of principal axis factoring with promax rotation (Russell, 2002). These techniques are discussed in more detail in the analytic approaches section of this chapter.

This study examined three dependent outcomes pertaining to first-year adjustment[5] and fourth-year integration in college. As defined in Chapter Two, first-year adjustment involves how well students' transition to both the social, emotional, and academic spheres of the college experience. Fourth-year integration involves students' sense of connection and affinity to one's institution and the extent to which they are making academic decisions. As supported by prior literature, the adjustment and integration measures included: sense of belonging (first and fourth year), emotional well-being (first and fourth year), ease of academic adjustment to college (first year), and academic integration (fourth year). The selection of variables that constitute each construct were either directly replicated or closely derived from factors that have been tested as reliable and valid constructs used in previous studies (Hurtado et al., 2003; Hurtado et al., 2007; Sax, Bryant, & Gilmartin, 2004).

In order to confirm that the adapted adjustment measures held together as composite measures for this study's sample, factor analysis and internal reliability analyses (Cronbach's alpha) were implemented. Specifically, factor analyses utilized principal axis factoring with promax rotation to maximize the strength of each unique factor (Russell, 2002). The threshold for factor validity was set at an eigenvalue greater than 1; further variables constituting a factor were required to load at .35 or greater. Additionally, a minimum Cronbach's alpha of .65 was imposed to ensure factor reliability. Analysis of the proposed factors and their respective factor

[5] I compared the frequency distribution for all variables in the first-year adjustment factors from the RL survey to the SPI survey. The distributions were similar which indicates that the attrition between waves is not the result of a particular group(s) missing from the sample.

loadings, coding, and internal reliability (Cronbach's alpha) as cited in previous papers by Sax and Weintraub (2014, 2016) are described within the text. Each factor is discussed in greater detail below.

Ease of academic adjustment to college. This form of adjustment included items that measure the extent to which students adjust to the academic demands of college (CIRP Technical Report). Similar to the previous measure of adjustment, this factor was also developed by the HERI and used in previous research in which this study extracted a subset of the sample (Sax & Weintraub, 2016). The factor used in this study will include four measures each on a four-point scale ranging from "Very difficult" to "Very easy".

Table 3.2. First-Year Ease of Academic Adjustment to College

First-Year Ease of Academic Adjustment to College (α=.85)	Loading
Ease: Adjust to the academic demands of college	.86
Ease: Develop effective study skills	.80
Ease: Manage your time effectively	.78
Ease: Understand what your professors expect of you academically	.63

Table 3.3. Fourth-Year Academic Persistence

Fourth-Year Academic Persistence (α=.78)	Loading
Ease: Complete academic requirements	.68
Ease: Manage your time effectively	.73
Ease: Accept feedback on your academic work	.63
Ease: Understand what your professors expect of you academically	.70

Sense of belonging. Sense of belonging, as defined in this study, included a number of elements pertaining to students' level of connectedness to their institution. This factor was specifically developed by the HERI and used in previous research including a study using similar data by Sax and Weintraub (2016). The elements of the factor "measure the extent to which students feel a sense of academic and social integration on campus" (CIRP Technical Report). Cumulatively, five variables were included in the sense of belonging factor (e.g., "I feel a sense of belonging to this campus"). Each item was measured on a five-point factor scale, ranging from "Strongly agree" to "Strongly disagree".

Table 3.4. First-Year Sense of Belonging

First-Year Sense of Belonging (α=.73)	Loading
I feel a sense of belonging to this campus	.75
Knowing what I know now I would still choose to enroll at (name of campus)	.76
I feel that this campus welcomes diversity and promotes tolerance	.36
I feel a sense of community at UCLA	.67

Table 3.5. Fourth-Year Sense of Belonging

Fourth-Year Sense of Belonging (α=.84)	Loading
I feel a sense of belonging to this campus	.88
Knowing what I know now I would still choose to enroll at (name of campus)	.74
I feel that this campus welcomes diversity and promotes tolerance	.55
I feel a sense of community at UCLA	.85

Emotional well-being. This measure included six variables and captured the degree to which students felt depressed, isolated from campus, lonely, and overwhelmed by all that they had to do during the first year of college. Notably, these items were reverse-coded, such that a higher score on the emotional well-being scale related to positive emotional health as opposed to maladjustment. In addition, the factor included students' self-rated emotional health compared to students' peers. The emotional health factor was replicated from Sax and Weintraub (2014) and has been found to maintain high internal consistency from previous research by Sax, Bryant, and Gilmartin (2004). The first measure followed a five-point scale ranging from "Lowest 10%" to "Highest 10%". All other items were measured on a three-point scale, ranging from "Not at all" to "Frequently".

An emotional well-being pre-test factor was created using three items from the CIRP Freshman Survey: (a) emotional health self-rating, (b) frequency of depression, and (c) frequency of feeling overwhelmed by all they had to do. The latter two items were reverse-

coded. Because three of the six items comprising the dependent variable were not asked on the 2011 CIRP Freshman Survey, the pre-test approximated students' emotional well-being at entry to college, but did not correspond to the outcome measure exactly. Measures indicating students frequency with which they felt lonely or homesick were separated on the RL survey, different from previous uses of this construct. Despite the three missing items, this "proxy" pre-test may still account for a substantial amount of the variance in the dependent variable (Sax & Weintraub, 2014). Analysis of the proposed factors and their respective factor loadings, coding, and internal reliability (Cronbach's alpha) as cited in previous papers by Sax and Weintraub (2014, 2016) are described within the text.

Table 3.6. Fourth-Year Emotional Well-being

Fourth-Year Emotional Well-being (α=.72)	Loading
Self-Rating: Emotional health	.68
Felt: Depressed	.67
Felt: Isolated	.54
Felt: Lonely	.69
Felt: Overwhelmed by all I had to do	.38

Table 3.7. First-Year Emotional Well-being & Fourth-Year Pretest

First-Year Emotional Well-being & Fourth-Year Pretest (α=.76)	Loading
Self-Rating: Emotional health	.55
Felt: Depressed	.80
Felt: Isolated	.66
Felt: Lonely	.81
Felt: Overwhelmed by all I had to do	.37

Table 3.8. First-Year Emotional Well-being Pretest

First-Year Emotional Well-being Pretest (α=.55)	Loading
Self-Rating: Emotional health	.44
Felt: Depressed	.90
Felt: Overwhelmed by all I had to do	.42

Although the reliability of this pretest was low and below the threshold set for this study, this set of variables was a better predictor of the dependent variable than its individual components.

Control measures and Key independent variables.

The following control measures and key independent measures are discussed in sequential order based on the regression blocking sequence. A detailed description of all items including variable definitions and coding schemes is located in Appendix D.

Pretest (Block 0). As defined above, a pretest measure of the dependent variable (when applicable) was included on its own as the first step in the regression model. The dependent variables from the first-year regressions served as a direct pretest in the fourth-year models, and the only first-year regression that had a pretest was emotional well-being.

Student background characteristics/pre-college traits (Block 1). As described in Pascarella's (1985) and Weidman's (1989) models, the first block of variables examined was student background characteristics and pre-college traits. This block consisted of the following measures: gender, race and ethnicity, status as a first-generation college student, parent income, parent educated outside the United States, parent born outside the United States, and average high school grade (first-year models only).

As explained above, in order to preserve the integrity and unique differences among most racial and ethnic groups and have sufficient numbers to perform statistical analyses, the following racial and ethnic groups were included in this analysis: White/Caucasian, Latinx American (Chicanx or Mexican American), Other Asian (Filipinx American and

Vietnamese/Vietnamese American), and East and South Asian (Chinese/Chinese American, Japanese/Japanese American, Korean/Korean American, and East Indian/Pakistani). East and South Asian students, the largest racial and ethnic group in the sample, served as the reference group and were omitted from the regression model.

To represent students' socioeconomic background, class was defined by using measures of parent's education attainment and income. Status as a first-generation college student was defined as both parents having less than 'some college' as their highest education level (Pascarella et al., 2004). The comparison group was continuing-generation students (Lohfink & Paulsen, 2005), those with one or more parents who had at least "some college." Parents' total income was divided into quartiles (see footnote 1 for description of the variable). Both measures were used in the study to show a comprehensive depiction of students' socioeconomic status. As discussed in Chapter Two, at least half of the population at the data collection site had at least one parent who was an immigrant (Douglass et al., 2007); therefore, immigration status was controlled for in order to prevent conflation with parent income or status as a first-generation college student. After all, there may be variance in parents' educational and career, and socioeconomic status in the U.S. compared to from their country of origin, as a result of remittances or differences in status across residences (Waters & Pineau, 2015). Two questions were added to the fourth-year survey in order to represent students' immigration status. The first was whether students' parents' higher education took place outside of the United States. Then, the second question asked students what year their parental figures came to the United States, unless they were born in the United States. These responses were collapsed into two dichotomous variables (i.e., parent born inside the United States or parent born outside the United States).

Non-college pressures (Block 2). Based on Weidman's (1989) model, college is not an insular environment. The following five measures represent some external commitments that may divert students' attention away from campus: hours/week working for pay, hours/week spent volunteering, hours/week spent using online social networks for personal reasons, hours/week spent visiting home, and hours/week spent contributing to the needs of family.

College experiences and behaviors (Block 3). Related to Weidman's (1989) model, the following three measures encompassed students' academic and social experiences on campus: hours/week spent studying, hours/week spent exercising, and hours/week spent participating in student clubs and organizations.

Interactions with agents of socialization (Block 4). Referring to Pascarella's (1985) model, this block of variables was limited to the following two measures depicting students contact with peers and professors: hours/week spent socializing with friends and students' ease getting to know faculty.

Student-parent interactions (Block 5). The primary variables of interest included measures of student-parent interactions. These measures described the frequency, mode, and perceptions of students' communication behaviors with parents. Frequency of student-parent communication by mode is described as phone, text message, email, etc. Students' perceptions of their parents during their interactions equaled the difference between the sum of positive descriptors (respectful, helpful, interested, and supportive) and the sum of negative descriptors (overly involved, intrusive, uninterested, and overly critical). To understand students perceived level of satisfaction with the amount of communication that they have with their parents, this was a five-point likert-type scale ranging from a lot more than the student likes to a lot less than the

student likes, with a middle option for students to indicate the communication is just the right amount.

Data Analysis

Data analysis for this study was divided into two phases. First, Research Question 1 examined the frequency and nature of students' communication patterns with their mothers and fathers during both the first and fourth year of college using descriptive analyses, including frequencies and cross-tabulations. Gender, race and ethnicity, and class differences in the description and change of the communication patterns were also calculated. The second phase of the analysis employed multiple regression models to identify the association between student-parent interactions and the dependent variables, to discern gender, race and ethnicity, and class differences in how students' communication patterns with their parents may or may not influence college adjustment and integration, and determine whether changes in communication frequency were associated with fourth-year integration.

Data Cleaning

Upon closing of the fourth-year student-parent/guardian interaction follow-up survey, the initial phase of the data analysis employed descriptive analyses on the fourth-year survey instrument, namely frequency distributions (mean, median and standard deviation) and normality (skewness, kurtosis, frequency histograms, normal probability plots), to describe the population of the study and assess the quality and distribution of the variables. Missing values were examined to discern if any patterns exist of non-response bias. After cleaning the data, the students who agreed to have their responses linked to the previous data sources (e.g., 2011 CIRP TFS and 2012 RL survey) were sent to SAIRO for matching. After SAIRO returned the dataset, the above analyses (e.g., frequency distributions and missing value analyses) were repeated in

order to determine response rates and sample size. Subsequently, a bivariate correlational analysis was performed to inspect high inter-correlations between independent variables. Caution was exercised when variables displayed a Pearson's correlation greater than 0.50, as highly correlated variables may threaten the assumption of independence and may lead to multicollinearity in a regression model (Clark & Watson, 1995). I determined to either eliminate variables from the regression model or include them in a factor analysis based on the results of the correlation analysis.

Factor Analyses

In order to determine whether the survey measures can be explained using a smaller number of constructs, exploratory factor analysis was used to reduce the number of dependent and independent variables in the model. First, principal axis factoring using promax rotation to maximize the strength of each unique factor was performed on a sample of greater than 100 cases (Russell, 2002). Next, the default method of extracting factors with eigenvalues greater than 1 was applied and within a factor, variables must load at 0.35 or greater in order to be included. Then, to determine the factor's internal consistency, interrelatedness and reliability, the Cronbach's Alpha were analyzed and deemed acceptable at 0.65 or greater (Cortina, 1993; DeVellis, 2011). Finally, after creating the factors with the total sample, separate confirmatory analysis was performed by gender, race and ethnicity, and class to conform that the factors are also reliable. After identifying the factors, confirmatory factor analysis verified that the measures of the construct were consistent with the hypothesized model and that one underlying construct explained the variables (Sharkness & DeAngelo, 2011). Within this process, factor validity was determined through analysis of the model fit indices using the average standard residual, comparative fit index (CFI), and root mean square error of approximation (RMSEA) as

recommended by Hu and Bentler (1998, 1999) and Russell (2002), who suggest these techniques for large samples (e.g., ideally greater than 200 cases). Specifically, the fit criteria (e.g., CFI) was greater than 0.95 with the RSMEA approximately 0.06 or lower (Hu & Bentler, 1998, 1999; Russell, 2002).

Research Question 1: Descriptive Analyses

First, descriptive statistics (i.e., means and standard deviations) were used to describe the frequency of students' interactions with their parental figures for all seven modes (e.g., phone, text, email) at each time point (e.g., end of first year and middle of fourth year). Then, a paired-sample t-test was calculated to compare differences in communication between parental figures and determine changes in students' communication with their parental figures between the first and fourth years of college (1a). Next, z-tests assessed differences in students' perceived quality of and satisfaction with the type and amount of communication they have with their parental figures during the first and fourth years of college (1b). Following, independent sample t-tests were used to determine whether significant mean differences in frequency of communication by individual modes for two group comparisons (e.g., gender and status as first-generation college student); ANOVAs were performed with Scheffes post-hoc test because it assumes unequal sample sizes for race and ethnicity and income since these measures consist of more than two group comparisons. Also, z-tests determined significance in gender, race and ethnicity, and class distribution examined students' perceived quality and satisfaction with their parental communication (1c). Due to the high number of comparisons involved in the descriptive analyses, a Bonferroni correction was performed by dividing the critical p-value (0.05) by the number of statistical tests in order to determine that the significance level should be set at $p < 0.01$.

Research Questions 2-4: Regression Analysis

To examine the unique effects of student-parent interactions on the adjustment and integration outcome measures, a series of blocked stepwise multiple regression analyses controlling for students' pre-college characteristics, institutional characteristics, and college experiences were conducted. Blocked stepwise regression has substantial benefits in isolating the effects from the behavior or characteristic of interest. First, the blocking technique recognizes the amount variance explained in the outcome after controlling for the blocks of inputs and environments. The unique contribution of each block of variables to the outcome measures was examined and quantified, while concurrently understanding its effect on other independent variables as they entered the regression model. Second, as each variable entered the model, the evolution of the standardized regression coefficients was revealed. For example, Astin and Dey (2001) discussed the Causal Analytical Modeling with Blocked Regression Analysis (CAMBRA) method, defined as the process of examining step-by-step changes in standardized beta coefficients throughout the regression in order to identify the inter-relationships between independent variables and the outcome measures. Further, the variable's direct and indirect effects on the dependent variables can be illuminated somewhat by analyzing beta changes (Astin, 1993a; Astin & Dey, 2001). Multicollinearity in the regression model arising when independent variables are highly correlated with each other is easily detected via this method. Third, suppressor effects were assessed, which occur when a third variable conceals the association between the primary independent variable and the dependent measures (Astin, 1993a). Suppressor effects that involve the parent measures are interpreted and discussed in Chapter 4. As a final point, the blocked stepwise method allows for specific testing of the hypotheses pertaining to Research Questions 2 and 3. The unique contribution of parent

measures during the first and fourth years of college on the adjustment and integration outcomes are identified and examined after controlling for independent variables in temporally-ordered blocks. Specifically, the student-parent interaction measures were placed in the final block of the regression model; this allows for the contribution of all other independent variables to the variance in the outcome measure to be controlled first, in order to reveal the unique effect of student-parent interaction on students' adjustment and integration. This method was expected to underestimate the predictive power of student-parent interactions, and thus, reduce the chance of type-1 error.

To discern the association between change in students' interactions with their parents during the first and fourth years and measures of college adjustment and integration (Research Question 4), a regression model for the aggregate sample was built. Specifically, frequency of interaction with mothers entered into the fourth-year regression models, followed by the fourth-year frequency of interaction with mothers. Measurement of "change" was inherent when both the first-year and four-year measures were controlled. This model was repeated to determine whether the effect of changes in the frequency of interactions with fathers was associated with the key indicators of fourth-year integration. If both frequency measures at each time-point enter and are significant predictors of the outcome, then change in frequency will be inferred and deemed a significant predictor of the indicator of fourth-year integration.

Interaction Terms

To examine how the relationship between student-parent interactions and adjustment and integration outcomes differ by gender, race and ethnicity, and class, new regression models were built using STATA and included the cross-product interaction terms. An interaction between the student background trait and each parent measure were entered individually in separate

regression models using STATA. The advantage of using interaction terms instead of running separate regression models to determine significant differences between student-parent interactions and the outcome measures by students' background characteristics was that the entire sample can remain in the same regression model. STATA produces a visual representation of the graph necessary for interpreting the interaction. In addition, the analyses performed test for differences between the slopes and report whether the overall interaction was significant.

Limitations

The study faced several limitations. First, while designing one's own survey questions ensures greater construct validity in which the measures more accurately reflect the underlying meaning of the intended construct, this process also comes with challenges related to survey and item non-response. National datasets may not accurately portray the intended construct (i.e., student-parent interactions); however, using secondary data could provide a larger sample to analyze which is important when performing multivariate analyses.

Second, the study collected data from a single institution with unique demographics. Generally speaking, women, Asian students, and White students tend to be overrepresented at the institution, and African American students and Latinx students tend to be underrepresented, due to the unique racial and ethnic distribution of the research site. Within the decade, parental involvement has increased at the university and the administration's response aligns with national trends; therefore, making it a reliable place to study this topic. Despite the institution's diversity and focus on parental involvement, the findings are not generalizable.

Third, the survey instruments measured students' communication with their parents at two static points in time (first and fourth year) that do not capture the full range of behaviors

over the full time interval (e.g., second and third years). Only having information about student-parent interactions during the transition and culmination stages of college limits the ability to discern patterns in the communication behaviors over time. For example, if the results reveal that students' maintain a high frequency of communication between these time-points, it may either be that the communication remains constant or that both of these time-points involve milestones when parent involvement is more common. Likewise, the analytic techniques prohibit causality from being concluded. Therefore, interpreting results will have to be done with caution, as there is a chicken-egg issue in which timing of associations is not known for certain.

Fourth, the parent measures were limited in that they only capture students' perceptions of their interactions with their parents. This study lacks a parent voice; surveying both parents and students would provide greater depth as to who initiated contact. As explained in Chapter Two, there was a discrepancy between student and parent perspectives in the use of social media. Students do not report active interaction with parents on social media (e.g., Facebook) (Sax & Weintraub, 2014), yet, parents use these media to keep tabs on their children (Steyer, 2012). Therefore, having knowledge of who initiated contact would begin to explain the purpose and expectations of the communication. Furthermore, the use of qualitative methods would offer a more nuanced description of the nature of communication. Understanding how the various topics discussed between students and their parents is associated with outcomes is especially favorable towards students underrepresented in higher education, as these discussions would reveal how these students engage with familial support functions that are often not considered in traditional models of academic development (Bergerson, 2007; Rendon, 2006).

Fifth, unique to the survey, students described their parental figure(s) using survey items that are inclusive of more diverse family structures (e.g., same-sex parents, step-parents, legal guardians) (Goodwin, 1999; Tierney & Auerbach, 2005; Wolf, 2011). Students identified up to two parental figure(s) by indicating the parent the student communicates with the most (Parent 1) and the second most (Parent 2). The survey also included a question that prompted students to indicate all of the parental figure(s) who have served in their life in order to ascertain the family configurations in this sample. Though this study contributes new knowledge by comparing differences between mothers and fathers, ideally the analysis would have made a more nuanced comparison. A limited number of responses representing diverse family structures on the initial RL survey prevented such an analysis.

Chapter Summary

Despite the aforementioned limitations, this study makes a valuable contribution to the parental engagement literature. First, the longitudinal design allows for examination of changes in interactions between students and their parents when following the same students over time. Next, the larger sample size lends itself to comparing the differences in students' relationships with mothers and fathers, as opposed to examining parents in the aggregate. In addition, performing blocked, stepwise regression enables the examination of the relationship among independent variables. The use of interaction terms may reveal unique differences based on students' background characteristics. This chapter provided a detailed discussion of the conceptual model, study sample, variables examined, research design and limitations of the present study. In summary, the analytic techniques used in this study address the differential effects of college students' interactions with their parental figures and their influence on first-year adjustment and fourth-year integration outcomes.

CHAPTER FOUR

RESULTS

This chapter presents analyses of students' interactions with their parents during the first and fourth years of college and the effects of those interactions on first-year adjustment and fourth-year integration. Additionally, this chapter discusses whether differential effects exist across gender, race and ethnicity, and class within these relationships. In the first section, I report the results of students' frequency, perceived quality, and satisfaction with the amount of communication that they have with their parents, and whether the communication changes during college. An examination of how the frequency and nature of parental communication varies by gender, race and ethnicity, and class immediately follows the results for the entire population. In the second section, I explore the association between student-parent interactions and first-year adjustment (i.e., emotional well-being, ease of academic adjustment, and sense of belonging) and how this varies by gender, race and ethnicity, and class. I summarize the findings of how student-parent interactions were associated with key indicators of fourth-year integration (e.g., emotional well-being, academic integration, and sense of belonging) in the third section, followed by an account of whether those associations vary by gender, race and ethnicity, and class. The final section then considers whether changes in the frequency of students' interactions with their parents between the first and fourth years of college are associated with these indicators of fourth-year integration.

Frequency and Mode of Student-Parent Interactions

Table 4.1 reports the forms of communication students used to interact with their mothers and fathers while the university was in session, and how often they used each form of communication during the first and fourth years of college. The table also reveals whether there

are discrepancies between the modes used to communicate with mothers and those used with fathers[6], and how these patterns changed between the first and the fourth year of college.

As the results illustrate, phone was the preferred method of communication with either parent during the first year, followed by text message. In the fourth year, text messaging with mothers rose to the top as the most frequent form of communication; however, phone remained the most common mode of communication with fathers. The least frequent modes of communication included video chat, online social network, and postal mail. These findings illustrate an interest in easily accessible methods (e.g., phone, text messaging, and email) that typically do not require advanced planning.

For each mode of communication, Table 4.1 also compares the frequency by parent category. Results show that, across each mode and during each time-point, students interacted with their mothers more often than with their fathers. For example, students spoke with their mothers multiple times per week by phone in the first year, whereas phone communication with fathers was limited to several conversations per month. While students' phone communication with mothers declined slightly by the fourth year, it still occurred more frequently than their phone communication with fathers (whether in the first or fourth years). With respect to text messaging, students in their first year communicated with their mothers two to three times a month, however text messages were exchanged with their fathers only once a month. Interestingly, in the fourth year, text messaging between first-year students and their mothers occurred nearly weekly, but remained as occurring approximately once a month with fathers.

Changes in Student-Parent-Interactions from the First to the Fourth Year

Turning to the issue of how communication changed over time for each mode, frequency

[6] Throughout the chapter, 'mothers' refers to the combination of mothers/stepmothers and 'fathers' refers the combination of fathers/stepfathers.

of communication diminished between the first and the fourth year except for text messaging with either parent, which increased from the first to the fourth year. Overall, the findings revealed an important shift toward more asynchronous forms of communication (e.g., text messaging) from modes that require synchronous engagement (e.g., phone). This theme will be explored further in Chapter Five.

Table 4.1. Frequency and Mode of Students' Interactions with their Parents During the First and Fourth Years of College (n=368)

	First Year				Fourth Year				Time point with significantly higher communication with[b]	
	Communication with				Communication with					
	Mother[a]		Father[a]		Mother[a]		Father[a]			
Mode	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mother	Father
Phone	**5.38**	(1.54)	4.23	(1.85)	**4.80**	(1.65)	3.75	(1.67)	First year	First year
Text	**4.30**	(2.63)	3.25	(2.22)	**4.83**	(2.26)	3.55	(1.97)	Fourth year	Fourth year
Email/IM	**2.97**	(2.04)	2.54	(1.86)	2.55	(1.69)	2.39	(1.59)	First year	
Face to Face	2.81	(1.59)	2.80	(1.57)	**2.78**	(1.67)	2.63	(1.56)		
Video Chat	1.86	(1.40)	1.80	(1.36)	**1.63**	(1.20)	1.50	(1.10)	First year	First year
Online Social Network	**1.64**	(1.46)	1.38	(1.18)	**1.81**	(1.44)	1.49	(1.24)		
Postal Mail	**1.40**	(0.80)	1.23	(0.66)	**1.32**	(0.64)	1.19	(0.65)		

[a]Paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated in bold ($p<.01$).

[b]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Scale: (1) = Never, (2) = Less than once a month, (3) = Once a month, (4) = 2-3 times a month, (5) = Once a week, (6) = More than once a week, but not every day, (7) = Once a day, (8) = 2-3 times a day, (9) = 4 or more times a day

Gender Differences in the Frequency of Interactions

Table 4.2 illustrates the differences in how men and women communicate with their mothers and fathers while attending college. Phone was both men's and women's preferred mode of interaction when speaking with either parent in the first year of college. During the fourth year, men continued to favor the phone when speaking with their mothers and fathers; women also communicated most often with their fathers by phone in the fourth year. When communicating with their mothers in the fourth year, women opted for text messaging, followed by the phone. It is important to emphasize that while women's rate of text messaging with their mothers spiked in the fourth year, their phone communication with mothers remained more frequent than the amount at which they talked to their fathers and the frequency with which men talked to either parent. Given these results, women's uniquely frequent phone communication with their mothers provided evidence of a very close relationship that was not matched by any other parent-student gender combination.

For the most part, women communicated more frequently than did men with both parents during both the first and fourth years of college. Across all modes, both men and women talked consistently more frequently with their mothers than with their fathers. In terms of frequency of communication, men's communication with either parent and across all modes diminished from the first to the fourth year, with the exception of text messaging with mothers increasing in the fourth year. Women's frequency of communication decreased too, with the exception of text messaging, which increased in prevalence in the fourth year. In summary, the emergent pattern of women communicating more frequently than men, and communication favoring mothers for both genders, is consistent with previous research using these data (Sax & Weintraub, 2014) and using data obtained from different sources (Sarigiani et al., 2013; Wolf, Sax, & Harper, 2009).

Table 4.2. Differences in Frequency and Mode of Students' Interactions with their Parents During the First and Fourth Years of College, by Gender (Male n=120; Female n=24)

	First year								Fourth year								Time point with significantly higher communication with[c]			
	Communication with								Communication with											
	Mother[b]				Father[b]				Mother[b]				Father[b]				Mother		Father	
	Men[a]		Women[a]		Men[a]		Women[a]		Men[a]		Women[a]		Men[a]		Women[a]					
Mode	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Men	Women	Men	Women
Phone	5.02*	(1.33)	**5.56***	(1.61)	4.22	(1.57)	4.24	(1.97)	4.43*	(1.44)	**4.98***	(1.72)	3.40	(1.47)	**3.91**	(1.74)	First year	First year	First year	First year
Text	3.60*	(2.38)	**4.64***	(2.69)	2.98	(2.08)	3.38	(2.27)	4.15*	(2.08)	**5.15***	(2.27)	3.28	(1.81)	3.67	(2.03)	Fourth year	Fourth year		
Email/ IM	2.87	(1.86)	3.02*	(2.13)	2.75	(1.88)	2.44	(1.84)	2.50	(1.57)	2.57	(1.74)	2.30	(1.38)	2.43	(1.68)		First year	First year	
Face to Face	2.73	(1.58)	2.85	(1.59)	2.86	(1.60)	2.78	(1.56)	2.50	(1.43)	2.91*	(1.76)	2.38	(1.35)	2.75	(1.64)			First year	
Video Chat	1.71	(1.32)	1.94	(1.44)	1.66	(1.20)	1.87	(1.43)	1.53	(1.19)	1.69*	(1.21)	1.43	(1.05)	1.53	(1.13)		First year		First year
Online Social Network	1.53	(1.28)	1.70*	(1.55)	1.38	(1.06)	1.38	(1.23)	1.63	(1.20)	1.90*	(1.53)	1.51	(1.24)	1.47	(1.23)				
Postal Mail	1.32	(0.65)	1.44*	(0.86)	1.26	(0.67)	1.21	(0.66)	1.26	(0.70)	1.34*	(0.61)	1.18	(0.65)	1.19	(0.65)				

[a]Independent samples t-tests compare men with women; the higher scoring group is indicated in bold ($p<.01$).

[b]For men and women, paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$).

[c]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college for both men and women. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Racial and Ethnic Group Differences in the Frequency of Interactions

As explained in Chapter Three, the following four racial and ethnic groups were included: White/Caucasian, Latinx American (which includes Chicanx or Mexican American), East and South Asian, and Filipinx and Vietnamese. Both Asian groups include students who immigrated to the U.S. from Asia and native-born students whose family emigrated from Asia. The Asian/Asian American groups were formed based on the higher education achievement variability existing among Asian American sub-populations.

Table 4.3 shows racial and ethnic group differences in frequency and mode of students' interactions with their mothers and fathers during the first year of college. During the first year, White/Caucasian students communicated more frequently with their mothers as compared to both Asian groups in this study. The higher prevalence of communication is mainly the result of White/Caucasian students communicating more often by text message and email/Instant Messenger as compared to both Asian groups. The only mode where White/Caucasian students had less frequent communication than another racial and ethnic group was face-to-face; Latinx American students had more frequent face-to-face interaction. Further, Filipinx and Vietnamese students had more frequent face-to-face communication with their mothers than did East and South Asian students, however East and South Asian students had greater occurrence of interaction using email/Instant Messenger. These results resonate with findings of several other studies. For example, Ovink and Kalogrides (2015) found that Latinx students preferred living at home during college compared to the White students in their sample. Furthermore, Latinx American tends to be very close with their parents, especially daughters with their mothers (Sy & Romero, 2008). Likewise, Filipinx and Vietnamese students also show similar patterns of closeness with their parents (Fuligni, 2007). These connections to the literature will be discussed

in Chapter Five.

For communication with fathers in the first year, White/Caucasian students had significantly more common communication overall than both Asian groups, largely due to the higher frequency of text messaging among White students. Latinx American students had notably less frequent email/Instant Messenger contact than East and South Asian students and White students, while they had more commonly occurring face-to-face interactions than did East and South Asian students. Filipinx and Vietnamese students also had greater frequency of face-to-face interaction with their fathers as compared to East and South Asian students. This is not surprising, as there is a larger gap in the Latinx American community's technology use between parents and their children as compared to other racial and ethnic groups (Lopez, Gonzalez-Barrera, & Patten, 2013). Furthermore, the opportunity for face-to-face interaction with parents among Latinx American students is high because they are more likely to live locally or with family (Ovik & Kalogrides, 2015; Tornatzky, Lee, Mejía, & Tarant, 2003). These points will be further explored in Chapter 5.

Table 4.3. Differences in Frequency and Mode of Students' Interactions with their Parents During the First Year of College, by Race and Ethnicity

	Communication with Mother								Communication with Father							
	East & South Asian[a] n=160		Filipinx, Vietnamese[a] n=54		White/ Caucasian[a] n=103		Latinx American[a] n=51		East & South Asian[a] n=160		Filipinx, Vietnamese[a] n=54		White/ Caucasian[a] n=103		Latinx American[a] n=51	
Mode	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Phone	5.28	(1.61)	5.15	(1.45)	5.38	(1.49)	5.96	(1.43)	4.19	(1.96)	3.83	(1.75)	4.39	(1.64)	4.49	(1.96)
Text	3.63^{W}	(2.76)	3.70^{W}	(2.65)	5.33^{S,F}	(1.87)	4.92	(2.76)	2.77^{W}	(2.08)	3.09	(2.35)	4.19^{S}	(2.06)	3.06	(2.28)
Email/ IM	3.05^{L}	(2.13)	2.15^{W}	(1.78)	3.86^{F,L}	(1.87)	1.82^{S,W}	(1.44)	2.78^{L}	(1.91)	2.39	(1.93)	2.86^{L}	(1.88)	1.33^{S,W}	(0.91)
Face to Face	2.47^{F,L}	(1.55)	3.37^{S}	(1.65)	2.70	(1.42)	3.53^{S}	(1.62)	2.52^{L}	(1.55)	3.27	(1.59)	2.78	(1.50)	3.37^{S}	(1.59)
Video Chat	1.92	(1.46)	1.44	(0.88)	2.07	(1.54)	1.69	(1.32)	1.89	(1.48)	1.43	(0.98)	1.91	(1.35)	1.71	(1.30)
Online Social Network	1.42	(1.14)	1.46	(1.11)	2.02	(1.80)	1.73	(1.79)	1.35	(1.22)	1.40	(1.22)	1.44	(1.18)	1.35	(1.04)
Postal Mail	1.24^{W}	(0.61)	1.21^{W}	(0.99)	1.76^{S,F}	(0.91)	1.35	(0.63)	1.14	(0.41)	1.22	(1.00)	1.41	(0.81)	1.16	(0.42)

[a]Analysis of Variance conducted to compare race differences; significant differences are indicated with superscripts ($p<.01$).
Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day
Key: "S"= East & South Asian, "F"= Filipinx, Vietnamese, "W"=White/Caucasian, "L"=Latinx American

Table 4.4 describes racial and ethnic group differences in frequency and mode of students' interactions with their mothers and fathers during the fourth year of college. During the fourth year, overall frequency of communication decreases; however, the racial and ethnic pattern is similar to the first year. As shown, the gap in talking on the phone with mothers between Latinx American students and both Asian groups widens due to a larger decline in the Asian groups' frequency of phone usage. White/Caucasian students continue to communicate more via written digital communication (e.g., text messaging, email/Instant messaging) as compared to most other racial and ethnic groups. This pattern where White/Caucasian students communicate more frequently via technology, Latinx American students communicate more via phone, and Asian students communicate less across all modes will be explored in more depth in Chapter 5.

Table 4.4. Differences in Frequency and Mode of Students' Interactions with their Parents During the Fourth Year of College, by Race and Ethnicity

	Communication with															
	Mother								Father							
	East & South Asian[a] n=160		Filipinx, Vietnamese[a] n=54		White/ Caucasian[a] n=103		Latinx American[a] n=51		East & South Asian[a] n=160		Filipinx, Vietnamese[a] n=54		White/ Caucasian[a] n=103		Latinx American[a] n=51	
Mode	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Phone	4.66	(1.74)	4.41	(1.45)	4.89	(1.50)	5.45	(1.70)	3.74	(1.67)	3.28	(1.55)	3.93	(1.54)	3.88	(2.01)
Text	4.61	(2.35)	4.19[W]	(2.37)	5.46[S,F]	(1.70)	4.90	(2.59)	3.55	(2.02)	2.85[W]	(1.84)	4.13	(1.63)	3.10[W]	(2.26)
Email/ IM	2.56[L]	(1.74)	2.20[W]	(1.53)	3.12[F,L]	(1.68)	1.75[S,W]	(1.25)	2.58	(1.64)	1.89[L]	(1.28)	2.72[L]	(1.61)	1.69[S,W]	(1.33)
Face to Face	2.65	(1.68)	2.89	(1.28)	2.62	(1.67)	3.37	(1.89)	2.49	(1.55)	2.51	(1.59)	2.51	(1.25)	3.22	(1.72)
Video Chat	1.79	(1.41)	1.33	(0.87)	1.74	(1.15)	1.25	(0.69)	1.65	(1.26)	1.24	(0.75)	1.52	(1.03)	1.25	(0.96)
Online Social Network	1.77	(1.42)	1.76	(1.30)	2.02	(1.57)	1.59	(1.31)	1.33	(1.00)	1.50	(1.19)	1.70	(1.52)	1.53	(1.30)
Postal Mail	1.25[W]	(0.62)	1.13[W]	(0.44)	1.53[S,F]	(0.73)	1.27	(0.60)	1.21	(0.68)	1.06	(0.30)	1.18	(0.53)	1.27	(0.94)

[a]Analysis of Variance conducted to compare race differences; significant differences are indicated with superscripts ($p<.01$).

Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day

Key: "S"= East & South Asian, "F"= Filipinx, Vietnamese, "W"=White/Caucasian, "L"=Latinx American

Table 4.5 adds a layer of additional detail to the previous two tables by revealing differences in communication between mothers and fathers among racial and ethnic groups, and also indicating whether there are significant changes in communication between the first and the fourth year. As illustrated, any significant differences in communicating with parents during college within racial and ethnic groups trend toward speaking to mothers more frequently than with fathers. In addition, across all racial and ethnic groups, phone communication with both parents was greater in the first year. Increases in communication frequency were evident only with East and South Asian students. For example, East and South Asian students showed higher frequency of communication in the fourth year, particularly with text messaging with both parents. Chapter Five will elaborate on possible reasons that distinguish East and South Asian students' higher levels of communication in the fourth year from the other racial and ethnic groups in this study.

Table 4.5. Differences in Frequency and Mode of Students' Interactions with their Parents During the First and Fourth Years of College, by Race and Ethnicity

Race Group	First Year Communication with Mother[a] Mean (SD)	First Year Communication with Father[a] Mean (SD)	Fourth Year Communication with Mother[a] Mean (SD)	Fourth Year Communication with Father[a] Mean (SD)	Time point with significantly higher communication with[b] Mother	Time point with significantly higher communication with[b] Father
East & South Asian *(n=160)*						
Phone	**5.28** (1.61)	4.19 (1.96)	**4.66** (1.74)	3.74 (1.67)	First year	First year
Text	**3.63** (2.76)	2.77 (2.08)	**4.61** (2.35)	3.55 (2.02)	Fourth year	Fourth year
Email/IM	3.05 (2.13)	2.78 (1.91)	2.56 (1.74)	2.58 (1.64)	First year	
Face to Face	2.47 (1.55)	2.52 (1.55)	**2.65** (1.68)	2.49 (1.55)	Fourth year	
Video Chat	1.92 (1.46)	1.89 (1.48)	**1.79** (1.41)	1.65 (1.26)		First year
Online Social Network	1.42 (1.14)	1.35 (1.22)	**1.77** (1.42)	1.33 (1.00)	Fourth year	
Postal Mail	**1.24** (0.61)	1.14 (0.41)	1.25 (0.62)	1.21 (0.68)		
All Modes	**18.91** (5.46)	16.68 (6.16)	**19.28** (5.94)	16.54 (5.13)		
Filipinx, Vietnamese *(n=54)*						
Phone	**5.15** (1.45)	3.83 (1.75)	**4.41** (1.45)	3.28 (1.55)	First year	First year
Text	3.70 (2.65)	3.09 (2.35)	**4.19** (2.37)	2.85 (1.84)		
Email/IM	2.15 (1.78)	2.39 (1.93)	2.20 (1.53)	1.89 (1.28)		First year
Face to Face	3.37 (1.65)	3.23 (1.54)	**2.89** (1.28)	2.74 (1.25)	First year	First year
Video Chat	1.44 (0.88)	1.43 (0.98)	**1.39** (0.98)	1.24 (0.75)		
Online Social Network	1.46 (1.11)	1.41 (1.22)	1.76 (1.30)	1.50 (1.19)	Fourth year	
Postal Mail	1.21 (0.99)	1.21 (0.98)	1.13 (0.44)	1.06 (0.30)		
All Modes	**18.36** (5.45)	16.15 (6.04)	**17.91** (4.83)	14.56 (4.50)		First year
White/Caucasian *(n=103)*						
Phone	**5.38** (1.49)	4.39 (1.64)	**4.89** (1.50)	3.93 (1.54)	First year	First year
Text	**5.33** (1.87)	4.19 (2.06)	**5.46** (1.70)	4.13 (1.63)		
Email/IM	**3.86** (1.87)	2.86 (1.88)	**3.12** (1.68)	2.72 (1.61)	First year	
Face to Face	2.70 (1.42)	2.75 (1.50)	2.62 (1.67)	2.51 (1.59)		
Video Chat	2.07 (1.54)	1.91 (1.35)	**1.74** (1.15)	1.52 (1.03)	First year	First year
Online Social Network	**2.02** (1.80)	1.44 (1.18)	**2.02** (1.57)	1.70 (1.52)		
Postal Mail	**1.76** (0.91)	1.41 (0.81)	**1.53** (0.73)	1.18 (0.53)	First year	First year
All Modes	**23.13** (4.76)	18.94 (5.37)	**21.38** (5.27)	17.65 (5.30)	First year	First year
Latinx American *(n=51)*						
Phone	**5.96** (1.43)	4.49 (1.96)	**5.45** (1.70)	3.88 (2.01)	First year	First year
Text	**4.92** (2.76)	3.06 (2.28)	**4.90** (2.59)	3.10 (2.26)		
Email/IM	**1.82** (1.44)	1.33 (0.91)	1.75 (1.25)	1.69 (1.33)		
Face to Face	3.53 (1.62)	3.37 (1.59)	3.37 (1.89)	3.22 (1.72)		
Video Chat	1.69 (1.32)	1.71 (1.30)	1.25 (0.69)	1.25 (0.96)	First year	First year
Online Social Network	1.73 (1.79)	1.35 (1.04)	1.59 (1.31)	1.53 (1.30)		
Postal Mail	**1.35** (0.63)	1.16 (0.42)	1.27 (0.60)	1.27 (0.94)		

[a]For race groups, paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated in bold ($p<.01$).

[b]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college by race group. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day

Parental Income Differences in the Frequency of Interactions

To represent students' socioeconomic background, class was defined in Chapter Three as parents' total income, which was measured on a fourteen-point scale ranging from 'less than $10,000' to '$250,000 or more', and then divided into quartiles. Table 4.6 illustrates income group differences in the frequency and mode of students' interactions with their parents during the first year of college. In the first year, lower-income groups communicated less frequently with each parent than did high-income students. This pattern is seen most strongly in use of text messaging and email/Instant Messenger with both parents. The only mode where lower-income groups communicated with greater frequency was face-to-face communication with mothers. Unsurprisingly, higher-income groups make use of technology more frequently than lower-income groups, while lower income groups may have a greater expectation for students to return home and contribute to the needs of family, leading to more face-to-face communication.

Table 4.6. Differences in Frequency and Mode of Students' Interactions with their Parents During the First Year of College, by Income

	Communication with Mother				Communication with Father			
	(1)[a] $49,999 and below	**(2)[a] $50K-$99.9**	**(3)[a] $100K-$149.9**	**(4)[a] $150K+**	**(1)[a] $49,999 and below**	**(2)[a] $50K-$99.9**	**(3)[a] $100K-$149.9**	**(4)[a] $150K+**
	n=82	*n=85*	*n=84*	*n=85*	*n=82*	*n=85*	*n=84*	*n=85*
Mode	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Phone	5.26 (1.82)	5.44 (1.46)	5.37 (1.50)	5.33 (1.42)	4.26 (2.25)	4.16 (1.73)	4.24 (1.81)	4.20 (1.62)
Text	3.48[4] (2.92)	4.50 (2.53)	4.39 (2.54)	4.78[1] (2.31)	2.61 (2.32)	3.36 (2.26)	3.40 (2.11)	3.51 (2.11)
Email/IM	2.12[3,4] (1.89)	2.79 (2.11)	3.18[1] (1.95)	3.60[1] (1.89)	1.78[3,4] (1.66)	2.28[3] (1.82)	3.07[1,2] (1.92)	3.00[1] (1.81)
Face to Face	3.43[3,4] (1.76)	2.91 (1.66)	2.45[1] (1.26)	2.41[1] (1.46)	3.21 (1.68)	2.88 (1.69)	2.55 (1.37)	2.56 (1.43)
Video Chat	1.55 (1.17)	1.78 (1.39)	1.89 (1.37)	1.94 (1.43)	1.68 (1.51)	1.62 (1.25)	1.87 (1.32)	1.93 (1.32)
Online Social Network	1.57 (1.50)	1.69 (1.64)	1.73 (1.56)	1.64 (1.33)	1.54 (1.57)	1.27 (0.99)	1.42 (1.15)	1.39 (1.02)
Postal Mail	1.28 (0.89)	1.39 (0.79)	1.42 (0.62)	1.45 (0.77)	1.15 (0.45)	1.06[4] (0.29)	1.27 (0.63)	1.36[2] (0.77)

[a]Analysis of Variance conducted to compare income differences; significant differences are indicated with superscripts ($p<.01$).

Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day

Table 4.7 describes income group differences in frequency and mode of students' interactions with their mothers and fathers during the fourth year of college. As shown, the primary difference seen in the fourth year compared to the first year is a reduction in frequency of communication across all income groups. The patterns observed in the first year held true in the fourth year. In other words, lower-income groups communicated less frequently across all modes with both parents, with the exception of face-to-face communication.

Table 4.7. Differences in Frequency and Mode of Students' Interactions with their Parents During the Fourth Year of College, by Income

	Communication with Mother				Communication with Father			
	(1)[a] $49,999 and below	(2)[a] $50K-$99.9	(3)[a] $100K-$149.9	(4)[a] $150K+	(1)[a] $49,999 and below	(2)[a] $50K-$99.9	(3)[a] $100K-$149.9	(4)[a] $150K+
	n=82	*n=85*	*n=84*	*n=85*	*n=82*	*n=85*	*n=84*	*n=85*
Mode	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Phone	4.95 (1.64)	4.71 (1.53)	4.64 (1.70)	4.74 (1.67)	3.76 (1.80)	3.75 (1.61)	3.62 (1.46)	3.65 (1.65)
Text Messaging	4.07 (2.65)	5.18 (2.00)	4.73 (2.24)	5.13 (1.96)	2.80[2,4] (2.11)	3.71[1] (1.86)	3.64 (1.94)	3.85[1] (1.78)
Email/IM	1.77[3] (1.35)	2.28[4] (1.74)	2.81[1] (1.62)	3.11[1] (1.70)	1.66[3,4] (1.38)	2.00[3] (1.42)	2.65[1,2] (1.56)	3.08[1,2] (1.50)
Face to Face	3.11 (1.73)	2.94 (1.79)	2.33 (1.21)	2.48 (1.62)	2.93 (1.69)	2.82 (1.64)	2.25 (1.16)	2.41 (1.58)
Video Chat	1.50 (1.11)	1.58 (1.19)	1.57 (1.11)	1.76 (1.33)	1.34 (0.89)	1.42 (1.03)	1.48 (1.05)	1.61 (1.24)
Online Social Network	1.83 (1.62)	1.84 (1.47)	1.61 (1.10)	1.99 (1.52)	1.55 (1.43)	1.34 (0.99)	1.50 (1.11)	1.47 (1.15)
Postal Mail	1.13 (0.41)	1.29 (0.75)	1.35 (0.55)	1.46 (0.78)	1.24 (0.81)	1.14 (0.54)	1.12 (0.39)	1.18 (0.54)

[a]Analysis of Variance conducted to compare income differences; significant differences are indicated with superscripts ($p<.01$).

Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day

Table 4.8 expands upon the previous two tables by revealing differences in communication between mothers and fathers among income quartiles, and also indicating whether there are significant changes in communication between the first and the fourth year. When examining differences between parents and across time points with respect to income, Table 4.8 reveals no deviation from the overall pattern for all students. That is, the significant differences between mothers and fathers within each income quartile always trends to communication being more frequent with mothers. Furthermore, communication is greater in the first year than the fourth year, with the exception of text messaging for the $50K-$99.9 quartile is greater in the fourth year.

Table 4.8. Differences in Frequency and Mode of Students' Interactions with their Parents During the First and Fourth Years of College, by Income

	First Year				Fourth Year				
	Communication with				Communication with				Time point with significantly higher communication with[b]
	Mother[a]		Father[a]		Mother[a]		Father[a]		
Income Quartile	**Mean**	***(SD)***	**Mean**	***(SD)***	**Mean**	***(SD)***	**Mean**	***(SD)***	**Mother** / **Father**
(1) $49,999 and below *(n=82)*									
Phone	**5.26**	(1.82)	4.26	(2.25)	**4.95**	(1.64)	3.76	(1.80)	First year
Text	**3.48**	(2.92)	2.61	(2.32)	**4.07**	(2.65)	2.80	(2.11)	
Email/IM	2.12	(1.89)	1.78	(1.66)	1.77	(1.35)	1.66	(1.38)	
Face to Face	3.43	(1.76)	3.21	(1.68)	3.11	(1.73)	2.93	(1.69)	
Video Chat	1.55	(1.17)	1.68	(1.51)	1.50	(1.11)	1.34	(0.89)	First year
Online Social Network	1.57	(1.50)	1.54	(1.57)	1.83	(1.62)	1.55	(1.43)	
Postal Mail	1.28	(0.89)	1.15	(0.45)	1.13	(0.41)	1.24	(0.81)	First year
(2) $50K-$99.9 *(n=85)*									
Phone	**5.44**	(1.46)	4.16	(1.73)	**4.71**	(1.53)	3.75	(1.61)	First year
Text	**4.50**	(2.53)	3.36	(2.26)	**5.18**	(2.00)	3.71	(1.86)	Fourth year
Email/IM	2.79	(2.11)	2.28	(1.82)	2.28	(1.74)	2.00	(1.42)	
Face to Face	2.91	(1.66)	2.89	(1.69)	2.94	(1.79)	2.82	(1.64)	
Video Chat	1.78	(1.39)	1.62	(1.25)	**1.58**	(1.19)	1.42	(1.03)	
Online Social Network	**1.69**	(1.64)	1.27	(0.99)	**1.84**	(1.47)	1.34	(0.99)	
Postal Mail	**1.39**	(0.79)	1.06	(0.29)	**1.29**	(0.75)	1.14	(0.54)	
(3) $100K-$149.9 *(n=84)*									
Phone	**5.37**	(1.50)	4.24	(1.81)	**4.63**	(1.70)	3.62	(1.46)	First year / First year
Text	**4.39**	(2.54)	3.40	(2.11)	**4.73**	(2.24)	3.64	(1.94)	
Email/IM	3.18	(1.95)	3.07	(1.92)	2.81	(1.62)	2.65	(1.56)	
Face to Face	2.45	(1.26)	2.55	(1.37)	2.33	(1.21)	2.25	(1.16)	
Video Chat	1.89	(1.37)	1.87	(1.32)	1.57	(1.11)	1.48	(1.05)	First year
Online Social Network	1.73	(1.56)	1.42	(1.15)	1.61	(1.10)	1.50	(1.11)	
Postal Mail	1.42	(0.62)	1.27	(0.63)	**1.35**	(0.55)	1.12	(0.39)	
(4) $150K+ *(n=85)*									
Phone	**5.33**	(1.42)	4.20	(1.62)	**4.74**	(1.67)	3.65	(1.65)	First year / First year
Text	**4.78**	(2.32)	3.51	(2.11)	**5.13**	(1.96)	3.85	(1.78)	
Email/IM	3.60	(1.89)	3.00	(1.81)	3.11	(1.70)	3.08	(1.50)	
Face to Face	2.41	(1.46)	2.56	(1.43)	2.48	(1.62)	2.41	(1.58)	
Video Chat	1.94	(1.43)	1.93	(1.32)	1.76	(1.33)	1.61	(1.24)	First year
Online Social Network	1.64	(1.33)	1.39	(1.02)	**1.99**	(1.52)	1.47	(1.15)	
Postal Mail	1.45	(0.77)	1.36	(0.77)	**1.46**	(0.78)	1.18	(0.54)	

[a]For income quartiles, paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated in bold ($p<.01$).

[b]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college by income quartiles. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Scale: 1= Never, 2= Less than once a month, 3= Once a month, 4= 2-3 times a month, 5= Once a week, 6= More than once a week, but not every day, 7= Once a day, 8= 2-3 times a day, 9= 4 or more times a day

Parental Education Differences in the Frequency of Interactions

A second measure of class captured social capital. As discussed in Chapter Three, this study adopted HERI's definition of educational attainment, with first-generation status indicating that both parents had less than 'some college' as their highest education level. The comparison group is continuing-generation students (CGS) (Lohfink & Paulsen, 2005) (i.e., those with one or more parents who had at least 'some college').

Table 4.9 presents the differences in how students interact with their mothers and fathers during college based on their status as first-generation college students. For first-generation college students, phone is the most commonly utilized method of communication for all students with either parent in the first year and in the fourth year. For continuing-generation students, text messaging approaches or exceeds frequency of phone communication. Predominantly, continuing-generation students communicated more frequently with both their mothers and fathers than did first-generation students during the first and fourth years of college, with the exception of face-to-face communication during the first year of college, where first-generation students communicated more often. This finding supports research showing first-generation college students choosing colleges near home in order to frequently visit or live at home (Lohfink & Paulsen, 2005).

Table 4.9. Differences in Frequency and Mode of Students' Interactions with their Parents During the First and Fourth Years of College, by Status as a First Generation College Student

	First Year Communication with								Fourth Year Communication with								Time point with significantly higher communication with[c]			
	Mother[b]				Father[b]				Mother[b]				Father[b]				Mother		Father	
	Cont-Gen[a] n=292		First-Gen[a] n=53		Cont-Gen[a] n=292		First-Gen[a] n=53		Cont-Gen[a] n=292		First-Gen[a] n=53		Cont-Gen[a] n=292		First-Gen[a] n=53					
Mode	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Cont-Gen	First-Gen	Cont-Gen	First-Gen
Phone	5.35*	(1.50)	5.43*	(1.93)	4.24	(1.75)	4.34	(2.33)	4.75*	(1.65)	4.91*	(1.78)	3.82	(1.60)	3.60	(2.05)	First year		First year	First year
Text	4.46*	(2.57)	3.60	(2.89)	3.34	(2.15)	2.79	(2.51)	**5.07***	(2.13)	3.70*	(2.69)	**3.83**	(1.89)	2.28	(1.93)	Fourth year		Fourth year	
Email/ IM	**3.24***	(2.04)	1.66	(1.69)	**2.75**	(1.85)	1.53	(1.62)	**2.80**	(1.71)	1.30	(0.87)	**2.58**	(1.55)	1.55	(1.56)	First year			
Face to Face	2.71	(1.50)	**3.45**	(1.96)	**2.70**	(1.51)	3.34	(1.80)	2.74*	(1.69)	3.13	(1.71)	2.62	(1.57)	2.94	(1.62)				
Video Chat	1.92*	(1.44)	1.64	(1.29)	1.79	(1.29)	1.83	(1.79)	1.69	(1.19)	1.62	(1.36)	1.52	(1.10)	1.49	(1.19)	First year		First year	
Online Social Network	1.66*	(1.44)	1.38	(1.43)	1.34	(1.01)	1.49	(1.71)	1.85*	(1.47)	1.57	(1.29)	1.47	(1.18)	1.47	(1.42)				
Postal Mail	1.44	(0.76)	1.23	(1.01)	1.23	(0.59)	1.13	(0.44)	**1.36***	(0.68)	1.13	(0.44)	1.19	(0.64)	1.21	(0.79)				

[a]Independent samples t-tests compare first-generation college student status; the higher scoring group is indicated in bold ($p<.01$).

[b]For first-generation college students and continuing-generation college students, paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$) .

[c]Within parental figure, paired sample t-tests compare communication in the first and fourth years of college for both first-generation college students and continuing-generation college students. The higher scoring group is indicated ($p<.01$). Blank cells indicate no significance.

Scale: (1) = Never, (2) = Less than once a month, (3) = Once a month, (4) = 2-3 times a month, (5) = Once a week, (6) = More than once a week, but not every day, (7) = Once a day, (8) = 2-3 times a day, (9) = 4 or more times a day

Perceived Quality of Interaction with Parents

Table 4.10[7] describes students' perception of interactions with their parents during the first and fourth years of college. Overall, students in both years were far more likely to choose positive descriptions of their parents' communication than negative ones. Negative descriptors remained low, but increased slightly from the first to the fourth year. During both the first and fourth year, students identified mothers as being more supportive and interested than their fathers. Conversely, students identified their fathers as more respectful than mothers during both years. At the same time, mothers were more likely to be perceived as overly involved in both years relative to fathers, and fathers were more likely to be perceived as overly critical and uninterested compared to mothers. This stands in sharp contrast to the negative image of parents cast by the media.

[7] A discrepancy on the Residence Life survey permitted students to mark more than three parental descriptors; therefore, the descriptive analysis was restricted to students who marked only three options. The error was corrected in the follow-up survey that students completed four years later.

Table 4.10. Perception of Interactions with Parents During the First and Fourth Years of College (n=254)

Parental Descriptor	First Year Communication with Mother[a] (%)	First Year Communication with Father[a] (%)	Fourth year Communication with Mother[a] (%)	Fourth year Communication with Father[a] (%)	Time point with significantly perception of interaction with[b] Mother	Time point with significantly perception of interaction with[b] Father
Supportive	**76.8**	71.7	**74.0**	68.9		
Interested	**66.1**	59.4	**65.4**	59.4		
Helpful	54.7	47.6	50.0	48.8		
Respectful	40.9	**48.8**	35.4	**43.7**		
Overly Involved	**10.2**	4.3	9.1	5.5		Fourth year
Overly Critical	7.1	**8.7**	8.3	**10.6**		Fourth year
Intrusive	3.9	3.1	6.3	5.9	Fourth year	Fourth year
Uninterested	1.2	**3.9**	3.9	**4.7**	Fourth year	Fourth year

[a] Z-test compare difference in perception of interactions between mothers/stepmothers and fathers/stepfathers; the higher proportion is indicated in bold ($p < .01$).

[b] Z-test compare change in perception of parental interactions from the first to the fourth year of college; the higher proportion is indicated ($p < .01$). Blank cells indicate no significance.

Gender Differences in the Perceived Quality of Interactions

Table 4.11 shows the average of students who perceive their mother and father using the listed descriptors. As shown in Table 4.11, there were no significant differences comparing men and women's perceptions of their interactions, their interactions with their mothers and fathers, or comparing communication differences from the first to the fourth year of college. Once again, these patterns align with previous research using these data conducted by Sax and Weintraub (2014).

Table 4.11. Perception of Interactions with Parents During the First and Fourth Years of College, by Gender

Perceived Quality of Interaction with	First year: Men[a] n=99 Mean	(SD)	First year: Women[a] n=255 Mean	(SD)	Fourth year: Men[a] n=99 Mean	(SD)	Fourth year: Women[a] n=255 Mean	(SD)	Time point with significantly higher perception of interaction with[c]: Men	Women
Mother[b]	2.25	(1.31)	2.10	(1.31)	2.04	(1.27)	1.93	(1.35)		
Father[b]	2.19	(1.22)	2.00	(1.40)	1.90	(1.39)	1.97	(1.30)		

[a]Independent samples t-tests compare men with women; the higher scoring group is indicated in bold ($p<.01$).

[b]For men and women, paired sample t-tests compare perceived differences in parental quality between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$).

[c]Within parental figure, paired sample t-tests compare change in perceived differences in parental quality during the first and fourth years of college for both men and women; the higher scoring group is indicated ($p<.01$). Blank cells indicate no significance.

Racial and Ethnic Group Differences in the Perceived Quality of Interactions

Table 4.12 adds a layer to the previous table by describing racial and ethnic differences in how students' perceive the quality of interaction that they have with their parents during the first and the fourth year. While first year communication quality showed no significant differences between racial and ethnic groups, in the fourth year White/Caucasian students had higher perceived quality of maternal interactions than Filipinx and Vietnamese.

Table 4.12. Perception of Interactions with Parents During the First and Fourth Years of College, by Race and Ethnicity

Perceived quality of interaction with	First year								Fourth year								Time point with significantly higher perception of interaction with[c]			
	East & South Asian[a]		Filipinx, Vietnamese[a]		White/ Caucasian[a]		Latinx American[a]		East & South Asian[a]		Filipinx, Vietnamese[a]		White/ Caucasian[a]		Latinx American[a]					
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)				
	n=118		*n=40*		*n=63*		*n=33*		*n=118*		*n=40*		*n=63*		*n=33*		S	F	W	L
Mother[b]	2.21	(1.33)	1.73	(1.63)	2.37	(1.00)	2.12	(1.27)	1.94	(1.36)	1.50[W]	(1.52)	2.44[F]	(0.93)	1.76	(1.32)				
Father[b]	2.01	(1.40)	1.95	(1.32)	2.17	(1.29)	2.27	(1.21)	1.81	(1.46)	1.53[W]	(1.47)	2.40[F]	(0.87)	2.03	(1.24)				

[a]Analysis of Variance conducted to compare race differences; significant differences are indicated with superscripts ($p<.01$).

[b]By race groups, paired sample t-tests compare perceived quality of interactions between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$).

[c]Within parental figure, paired sample t-tests compare perceived quality of interaction during the first and fourth years of college by race groups. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Key: "S"= East & South Asian, "F"= Filipinx, Vietnamese, "W"=White/Caucasian, "L"=Latinx American

Parental Income Differences in the Perceived Quality of Interactions

Table 4.13 illustrates income differences in students' perception of interactions with parents during college. As shown, the higher-income quartiles tended to have higher perceptions of interaction quality for both parents and at both time points as compared to the lower-income quartiles, though only the fourth year responses showed a statistically significant difference between income groups. For both parents, the lower income groups showed reduced perceived quality in the fourth year relative to the first year, while higher income groups showed perceived quality as improving over time. Again, the pattern was statistically significant in only one case, the second income quartile for mothers, but the pattern is consistent across both parents and all income groups. No significant differences within income quartiles emerged when comparing communication between parents. It is possible that these patterns with respect to income are due to the positive quality terms better representing the view high socioeconomic status students have of parental communication, rather than being a measure of objective communication quality. This potential limitation will be further discussed in Chapter 5.

Table 4.13. Differences in Perception of Interactions with Parents During the First and Fourth Years of College, by income

Perceived quality of interaction with	First year (1)[a] $49,999 and below	(2)[a] $50K-$99.9	(3)[a] $100K-$149.9	(4)[a] $150K+	Fourth year (1)[a] $49,999 and below	(2)[a] $50K-$99.9	(3)[a] $100K-$149.9	(4)[a] $150K+	Time point with significantly higher perception of interaction with[c]
	Mean (SD) *n=48*	Mean (SD) *n=59*	Mean (SD) *n=66*	Mean (SD) *n=58*	Mean *(SD)* *n=48*	Mean (SD) *n=59*	Mean *(SD)* *n=66*	Mean (SD) *n=58*	1 2 3 4
Mother[b]	2.08 (1.29)	2.05 (1.39)	2.39 (1.11)	2.00 (1.47)	1.83 (1.15)	1.42[3] (1.52)	2.38[2] (1.11)	2.12 (1.31)	First year
Father[b]	1.92 (1.51)	1.73 (1.66)	2.39 (0.97)	2.17 (1.17)	1.63 (1.47)	1.47[3] (1.56)	2.42[2] (0.91)	2.03 (1.30)	

aAnalysis of Variance conducted to compare income differences; significant differences are indicated with superscripts ($p<.01$).

[b]By income groups, paired sample t-tests compare perceived quality of interactions between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$).

[c]Within parental figure, paired sample t-tests compare perceived quality of interaction during the first and fourth years of college by income groups. The higher scoring timepoint is indicated ($p<.01$). Blank cells indicate no significance.

Parental Education Differences in the Perceived Quality of Interactions

Table 4.14 reveals significant differences in college students' perceptions of interactions with their parents based on their status as first- or continuing-generation students. There were no significant differences when comparing each group's interactions with their mothers and fathers. During the fourth year, but not the first year, continuing-generation college students described their interactions with both parents to be more positive than that of first-generation college students. With respect to changes in communication from the first to the fourth year, first-generation college students maintain a significantly more positive view of their interactions with mothers and fathers in the first year. As discussed previously, these results must be taken with some degree of caution, as the adjectives listed may not be exhaustive of how first-generation college students' portray their parental communication. This point will be elaborated on in Chapter Five.

Table 4.14. Perception of Interactions with Parents During the First and Fourth Years of College, by Status as a First Generation College Student

	First year				Fourth year				Time point with significantly higher perception of interaction with[c]	
	Continuing-Generation[a]		First-Generation [a]		Continuing-Generation[a]		First-Generation [a]			
Perceived quality of interaction with	n=205		n=30		n=205		n=30			
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Cont-Gen	First-Gen
Mother[b]	2.13	(1.35)	2.37	(1.13)	**2.07**	(1.29)	1.43	(1.36)		First year
Father[b]	2.06	(1.34)	2.27	(1.34)	2.03	(1.31)	1.40	(1.48)		First year

[a]Independent samples t-tests compare first-generation college student status; the higher scoring group is indicated in bold (p<.01).

[b]For first-generation college students and non first-generation college students, paired sample t-tests compare perceived differences in parental quality between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (p<.01).

[C]Within parentel figure, paired sample t-tests compare change in perceived quality of parental quality during the first and fourth years of college for both first-generation college students and non first-generation college students. The higher scoring group is indicated (p<.01). Blank cells indicate no significance.
Key: "No"= Continuing-generation college students, "Yes"= First-generation college students

Satisfaction with the Amount of Parental Interaction

Table 4.15 displays students' satisfaction with the amount of communication that they had with their mothers and fathers during the first and fourth years of college. Before explaining the findings, it is important to reiterate that satisfaction was measured categorically. For instance, a "3" indicated satisfaction with the amount of communication. Higher scores (e.g., "4" or "5") meant the student desired more communication with their parent, and lower scores (e.g., "1" or "2") meant the student desired less communication with their parent. The table shows both the percentage of students indicating each response, as well as the mean score of all students for each parent and time point.

Almost three-quarters of students reported feeling satisfied with the amount of communication that they had with their mothers during the first year of college. Of the remaining quarter of students who indicated dissatisfaction, a greater proportion of these students *desired more* communication with their mothers than *desired less* communication. During the fourth year, the proportion of students satisfied with their maternal communication decreased, as the proportion of students who desired more interaction with their mothers increased.

In contrast, only half of students in their first year indicated that the interaction they had with their fathers was *just the right amount*; meanwhile, a majority of the remaining half described their interactions with their fathers as *less* than desired. A similar pattern emerged for paternal communication in the fourth year, with the caveat that the percentages in each category were slightly smaller. Overall, more students were satisfied with the amount of communication that they had with their mothers as compared to their fathers. Furthermore, students' desire for additional communication with their fathers increased over time.

With respect to mean levels of communication satisfaction, results did not reveal

significant changes over time with respect to either parent.[8] However, there were significant differences when comparing mothers to fathers, with students showing a greater desire for more communication with fathers. Overall, contrary to the media narrative, students are generally quite satisfied with the amount of communication that they have with their parents. If anything, students desire greater interaction, especially with their fathers. This finding will be elaborated in Chapter Five.

[8] In fact, none of the mean changes in satisfaction were significant over time (with one exception, as discussed in the text). Thus, the accompanying tables do not include information on whether the differences in means were significant.

Table 4.15. Satisfaction with the amount of parental communication during the first and fourth years of college (n=368)

	First Year Communication with		Fourth Year Communication with		Significant changes over time between the means[b]	
	Mother[a]	**Father[a]**	**Mother[a]**	**Father[a]**		
Amount of Communication	(%)	(%)	(%)	(%)	Mother	Father
A LOT MORE than I would like	**1.08**	0.8	0.8	0.8	First year	
A LITTLE MORE than I would like	**4.92**	3.8	**5.7**	2.7		
Just the right amount	**71.58**	51.9	**64.9**	49.2		
A LITTLE LESS than I would like	18.31	**35.8**	25.0	**47.0**	First year	Fourth year
A LOT LESS than I would like	4.07	**7.7**	**3.5**	0.3	First year	First year

[a]Z-test compare difference in communication satisfaction between mothers/stepmothers and fathers/stepfathers; the higher proportion is indicated in bold ($p<.01$).

[b]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college; the higher scoring group is indicated ($p<.01$). Blank cells indicate no significance.

Gender Differences in Satisfaction with Parental Interaction

Table 4.16 extends the previous table by comparing men's and women's satisfaction with the amount of communication that they have with their mothers and fathers during the first and fourth year of college. According to Table 4.16, no gender differences emerged in students' satisfaction with the amount of communication that they had with either parent and there was no significant change between time points. Altogether, men and women indicated similar levels of satisfaction with the amount of communication that they have with their mothers and fathers during the first and fourth years of college.

Table 4.16. Satisfaction with the amount of parental communication during the first and fourth years of college, by gender

	First Year				Fourth Year				Significant changes over time between the means[c]	
	Men[a] n=120		Women[a] n=249		Men[a] n=120		Women[a] n=251			
Amount of Communication with	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	M	W
Mother[b]	3.27	(0.63)	3.16	(0.64)	3.25	(0.63)	3.25	(0.66)		
Father[b]	3.44	(0.74)	3.46	(0.72)	3.38	(0.52)	3.46	(0.63)		

[a]Independent samples t-tests compare men with women; the higher scoring group is indicated in bold (p<.01).

[b]For men and women, paired sample t-tests compare perceived differences in parental quality between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated in bold (p<.01).

[c]Within parental figure, paired sample t-tests compare change in perceived differences in parental quality during the first and fourth years of college for both men and women; the higher scoring group is indicated (p<.01). Blank cells indicate no significance.

Racial and Ethnic Group Differences in Satisfaction with Parental Interaction

Table 4.17 visualizes racial and ethnic differences in students' satisfaction with their parental communication during the first and fourth years of college. As shown, examining racial and ethnic group differences in parental communication satisfaction revealed no deviation from the overall pattern for all students. All racial and ethnic groups showed more communication desired with fathers in both the first and the fourth year than mothers with the exception of Latinx in the fourth year, and satisfaction with parental communication showed no change over time.

Table 4.17. Satisfaction with the amount of parental communication during the first and fourth years of college, by race and ethnicity

Satisfaction with the amount of communication with	First year				Fourth year				Significant changes over time between the means[c]
	East & South Asian[a]	Filipinx, Vietnamese[a]	White/ Caucasian[a]	Latinx American[a]	East & South Asian[a]	Filipinx, Vietnamese[a]	White/ Caucasian[a]	Latinx American[a]	
	n=158	*n=57*	*n=103*	*n=51*	*n=158*	*n=57*	*n=103*	*n=51*	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	S F W L
Mother[b]	3.26 (0.72)	3.16 (0.72)	3.14 (0.47)	3.14 (0.57)	3.23 (0.67)	3.25 (0.69)	3.21 (0.56)	3.31 (0.81)	
Father[b]	3.35 (0.76)	3.53* (0.75)	3.48* (0.65)	3.65* (0.72)	3.37* (0.63)	3.35 (0.67)	3.49* (0.50)	3.57 (0.10)	

[a]Analysis of Variance conducted to compare race differences; the higher scoring group is indicated in bold (p<.01).

[b]By race groups, paired sample t-tests compare communication between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) (p<.01).

[c]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college by race groups. The higher scoring timepoint is indicated (p<.01). Blank cells indicate no significance.

Key: "S"= East & South Asian, "F"= Filipinx, Vietnamese, "W"=White/Caucasian, "L"=Latinx American

Parental Income Differences in Satisfaction with Parental Interaction

Table 4.18 describes parental income differences in students' satisfaction with the amount of communication that they have with their mothers and fathers during college. According to Table 4.18, all income groups would prefer more communication than they currently have with both parents. This preference is strongest for the lowest income group; it is apparent for both parents, but statistically significant only for communication with mothers at both time points. Differences in satisfaction between fathers and mothers did not differ by income group, as all groups held to the overall pattern. However, significant change over time was observed in one instance: For students in the second-lowest income quartile, the desire for more communication with mothers was greater in the fourth year.

Table 4.18. Satisfaction with the amount of parental communication during the first and fourth years of college, by income

Satisfaction with the amount of communication with	First year: $49,999 and below (1)[a] n=82		First year: $50K-$99.9 (2)[a] n=88		First year: $100K-$149.9 (3)[a] n=84		First year: $150K+ (4)[a] n=85		Fourth year: $49,999 and below (1)[a] n=82		Fourth year: $50K-$99.9 (2)[a] n=88		Fourth year: $100K-$149.9 (3)[a] n=84		Fourth year: $150K+ (4)[a] n=85		Significant changes over time between the means[c]			
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	(1)	(2)	(3)	(4)
Mother[b]	3.34	(0.72)	3.07	(0.78)	3.17	(0.60)	3.21	(0.49)	3.43	(0.67)	3.24	(0.64)	3.21	(0.57)	3.14	(0.53)				
Father[b]	3.57*	(0.72)	3.40*	(0.69)	3.48*	(0.46)	3.35	(0.68)	3.46	(0.78)	3.41	(0.76)	3.44*	(0.65)	3.36*	(0.65)				

aAnalysis of Variance conducted to compare income differences; the higher scoring group is indicated in bold (p<.01).

[b]By income quartiles, paired sample t-tests compare communication between mothers and fathers; the higher scoring group is indicated with an asterisk (*) (p<.01). Blank

[c]Within parental figure, paired sample t-tests compare communication during the first and fourth years of college by income quartiles. The higher scoring timepoint is indicated (p<.01).

Table 4.19 illustrates differences between first-generation college students' and continuing-generation college students' parental communication satisfaction by status as a first-generation college student. As shown in Table 4.19, no differences emerged in first- or continuing-generation students' satisfaction with the amount of communication that they had between time points. There were, however, significant differences when comparing first-generation college student status. Specifically, first-generation college students desire greater communication with their fathers during the first year of college, in comparison to their continuing-generation peers who were more satisfied with the amount of communication that they had with their fathers. Moreover, when comparing satisfaction with parental communication within each status group, both first- and continuing-generation students indicated less satisfaction with the amount of interaction that they had with their fathers compared to their mothers in both the first and fourth years

of college.

Table 4.19. Satisfaction with the amount of parental communication during the first and fourth years of college, by first-generation status

Satisfaction with the amount of communication with	First Year				Fourth Year				Significant changes over time between the means[c]	
	Cont-Gen[a]		First-Gen[a]		Cont-Gen[a]		First-Gen[a]			
	n=295		n=53		n=295		n=53			
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	Continuing-Generation	First-Generation
Mother[b]	3.17	(0.62)	3.28	(0.77)	3.23	(0.63)	3.26	(0.74)		
Father[b]	3.39*	(0.69)	**3.68***	(0.83)	3.41*	(0.59)	3.45	(0.67)		

[a]Independent samples t-tests compare first-generation college student status; the higher scoring group is indicated in bold ($p<.01$) .

[b]For first-generation college students and continuing-generation college students, paired sample t-tests compare differences in communication satisfaction between mothers/stepmothers and fathers/stepfathers; the higher scoring group is indicated with an asterisk (*) ($p<.01$).

[c]Within parentel figure, paired sample t-tests compare change in perceived communication satisfaction during the first and fourth years of college for both first-generation college students and continuing-generation college students. The higher scoring group is indicated ($p<.01$). Blank cells indicate no significance.

Summary of Descriptive Findings

The descriptive findings pertaining to the frequency and nature of student-parent interaction revealed a number of interesting trends. In particular, it is evident that students communicate more frequently with mothers than fathers. Moreover, with few exceptions, communication was greater during the first year than the fourth year of college. Students communicated weekly with parents using the phone during the first year; however, in the fourth year, students gravitated toward text messaging more than talking on the phone.

Significant differences emerged in students' reliance over text messaging for women, non-first-generation college students, and White/Caucasian students compared to all other racial and ethnic groups. Furthermore, students were satisfied with the frequency of communication that they had with their parental figures, and if anything, desired more communication, especially first-generation college students when it comes to their interactions with fathers.

Taken together, these results suggest that students are comfortable with the frequency of communication that they maintain with their parental figures. If anything, students desire even more frequent communication than they already have with their parental figures. Most importantly, these data attest to the fact that not only do students communicate differently based on their gender identity, race and ethnicity, parental income, and parental education, but students also have different communication patterns with their mothers and fathers.

First-Year Adjustment

Research Question Two examined the association between student-parent interactions and key indicators of first-year adjustment, and assessed how gender, race and ethnicity, and class moderated the association. In this section, a description of the key findings at these initial steps of the regression model are described first and then an examination of how the student-

parent interaction measures are associated with the outcome measures is presented. Each model consisted of the following temporally-sequenced steps depending on whether there was a pretest measure of the dependent variable: (0) pretest (when applicable), (1) student background characteristics and pre-college traits, (2) non-college pressures, (3) college experiences and behaviors, (4) interactions with agents of socialization, and (5) student-parent interactions.

In order to compare differences between interactions with mothers and fathers, the following six parent measures were placed into the model in the last block: frequency of interaction, perceived quality of interaction, and satisfaction with the amount of communication, each for mothers and fathers. However, because of multicollinearity among some parent variables, I discuss the predictive power of the parent variables at the step before they enter the model. The section concludes with a description of the role of gender, race and ethnicity, and class in relation to student-parent interactions for each outcome measure.

Table 4.20 displays the final regression results for each outcome of the three outcome measures used to define first-year adjustment. Included in the table are variables that entered any of the three regressions; blank cells indicate that a variable did not enter that particular model. This format enables us to visualize the relevant variables across all models and to provide an overview of how student-parent variables are associated with the three dimensions of first-year adjustment. Step-by-step beta coefficients for each independent variable (both entering and not entering the regression models) are located in the appendix. (See Appendix E-1 for emotional well-being, Appendix E-2 for academic adjustment, and Appendix E-3 for sense of belonging.)

The total proportion of variance accounted for by variables in each model ranged from 13 percent (for sense of belonging) to 29 percent (for emotional well-being). Interestingly,

interactions with agents of socialization accounted for a majority of the explained variance in all outcomes save for the emotional well-being model. In this case, the emotional well-being pretest, which was the only pretest included in any of the first-year models, accounted for the greatest proportion of variance in its associated outcome measure, followed by the interactions with agents of socialization. Of particular note, although interactions with faculty and peers accounted for the greatest proportion of the variance in all measures of students' first-year adjustment, parent variables still explained a modest but statistically significant proportion of variance: emotional well-being (2 percent), academic adjustment (3 percent), and sense of belonging (5 percent).

Although the primary focus of this study is the effect of the student-parent interaction variables on measures of first-year adjustment, it is important to first review the role played by variables in prior blocks. Among background characteristics, those who identified as first-generation college students tended to report lower emotional well-being, and women indicated greater ease at adjusting to the academic demands of college (block 2). However, once socializing with friends was entered into the regression in block 5, both measures lost significance in their respective models, suggesting the effects of these variables are mediated by time spent socializing. With respect to forces that divert students' attention away from campus (block 3), the number of hours per week spent using online social networking sites for personal reasons negatively predicted first-year students' academic adjustment. No measures of college behaviors and experiences entered any of the models (block 4).

Among interactions with agents of socialization (block 5), spending time socializing with friends was a moderately strong positive predictor across all three outcomes. In addition, ease getting to know faculty entered as a positive predictor for academic adjustment and sense of

belonging, though it lost significance by the final step. Taken together, these results speak to the important role that peers and professors play in students' first-year adjustment. Above all, the impact of socializing with friends on first-year adjustment underscores the value that contemporaries have on students' institutional affinity, wellness, and academic development.

Effects of Parent Variables

It is important to acknowledge that there is multicollinearity among the parent variables. Consequently, there is some instability in the beta coefficients throughout each step as the correlated variables compete with each other in the changing model. Therefore, I was careful to look at the predictive power of parent variables before and after counterpart variables entered the model. For example, perceived quality of maternal interaction did not enter the model for any of the three outcome measures, despite the fact that the beta coefficient was significant and positive prior to the entrance of the first parent variable in all cases. This is because this variable was highly correlated with perceived quality of interaction with fathers, which does enter the model.

Of the six parental communication measures included in block 5, at least two, and as many as three, were significant in any given model. In fact, perceived quality of interaction with fathers is positively associated with all three dependent variables, and perceived quality of interaction with mothers maintained a strong relationship with all three outcome variables until paternal quality entered the model. Furthermore, these findings suggest that the more secure that students feel towards their interactions with their parents, the more likely it is that they will acclimate to the college environment. The one exception to this is that higher frequency of interaction with fathers was a negative predictor of emotional well-being and sense of belonging. In addition to the general trends, desiring more communication with mothers negatively predicted academic adjustment among first-year students. In other words, either greater levels of

interaction with mothers or desiring more interaction with mothers was associated with lower security (e.g., emotional well-being and sense of belonging) or levels of academic adjustment. Of course, the direction of effect cannot be known from these data: It is possible that students who feel less secure or are having a difficult time adjusting are communicating more often with mothers and/or desire even greater interaction with mothers.

Comparing the regression coefficients across each outcome uncovers interesting interrelationships among parent variables. Across all three outcomes, the quality of interaction measures revealed a positive association with first-year adjustment, yet frequency of parental interaction and dissatisfaction with parental interaction showed negative relationships with the outcomes. Consider emotional well-being as an example. In this case, more frequent communication with fathers correlated with lower emotional well-being. It is not known whether students with a lower sense of their emotional well-being are subsequently communicating more frequently with fathers, or if frequency of communication results in lower emotional well-being. Though it is difficult to discern the relationship among the parent measures, broadly speaking a pattern emerges corresponding to the value of quantity versus quality of interaction in relationships with mothers and fathers during the first year of college. As noted earlier, perceived quality of interaction is associated with positive indicators of adjustment, whereas dissatisfaction with communication amount or frequency of communication showed a negative association. Figuring out the most appropriate forms and levels of communication with one's parents aligns closely with separation and attachment theory and notions of self-authorship. Thus, these findings accentuate a role for parents in first-year students' adjustment to college, bearing in mind the vast majority of the variance in these outcomes is explained by interactions with peers and faculty.

Table 4.20. Regression Predicting First-Year Adjustment (n=368)

	Emotional Well-being		Academic Adjustment		Sense of Belonging	
	r	**Final Beta**	**r**	**Final Beta**	**r**	**Final Beta**
Block 0: Pretest						
Emotional well-being	0.46***	0.44***		-		-
	(R^2=0.21)					
Block 2: Student background characteristics/pre-college traits						
First-generation status	-0.10*	-0.09				
White/Caucasian			0.14**	0.07		
	(R^2=0.22)		(R^2=0.02)			
Block 3: Non-college pressures						
Hours/week: Using online social networking sites for personal reasons			-0.23***	-0.25***		
			(R^2=0.07)			
Block 4: College experiences and behaviors						
No variables entered						
Block 5: Interactions with agents of socialization						
Socialize with friends	0.24	0.23***	0.09	0.15**	0.25	0.25***
Ease: Get to know faculty			0.28***	0.26***	0.11	0.08
	(R^2=0.27)		(R^2=0.16)		(R^2=0.08)	
Block 6: Student-Parent Interactions						
Quality of interaction with father	0.19**	0.12**	0.17**	0.13**	0.17**	0.19***
Frequency of interaction with mother (all modes)					0.07	0.12*
Frequency of interaction with father (all modes)	-0.05	-0.11*			-0.08	-0.17**
Desiring more communication with mother			-0.09	-0.11*		
Final R^2	(R^2=0.29)		(R^2=0.19)		(R^2=0.13)	

Coefficients shown only for variables that entered the model. Significance indicated by *p<0.05, **p<0.01, ***p<0.001.

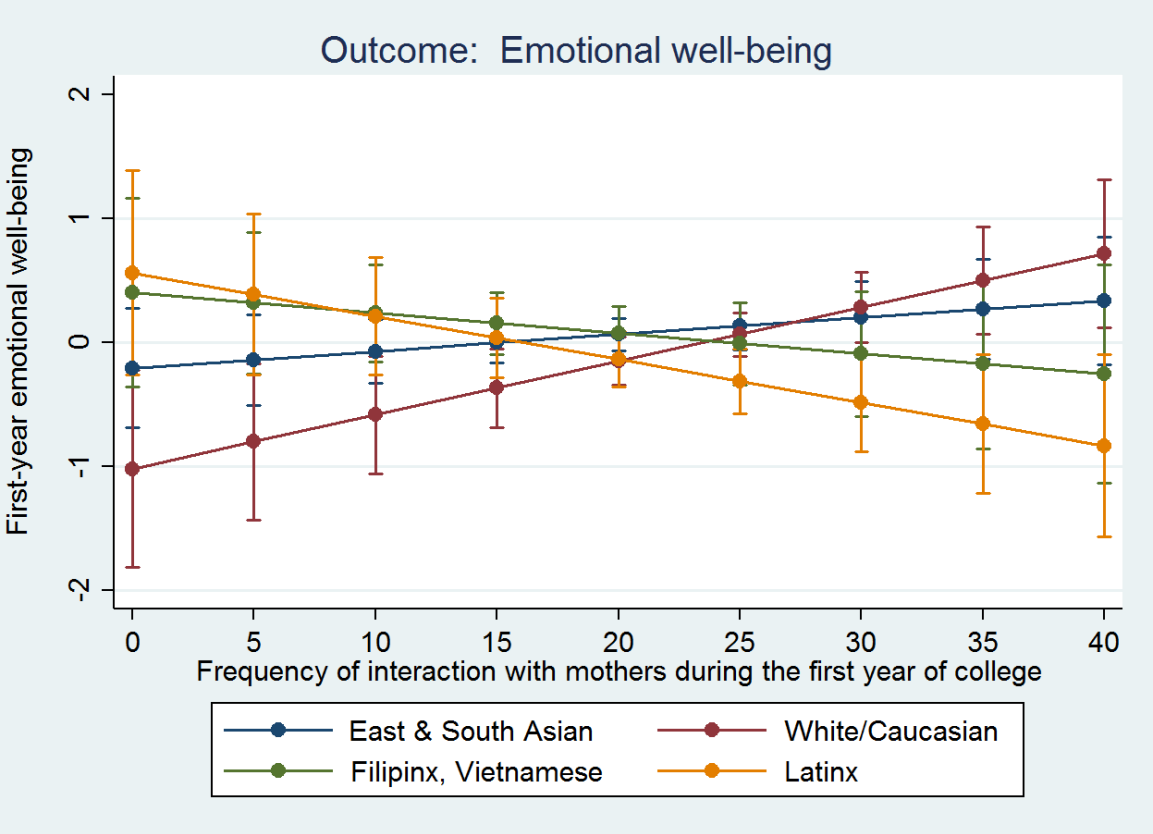
A dash (-) indicates no pretest was entered into the model.

Variations by gender, race and ethnicity, and class

Although there were no significant main effects of gender, race and ethnicity, and class in any of the models, I elected to examine cross-product interaction terms to confirm that student-parent interactions do not depend upon students' gender, race and ethnicity, or class. After placing the interaction terms into the regression model separately (i.e., not in competition with one another), the results revealed five significant interactions across the three outcome measures that compose first-year adjustment. As a reminder for when interpreting the interaction effects, the regression equations controlled for the main effects of gender, race and ethnicity, parental income, and first-generation college student status.

Figure 4.1 illustrates a significant interaction between race and ethnicity and frequency of interaction with mothers on first-year emotional well-being ($F(3,310)=3.78$, $p=0.01$). Whereas the emotional well-being of students identifying as White/Caucasian and East and South Asian increases with more frequent maternal communication, the reverse is true for Filipinx, Vietnamese students and Latinx American students. As Filipinx, Vietnamese and Latinx American students report higher emotional well-being, the frequency of communication that they have with their mothers declines. In Chapter 5, I elaborate on how these findings align with research that shows differential ways that family support promotes first-year students' emotional well-being (Arbona & Power, 2003; Sax, Bryant, & Gilmartin, 2004; Sax & Weintraub, 2014).

Figure 4.1. Interaction between Race and Ethnicity and Frequency of Interaction with Mothers with First-Year Emotional Well-being



Three significant interactions were detected for the outcome sense of belonging. The first two reveal an interaction between first-generation status and students' level of satisfaction with the amount of communication they have with their parents. Figure 4.2 depicts this interaction as it relates to fathers ($F(2,333)=5.52$, $p=0.0044$) and Figure 4.3 shows the interaction as it relates to mothers ($F(2,333)=3.78$, $p=0.0238$). Together, these figures show that, for first-generation college students, desiring less communication with parents is associated with lower sense of belonging on campus. Said otherwise, first-generation college students who desire less communication with their fathers and mothers tend to report a level of attachment to the university that is much lower than that of continuing-generation college students. These findings reinforce the value of first-generation college students maintaining ongoing ties with their fathers and mothers during their adjustment to college.

Figure 4.2. Interaction between Status as a First-Generation College Student and Satisfaction with the Amount of Communication with Fathers with First-Year Sense of Belonging

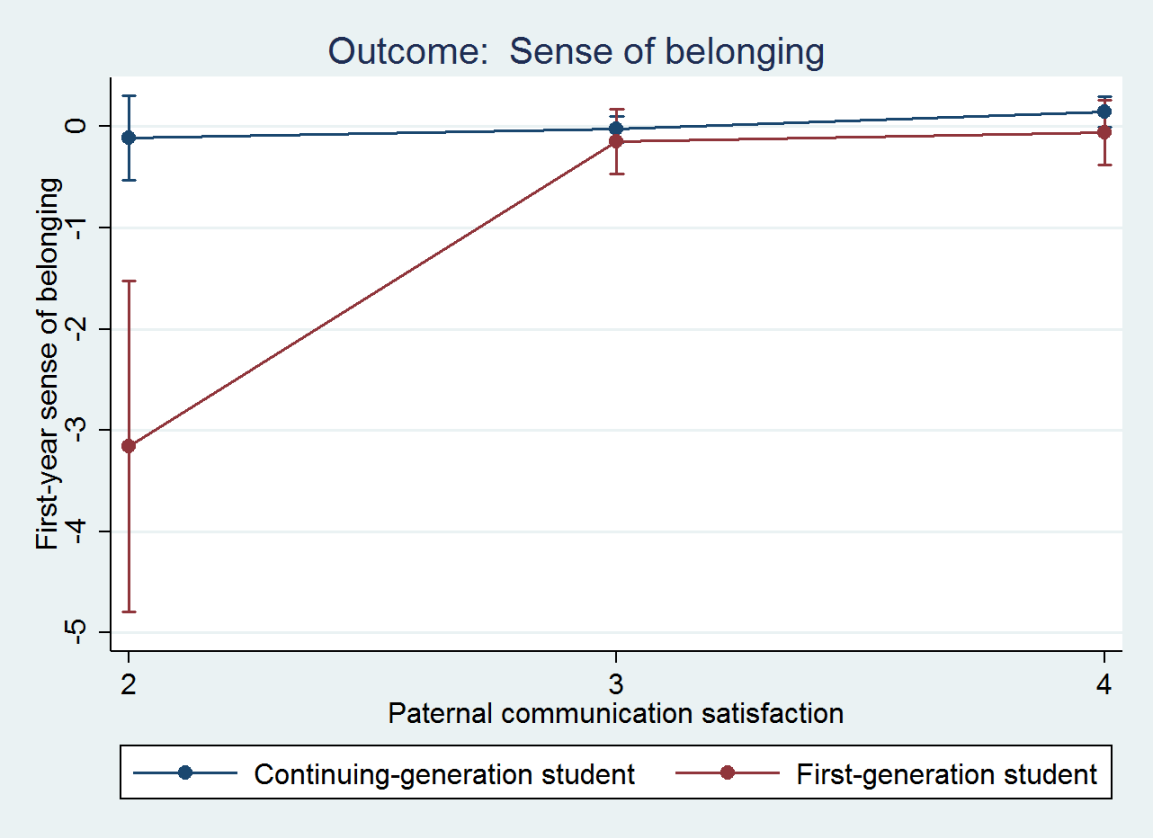
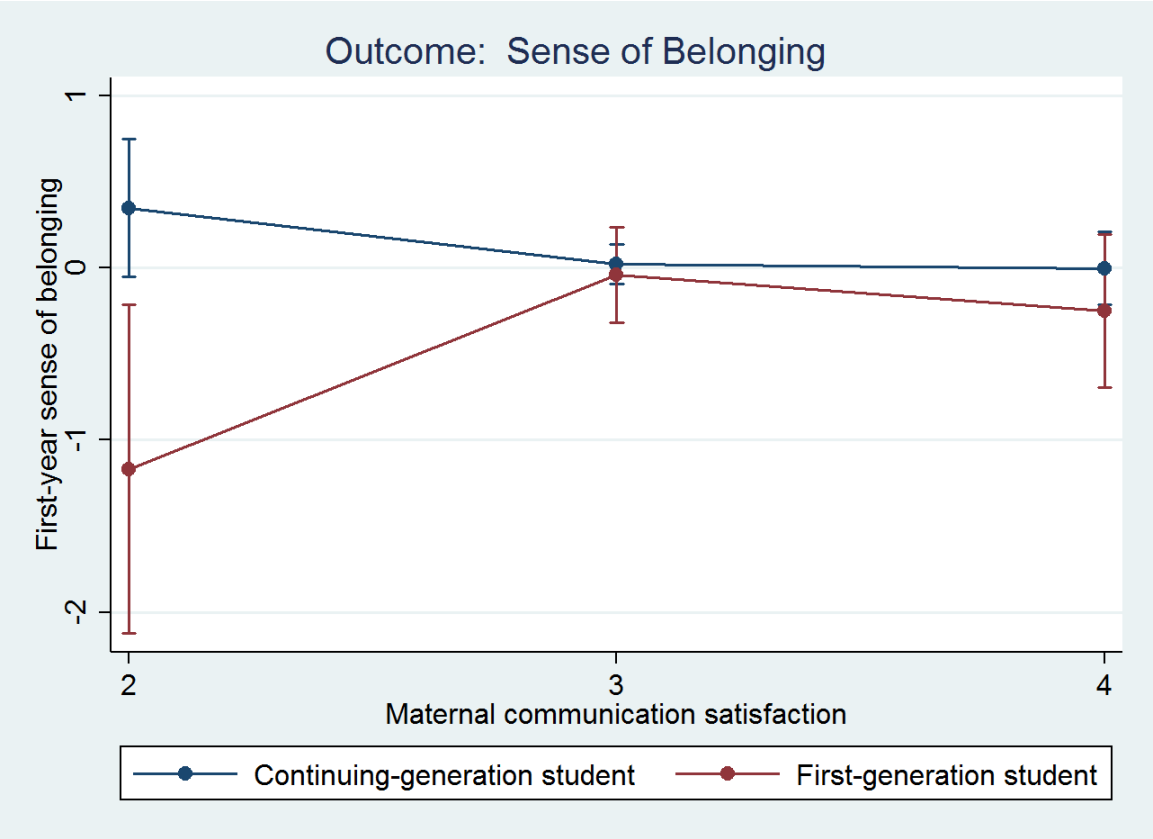


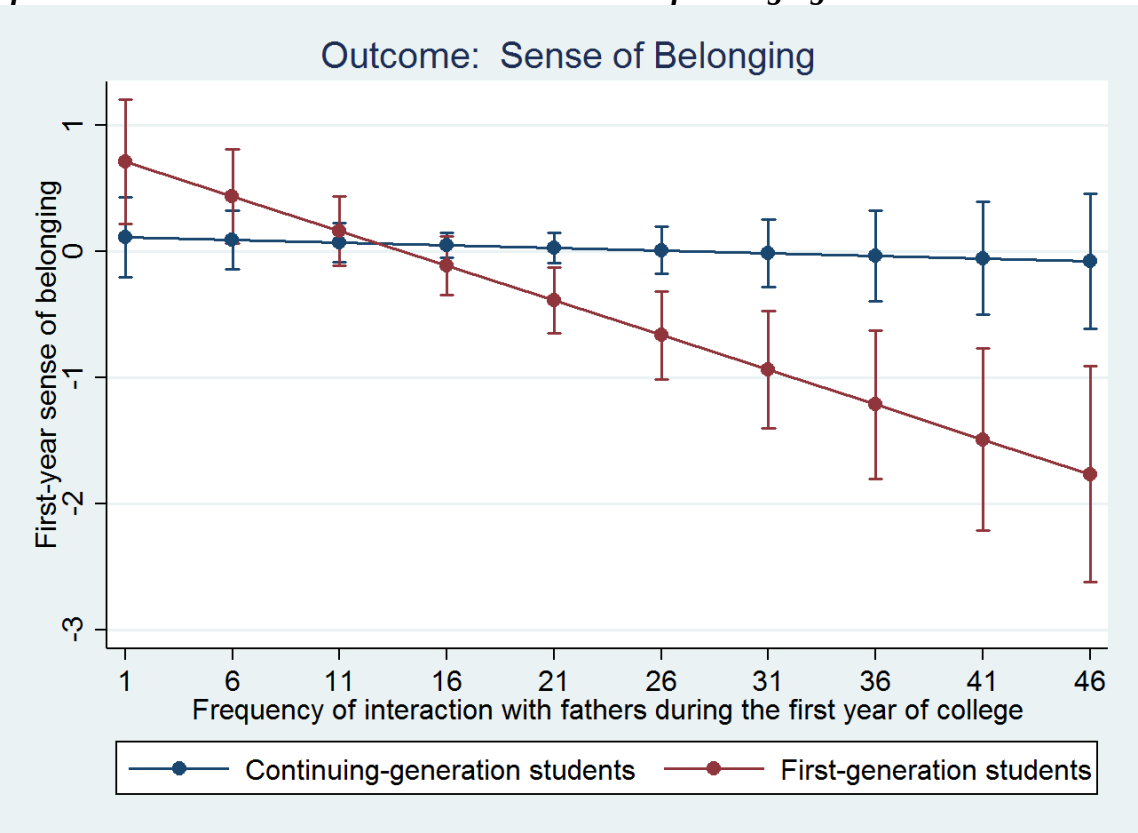
Figure 4.3. Interaction between Status as a First-Generation College Student and Satisfaction with the Amount of Communication with Mothers with First-Year Sense of Belonging



This dynamic is further reflected in Figure 4.4, which visualizes a significant interaction between status as a first-generation college student and frequency of interaction with fathers on first-year sense of belonging ($F(1,330)=9.09$, $p=0.0028$). For first-generation college students, increases in frequency of communication with fathers correlates with weaker sense of belonging on campus. No such relationship is detected for continuing-generation college students. Research suggests that first-generation college students benefit from engagement, encouragement, and emotional support provided by family (Wolf, 2011); this finding implies that too much communication may pose unintended consequences. Without having knowledge of the

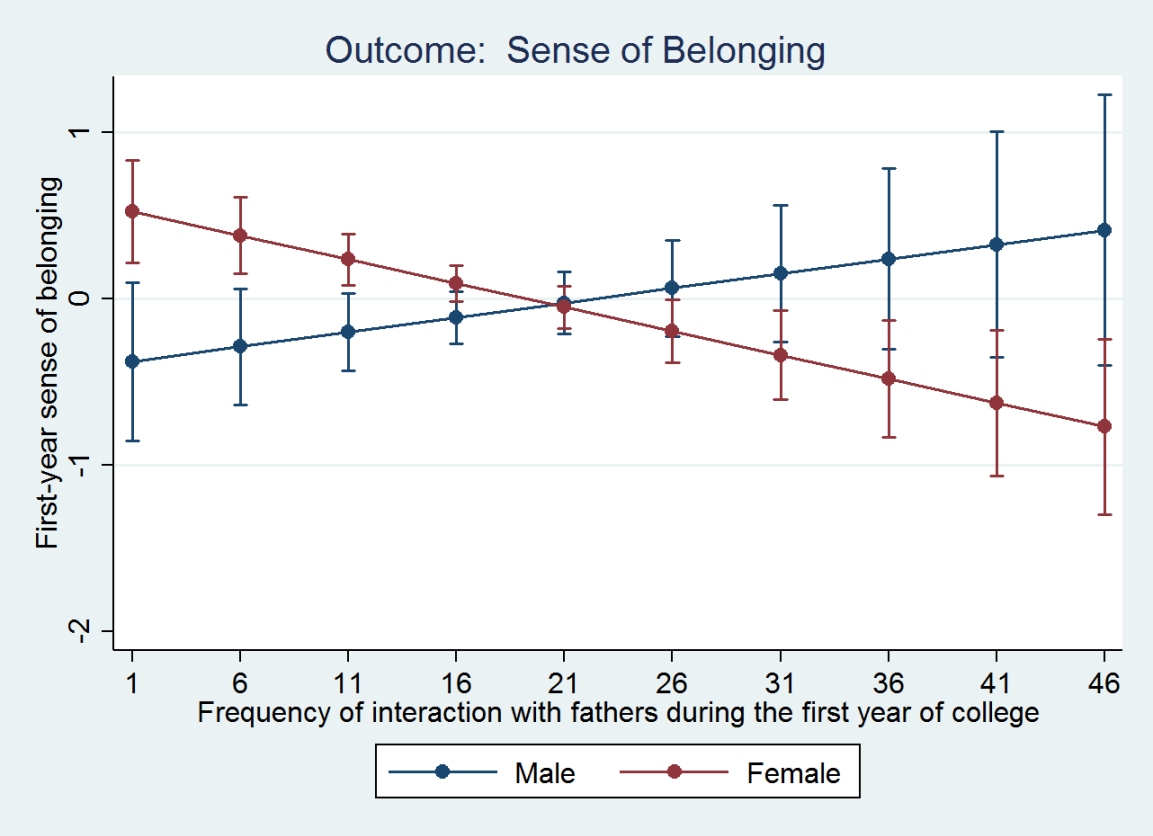
content of the interactions, it is hard to discern whether the nature of the interactions may divert the students' attention away from focusing on the college experience.

Figure 4.4. Interaction between Status as a First-Generation College Student and Frequency of Interaction with Fathers with First-Year Sense of Belonging



As shown in Figure 4.5, there was a significant difference in the effect of frequency of communication with fathers on first-year students' sense of belonging for women and men ($F(1,351)=8.95$, $p=0.003$). For women, frequency of interaction with fathers was negatively associated with first-year belonging, whereas for men the opposite held true. Thus, compared to men, women's sense of belonging trends in the opposite direction to the frequency of communication that they have with their fathers. Further investigation as to whether it is the frequent communication that is tied to lower sense of belonging, or whether students who feel disconnected to the university are seeking their fathers is important in order to fully understand the unique role of fathers related to their daughter's college experience.

Figure 4.5. Interaction between Sex and Frequency of Interaction with Fathers with First-Year Sense of Belonging



Fourth-Year Integration

Research Question 3 parsed out the relationship between student-parent interactions and key indicators of fourth-year integration, and explored how relationship differed by gender, race and ethnicity, and class. This section evaluates the relationship between student-parent interactions and fourth-year integration. Fourth-year integration was defined using three constructs similar to the three factors that defined first-year adjustment. When available, the constructs were exact or near-exact replicas of the first-year measures.

Table 4.21 summarizes the final regression results for each outcome measure used to define fourth-year integration. Included in the table are variables that entered any of the three regressions; blank cells indicate that a variable did not enter that particular model. This format enables us to visualize the relevant variables across all models and to provide an overview of

how student-parent interactions are associated with the three dimensions of fourth-year integration. Step-by-step beta coefficients for each independent variable entering the regression models are located in the appendix (See Appendix E-4 for emotional well-being, Appendix E-5 for academic integration, and Appendix E-6 for sense of belonging).

The total proportion of variance accounted for by variables in each model ranged from 30 percent (for emotional well-being) to 36 percent (for academic integration). For emotional well-being and sense of belonging, the pretest (e.g., the first-year counterpart measure) explained 20 percent of the variance in emotional well-being and sense of belonging. For academic integration, the pretest of first-year adjustment explained only eight percent of the variance. Instead, the strongest predictor of fourth-year academic integration was ease getting to know faculty, which explained 19 percent of the variance in the outcome measure. In fact, consistent with the first-year results, interactions with agents of socialization explained the largest proportion of the variance across all measures of fourth-year integration. Parent measures played a much smaller role, only explaining one percent of the variance in academic integration; parent measures did not enter the equation at all for emotional well-being or sense of belonging. Thus, it seems that the parental role has diminished to a negligible level by the fourth year of college.

Moving now to the specific variables entering prior to the parent variables, I begin with the background characteristics (block 2). Students with parents educated outside of the United States indicated lower levels of emotional well-being and sense of belonging, though it lost significance by the final step of the sense of belonging model. In addition, students with one or more parents born outside of the United States indicated lower levels academic integration. Taken together, these results underscore how students receive educational capital from having parents born and educated in the United States (Douglass et al., 2007). The final measure in the

demographics block showed that women reported significantly higher levels of academic integration than did men.

Among measures that describe non-college pressures (block 3), the frequency with which students visit home was a negative predictor of both sense of belonging and emotional well-being, though it lost significance in the emotional well-being model. It is unclear whether students who are less attached to campus are visiting home more often, or if frequent visits home lead to lower sense of belonging on campus. The number of hours per week spent engaged in volunteer work was a positive predictor of emotional well-being. In addition, the number of hours spent using online social networking sites for personal reasons positively predicted academic integration and sense of belonging, though it lost significance by the final step in predicting sense of belonging. There are two possibilities to the positive association between students' use of online social networks and academic integration. First, students may be increasingly communicating with students on campus. Second, networking may be a part of courses (e.g., group discussion boards as a course requirement).

Among college behaviors and experiences (block 4), the number of hours per week spent participating in student clubs and engaging in exercise and sports were positive predictors of students' sense of belonging. Participation in student clubs also positively predicted emotional well-being, but this variable lost significance by the final step. The one college experience associated with lower integration was hours per week spent studying; the more time that students devoted to their studies, levels of academic integration were actually weaker. Data on these three behaviors reinforce the value of social connections. That is, studying is by and large an independent and less social activity, while, in contrast, exercise and sports is often a social activity as is participating in clubs.

Among interactions with agents of socialization (block 5), ease getting to know faculty was a strong predictor across all three outcomes. In addition, socializing with friends was a positive predictor of emotional well-being; however, it never entered as a significant predictor of academic integration or sense of belonging. This unexpected result is explained by a competing relationship with students' participation in clubs, which correlates with socializing with friends ($r=.23$, $p<.001$). Taken together, these results speak to the continued role that peers and professors play in students' fourth-year integration. Above all, the impact of professors on fourth-year integration underscores the impact that faculty can have on students' academic, emotional, and social development.

Effects of Parent Variables

Similar to the first-year model, there was multicollinearity among the parent variables. Consequently, there was some instability in the beta coefficients as the correlated variables competed with each other, though less so given the reduced observed role of parents in the fourth year of college. Over time, interactions with parents became less salient to their students' college experience. By the fourth year, only one parent measure entered the equation, and it explains only a minimal proportion of variance. For example, among parent variables, quality of interaction with fathers entered as the only positive and significant predictor of academic integration. No parent measures entered the model as significant predictors of fourth-year academic integration or emotional well-being. These findings suggest that students are functioning independent of their parents and are increasingly turning to their peers and faculty for support. This theme of students exhibiting signs of independence is discussed in Chapter 5.

Table 4.21. Regression Predicting Fourth-Year Integration (n=368)

	Emotional Well-being		Academic Integration		Sense of Belonging	
	r	Final Beta	r	Final Beta	r	Final Beta
Block 1: Pretest						
First-year emotional well-being	0.45***	0.42***		-		-
First-year academic adjustment		-	0.29***	0.23***		-
First-year sense of belonging		-		-	0.44***	0.41***
	(R^2=0.20)		(R^2=0.08)		(R^2=0.20)	
Block 2: Student background characteristics/pre-college traits						
Parent educated outside the US	-0.19**	-0.11*			-0.13**	-0.05
Parent born outside the US			-0.22	-0.10*		
Gender: Female			0.15**	0.14***		
	(R^2=0.23)		(R^2=0.14)		(R^2=0.21)	
Block 3: Non-college pressures						
Visit home	-0.12**	-0.08			-0.11*	-0.12**
Hours/week: Doing volunteer work	0.12**	0.08				
Hours/week: Using online social networking sites for personal reasons			0.06	0.09*	0.08	0.07
	(R^2=0.24)		(R^2=0.15)		(R^2=0.24)	
Block 4: College experiences and behaviors						
Hours/week: Student clubs	0.15**	0.08			0.29***	0.21***
Hours/week: Studying			-0.11*	-0.11*		
Hours/week: Exercise/sports					0.19	0.10*
	(R^2=0.25)		(R^2=0.17)		(R^2=0.30)	
Block 5: Interactions with agents of socialization						
Ease: Get to know faculty	0.23***	0.14**	0.50***	0.44***	0.21***	0.14**
Socialize with friends	0.22***	0.12**				
	(R^2=0.30)		(R^2=0.36)		(R^2=0.32)	
Block 6: Student-Parent Interactions						
Quality of interaction with mother						
Quality of interaction with father			0.24***	0.12**		
Final R^2	(R^2=0.30)		(R^2=0.38)		(R^2=0.32)	

Coefficients shown only for variables that entered the model. Significance indicated by *p<0.05,
A dash (-) indicates no pretest was entered into the model.

Variations by gender, race and ethnicity, and class

Although gender, race and ethnicity, parental income, and status as a first-generation college student did not enter the main effects model as significant predictors of fourth-year integration, interaction terms were still analyzed to determine whether the relationship between student-parent interactions and fourth-year integration depended on students' background characteristics. None of these interactions were significant in any of the three regression models that explain fourth-year integration. Thus, the relationship between student-parent interactions and key indicators of fourth-year integration, when it exists, was similar for all groups tested and does not depend on gender, race and ethnicity, parental income, or status as a first-generation college student.

The Effect of Changes in the Frequency of Student-Parent Interactions

The unique dimension of Research Question 4 lies in identifying how changes in the frequency of students' interactions with their parents affect the three aspects of fourth-year integration as analyzed in Research Question 3. In order to identify changes in student-parent interactions during college, frequency of communication in the first-year was entered in the step immediately prior to entering frequency of communication in the fourth-year. Accounting for variation at each time point was a way to discern whether changes in the frequency of interaction were associated with the outcomes of interest.

As indicated in Table 4.21, no parent measures describing frequency of interactions entered for either parent across all regression models. Given that no parental frequency of interaction measure was a significant predictor of any of the outcome measures in the same models, there is no evidence that change in frequency of interaction was predictive of fourth-year integration. This lack of significance was somewhat expected, as there was only marginal

change reported in students' communication patterns with either parent during college, as revealed in the descriptive findings (see Table 4.1). The complete regression models are located in the appendix. (See Appendix E-7 for maternal emotional well-being, Appendix E-8 for paternal emotional well-being, Appendix E-9 for maternal academic adjustment, Appendix E-10 for paternal academic adjustment, Appendix E-11 for maternal sense of belonging, and Appendix E-12 for paternal sense of belonging.)

Table 4.22. Regression Predicting How Changes in Student-Parent Interactions are Associated with Fourth-Year Integration (n=368)

	Emotional Well-being			Academic Integration			Sense of Belonging		
	r	**Final Beta**	**R^2**	**r**	**Final Beta**	**R^2**	**r**	**Final Beta**	**R^2**
Maternal communication									
Frequency of interaction with mother during the first year	0.07	0.05	0.27	**0.11**	0.02	0.37	0.13	**0.11**	0.33
Frequency of interaction with mother during the fourth year	-0.02	-0.05	0.28	0.08	-0.03	0.37	0.04	-0.08	0.33
Paternal communication									
Frequency of interaction with father during the first year	0.08	0.06	0.28	**0.12**	0.02	0.37	0.05	0.00	0.33
Frequency of interaction with father during the fourth year	0.02	-0.03	0.28	**0.14**	0.04	0.37	0.01	-0.04	0.33

Bold indicates significant zero order and beta coefficients significant in the final models ($p<0.05$).

Summary of the Multivariate Findings

Results of the regression models elaborate on what was learned from the descriptive findings. The descriptive results revealed that students maintain ongoing communication with their parental figures during college, though there is not meaningful change in the amount of interaction between the first and the fourth year. Overall, students are quite satisfied with their communication, and would desire more communication versus less. Finally, students generally perceive their interactions to be positive with both mothers and fathers.

Extending these results further, the multivariate findings reveal that perceiving one's communication with parental figures to be of higher quality had a positive association with first-year adjustment. Consequently, more frequent interaction with a parent or desire for greater interaction (e.g., dissatisfaction with the amount of communication) revealed negative associations with first-year adjustment. Additional interactions between gender, race and ethnicity, and status as a first-generation college student and students' frequency, perceived quality, and satisfaction with the amount of communication were significant predictors of students' emotional, social, and academic adjustment. In the first year, parents contribute to students' college adjustment; however, the most significant agents of socialization for first-year students are friends and faculty.

As students progress to their fourth year in college, results indicated that certain college experiences and behaviors played the greatest role in students' integration, while parents played a less pronounced role. For instance, socializing with friends and time spent engaged in activities such as exercise/sports and clubs, use of online social networking sites that often involve a lot of peer contact, had positive and strong associations with emotional, academic, and social integration. Interestingly, the results pointed towards an evolution in which the use of

online social networking sites for personal reasons may have changed over the four years. Specifically, students likely became more adept at incorporating online social networking sites into their college routine, therefore allowing this behavior to support their academic experience. The role of parental quality remains evident, but the overall strength is less than the effect of peers and professors. Finally, these data suggested that the relationship between students and their parents with fourth-year integration operated similarly across gender, race and ethnicity, and class.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

This concluding chapter begins with a synopsis of the study's objectives and research questions, a review of the guiding theoretical frameworks and a summary of the methodological approaches. Then, findings from the study are discussed in relation to the extant literature, and implications for university administrators and parental figures are addressed. The chapter concludes by aligning the study's limitations with recommendations for future research.

Overview of the Study

As a result of exponentially rising college costs and rapid technological advancements, the parental role during college has changed considerably. Understanding the most effective ways for supporting college students' adjustment and integration, while simultaneously managing parents' desire for greater engagement is a central challenge facing university administrators.

Whether college is a time to separate from family in order to establish autonomy, or one during which ongoing contact with parents helps students adjust and integrate, remains unanswered. Moreover, it is vital to note that different gender, racial, and socioeconomic groups experience campus life differently; thus, these groups may not communicate with their parents in the same ways.

To advance the research on this topic, this study examined how the frequency and nature of students' interactions with their mothers and fathers predicted first-year adjustment and fourth-year integration. The study addressed the following four broad categories of research questions:

1) Nature of Student-Parent Interactions

a. What are the frequency and mode of students' interaction with their parents during college? How does this change between the first and fourth years of college?
b. What is students' perceived quality of and satisfaction with the type and amount of communication they have with their parents during the first and fourth years of college?
c. How does the frequency, mode, and perception of student-parent communication vary by gender, race and ethnicity, and class?

2) Effects of Student-Parent Interactions on First-Year Adjustment
   a. How are student-parent interactions associated with key indicators of first-year adjustment (academic adjustment, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?
   b. How does the association between student-parent interactions and first-year adjustment vary by gender, race and ethnicity, and class?
3) Effects of Student-Parent Interactions on Fourth-Year Integration
   a. How are student-parent interactions associated with key indicators of fourth-year success (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?
   b. How does the association between student-parent interactions and fourth-year success vary by gender, race and ethnicity, and class?
4) The Effect of Changes in Student-Parent Interactions on Fourth-Year Integration
   a. How are changes in student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of

belonging), controlling for student demographic characteristics, college experiences, and first-year student-parent interactions?

As explained in Chapter Two, the primary theories which served as a foundation for the study were attachment (Ainsworth & Bell, 1970; Bowlby, 1973) and separation-individuation theory (Josselson, 1987). These frameworks were supplemented by Pascarella's (1985) Model of Student Learning as well as Cognitive Development and Weidman's (1989) Model of Undergraduate Socialization. In addition, Sax's Conditional Effects Model of College Impact (2008) framed the examination of gender, race and ethnicity, and class differences. As illustrated in Chapter Three, these three theories in conjunction with extant literature on the topics of student-parent interactions, first-year adjustment, and fourth-year integration, guided the selection of independent variables and the analytical design of the study.

Using survey data collected from college students prior to matriculation, at the end of the first year, and during the fourth year of college, the results of this study are focused on the 368 students who identified a mother or father as the parental figure they communicated with the most and participated in all three surveys. The dependent variables addressed key aspects of first-year college adjustment (emotional well-being, ease at academic adjustment, and sense of belonging) and fourth-year college integration (emotional well-being, academic integration, and sense of belonging). The primary independent variables of interest were those gauging students' frequency, mode, and nature of communication with their parental figures.

As explained in Chapter Three, this study included two phases of analysis. In the first phase, descriptive statistics were used to explore the frequency, mode, and nature of students' interactions with their parents during the first and fourth years of college. Next, the analysis measured changes in the interactions from the first to the fourth year, and how they varied by

gender, race and ethnicity, and class through ANOVA and paired-sample t-tests. In the second phase of analysis, stepwise linear regression was performed to investigate the relationship between students' interactions with their mothers and fathers and key indicators of first-year adjustment and fourth-year integration, while accounting for students' pre-college traits and college experiences. Interaction terms were included in the regression models to further determine how the results were moderated by gender, race and ethnicity, and class.

Discussion of the Findings

The sections that follow present the findings from Chapter Four in the context of the higher education landscape today and link these findings to current literature on the topic of parental engagement. When discussing the results and whether or not they supported, partially supported, or rejected the hypotheses, I link the results to the literature reviewed in Chapter Two. The results are discussed in the order the research questions were posed.

Descriptive Results

Research Question 1a. *What are the frequency and mode of students' interaction with their parents during college? How does this change between the first and fourth years of college?*

As hypothesized, students interacted with their mothers more often than with their fathers. Talking to mothers by phone took place frequently, multiple times throughout the week in the first year; however, phone conversations with fathers occurred only monthly. By the fourth year of college, overall communication decreased as expected, save for increases in text messaging with both parents. In further support of my hypothesis, the primary modes of communication during both years were mobile phone, text messaging, and email, and use of analog modes of communication (e.g., face-to-face and postal mail) was less common.

While this study examined a longitudinal dataset, a previous study by Sax and Weintraub (2016) examined the full responses of first-year students only. The results of the present study are consistent with the findings by Sax and Weintraub (2016) in both samples students most commonly spoke to mothers and fathers by phone, followed by text messaging. Phone communication averaged out to be a little more than once per week with mothers and monthly with fathers. Across all modes, rates of communication with mothers were significantly higher than with fathers. Prior research also documents the most common modes of communication between parents and their college-aged children as mobile phone, text messaging and email communication (Chen & Katz, 2009; Lee et al., 2009; Wei & Lo, 2006). Most of the extant literature examining college students' communication patterns with their parents is cross-sectional and descriptive in nature; however, Wolf et al.'s (2009) study did consider students across multiple years. Similar to the results of this study, Wolf et al. (2009) found that seniors communicated with their parents less than did students with less college experience.

There are at least two possible explanations for why students favored asynchronous communication (e.g., text message) as compared to synchronous communication (e.g., phone). First, perhaps a reliance on asynchronous communication helps students to avoid the behaviors of potentially hovering parents. Since students can opt to respond to a parent's text messages on their own accord and with as much or as little detail of their current activities as they choose, one can surmise that the format of text messaging may curtail intrusive and meddling parental behaviors. Of course, the hovering parent can still exist (e.g., sending multiple texts in a row) but this medium enables the student to exercise boundaries by not responding immediately or at all to intrusive texts. Greater reliance on asynchronous communication may also be explained by media niche theory, which suggests that newer digital forms of technology compete with and

fulfill similar functions as older, more analog forms of communication (Dimmick, Kline, & Stafford, 2000). Students enjoy the more efficient, rapid response, and fewer characters of these newer modes (e.g., text messages and email) and rely on them more than synchronous modes, which have parallel functions though asynchronous modes do not require advanced planning (Ramirez, Dimmick, Feaster, & Lin, 2008; Schon, 2014).

Research Question 1b. *What is students' perceived quality of and satisfaction with the type and amount of communication they have with their parents during the first and fourth years of college?*

In this study, students described their interactions with both parents positively and they were generally satisfied with the amount of interaction that they had with their parents during both the first and fourth years of college, which supports my hypothesis. Sax and Weintraub's (2016) study, which extends this sample to all students who participated in the first year survey (n=995), also found that students were quite satisfied with the amount of communication that they had with their parents. The overarching narrative of these responses portrays parents differently from the media's representation. Contrary to the media narrative, which would suggest that parents are overly involved and overbearing, students were generally quite satisfied with the amount of communication that they had with their parents. If anything, students desired greater interaction, especially with their fathers. This finding is interesting because interaction with fathers has been associated with positive college adjustment (Hannum & Dvorak, 2004; Sarigiani et al., 2013). Furthermore, students in Hofer and Moore's (2010) qualitative study expressed interest in speaking more frequently with their fathers. These findings highlight the need to convey to fathers the value of maintaining ongoing communication with their children during college (Hofer & Moore, 2010; Sarigiani et al., 2013). Perhaps further examination of the

topics about which students' desire paternal guidance would improve communication between fathers and children during college.

Students also described their parental interactions positively using words such as supportive and respectful. Only a limited number of students used descriptors akin to the helicopter or tiger mom metaphors such as "intrusive" or "overly involved." This suggests that only a small fraction of parents are perceived by their children as displaying hovering or overbearing behavioral tendencies, despite the media hype over these extreme-parenting behaviors. Of course, there are multiple perspectives on this dynamic. On the one hand, college students may have grown accustomed to their parents being overly involved to the point that they no longer perceive it as intrusive. On the other hand, an observer might nevertheless interpret current parent behaviors as overly involved, fearing that a codependent relationship has formed between students and their parents, in that over-involvement has led to a boundary-less relationship in which parents are living vicariously through their children.

Ultimately, we must not assume that high frequency of communication is undesired or harmful. In particular, this study did not consider the content nor the initiator of the communication, and thus lacks insight into whether regular text messaging is an example of pestering or overbearing, third-degree questioning or if it is a casual and supportive way of checking in regularly. Students' perceptions suggest it is not overbearing, but additional content-based study is surely warranted.

Research Question 1c. *How does the frequency, mode, and perception of student-parent communication vary by gender, race and ethnicity, and class?*

Gender. As hypothesized, both genders preferred digital forms of communication (e.g., mobile phone and text message) over non-digital forms of communication (e.g., video chat, face-

to-face interaction, or postal communication). Contrary to my hypothesis, women on average maintained weekly communication with their mothers during both the first and fourth years of college, though their preferred modes differed over time, in that phone was the preferred mode in the first year and text became the favorite in the fourth year. Men communicated weekly with mothers in the first year and decreased this frequency to multiple times in a month during the fourth year; with fathers, they talked multiple times in a month during the first year of college and decreased this frequency to once a month during the fourth year. Overall, students were satisfied with the amount of communication that they had with their parents, though women were more likely to indicate a desire for more communication with their parents, particularly with their fathers.

As explained in Chapter Three, the current study combined stepfathers with fathers in order to preserve cases. An important caveat is that there was a significantly greater proportion of fathers in this study's sample and only 0.1% of them were stepfathers. Given this very small percentage of stepfathers, it is unlikely that the stepfathers in the sample mask women's desire for more communication with their fathers. In other words, women are reporting that they are dissatisfied with the amount of communication that they have with their biological fathers and the stepfathers in the sample have little to no influence over this finding.

Women's slight dissatisfaction with the frequency of communication that they had with their fathers was expected and aligned with my hypothesis. Elaborating on the research described in the previous question, women, in particular, have been shown to desire greater interaction with their fathers during college (Hofer & Moore, 2010; Sarigiani et al., 2013). Specifically, women in more frequent contact with fathers had more positive college adjustment

and a closer attachment with fathers and suggested a yearning to continue being "daddy's little girl" (Sarigiani et al., 2013).

Given these results, women's frequent phone communication with their mothers provided evidence of a very close relationship that was not matched by any other parent-student gender combination. The emergent pattern of women communicating more frequently than men, and communication favoring mothers for both genders, is consistent with previous research using these same data (Sax & Weintraub, 2014) and using data obtained from different sources (Sarigiani et al., 2013; Wolf, Sax, & Harper, 2009). These findings resonate with literature on gender and parent relationships that correlate women's pattern of calling home more frequently with a desire for maintaining strong ties to their parents; this is documented as a stronger concern for women than men (Allen & Stoltenberg, 1995; Kenny & Rice, 1995).

Race and Ethnicity. I hypothesized that White/Caucasian and Latinx American students would have more frequent interaction with parents as compared to both Asian American groups. Furthermore, I posited that White/Caucasian students would rely on digital modes when interacting with parents (e.g., phone, text, email) and would have less face-to-face interaction than Asian American and Latinx American college students. Based on the results, the accompanying hypothesis was partially supported. While the frequency with which students communicated revealed few significant differences across racial and ethnic groups, there were significant differences in the preferred modes of interaction.

The lack of significant differences in terms of frequency challenge prior literature suggesting that White students and Chicano/Mexican American college students communicated more frequently and Japanese/Japanese American, Chinese/Chinese, and Thai/Other Asian students had lower levels of contact (Wolf et al., 2009). With respect to the differences in mode

preferences, these findings support the extant literature that documents a technology gap between racial groups (Lopez et al., 2013). For instance, White/Caucasian students communicated with their parents primarily using phone and text compared to Latinx American and Filipinx and Vietnamese students, who had more face-to-face interaction. The pattern of face-to-face communication[9] being higher for Latinx American and Filipinx and Vietnamese students affirms a sense of closeness these students have with their families (Fuligni, 2007; Sy & Romano, 2008). Furthermore, it is more common for Latinx American students to either attend colleges near home or live at home in order to maintain a strong family connection and fulfill family obligations (Sy & Brittian, 2008); therefore, the fact that these students engaged in more frequent face-to-face interaction affirms these notions (Ovink & Kalogrides, 2015; Tornatzky et al., 2003). As introduced in Chapter 2, this closeness, particularly within Latinx American families, is encapsulated in the cultural value of familialism, which strongly emphasizes familial loyalty and putting the needs of the family first, even if it means making personal sacrifices. (Desmond & Lopez Turley, 2009; Vega, 1990). Despite the education attainment gap between many Latinx parents and their children, these students may actively speak with their parents about their college plans by providing information to their parents as opposed to parents sharing information to their children about what to expect in college (Pérez & McDonough, 2008). While some might raise concern that emphasis on family would limit Latinx students' college experience, CIRP data reveal, for example, that choosing a college in order to remain closer to home increased degree attainment among Mexican American females by 26%, and that Mexican American students were more likely to cite closeness to home as a factor in their college choice

[9] Students' distance the college is from their home was highly correlated with face-to-face communication (r=0.68). Due to multicollinearity, the regression analysis did not control for distance from home. Latinx and Filipinx and Vietnamese students' greater face-to-face communication may be partially explained by living near their familial home.

(Cerna, Pérez, & Sáenz, 2009). Although most non-Hispanic White youth do indicate that they highly value their family relationships, this value is less central in shaping their career decisions and everyday behaviors, compared with Latinos and other immigrant youth (Fuligni, Witkow, & Garcia, 2005). Indeed, familial support and closeness has been shown to benefit Latinx students' degree attainment, career decisions, and overall well-being (Cerna, Pérez, & Sáenz, 2006; Fuligni, Witkow, & Garcia, 2005; Pérez & McDonough, 2008).

Turning to the nature of students' interactions with their parents, there was no prominent pattern that emerged. These results were contrary to my hypothesis. With respect to quality of interaction, the only significant differences that emerged occurred in the fourth year, and suggested that White/Caucasian students perceived their interactions with their mothers to be more positive than did Filipinx and Vietnamese students. While an explanation for this is not immediately clear, differences in parental influences and behaviors may be an explanation for the less positive perception of interactions from Filipinx and Vietnamese students. For example, in a study of how parents influence the educational trajectories of South East Asian Pacific Islander students at five four-year public universities, a number of Vietnamese students explained that as a result of excessive parental pressure, they felt like a failure and were worried of parental disapproval (Museus, 2013). While this finding aligns with the "tiger mom" phenomenon (this time applied to Vietnamese students), application to the present study must be done with caution given the small sample in Museus' study and the fact that content of communication was not examined in the current study.

In the fourth year, White/Caucasian students perceived their communication with their fathers to be more positive than did students from both Asian groups. As for communication satisfaction, all groups' desire for increased communication is stronger with their fathers than

with their mothers, in both the first and fourth years, and satisfaction with parental communication showed no change over time.

Class- Status as a First-Generation College Student. In support of my hypothesis, students with college-educated parents maintained more frequent interaction with their parents using digital modes of communication than did first-generation college students. As expected, first-generation college students had greater face-to-face interaction than did continuing-generation college students, though the face-to-face interaction was approximately monthly, as opposed to my hypothesis, which predicted weekly interaction. Finally, all students had positive perceptions of the communication and were generally satisfied with the amount of communication, which supported my hypothesis.

Prior research supports the finding that face-to-face communications[10] are more common among first-generation college students than continuing-generation students; after all, first-generation college students are more likely to live close to home (Lohfink & Paulsen, 2005). In addition, first-generation college students are more likely than continuing-generation college students to have family responsibilities that require returning home on a regular basis (Wolf, 2011).

Class- Parent Income. With respect to frequency of interaction, the results support my hypothesis in that students from the higher-income quartile groups talked with parental figures more frequently using digital modes of communication, whereas, lower-income quartile groups had more face-to-face interaction. These patterns held constant from the first to the fourth year. This result is explained by the fact that lower-income students tend to live either at home or are actively returning home to contribute to family needs (Lohfink & Paulson, 2005). The patterns

[10] Due to multicollinearity, the regression analysis did not control for distance from home. First-generation college students' greater face-to-face communication may be partially explained by living near their familial home.

of communication for income quartiles bears a strong resemblance to that of racial groups; hence, I recommend future research explore the intersectionality of these traits.

Turning to the quality and satisfaction with the frequency of communication that students experience with their parental figures during the first and fourth years of college, the results partially supported my hypothesis. While no significant differences across income groups emerged when evaluating quality comparing mothers and fathers, there was a pattern in which higher-income groups tended to perceive their parental interactions to be of higher quality than did lower-income groups. Parents who share their resources and abilities through involvement in academic matters, may also transmit their values and preferences for particular college programs (McDonough, 1997), course-taking patterns (Valadez, 2002), and co-curricular academic activities (Lareau, 2002), which supplies their children with educational capital (Coleman, 1988; Hoover-Dempsey & Sandler, 1997; Ma, 2009). Accordingly, it stands that students from higher socioeconomic backgrounds may seek more frequent contact from parents in order to benefit from their educational capital (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

Multivariate Results

Research Question 2a. *How are student-parent interactions associated with key indicators of first-year adjustment (academic adjustment, emotional well-being, and sense of belong), controlling for student demographic characteristics and college experiences?*

Prior research using all first-year responses revealed that student-parent interactions had a small, yet significant association with first-year adjustment (Sax & Weintraub, 2016). Specifically, a pattern emerged in that higher quality of interactions and satisfaction with the amount of communication students had with their parents was associated with more positive levels of adjustment, and more frequent communication with parents yielded lower levels of

adjustment. Thus, I hypothesized that students' perceived quality of and satisfaction with parental interaction were positive predictors of first-year adjustment, whereas more frequent interaction was a negative predictor of adjustment. This was generally supported, as the results revealed that quality of interaction with fathers positively predicted all three indicators of first-year adjustment (e.g., emotional well-being, academic integration, and sense of belonging). Also, higher frequency of interaction with fathers negatively predicted emotional well-being and sense of belonging, and desiring more communication with mothers negatively predicted academic adjustment.

It is important to add that my hypothesis was also framed based on extant literature that found an association between maintaining communication with parents and positive first-year adjustment (Sarigiani et al., 2013; Wintre & Yaffe, 2000), and was mindful that researchers have also raised concerns that too much interaction may result in negative adjustment (Hofer & Moore, 2010; NSSE, 2007). That said, while parents play a role in their students' first-year adjustment, the primary sources of influence are peers and faculty. The primacy of friends and professors in students' first-year adjustment are seminal findings within student affairs literature and were previously mentioned in Chapter Two (Astin, 1993b; Bean & Eaton, 2001; Braxton, Milem, & Sullivan, 2000; Chickering & Reisser, 1993; Kuh et al., 2010; Pascarella & Blimling, 1996; Pascarella & Terenzini, 2005; Rayle & Chung, 2008; Tinto, 1993; Upcraft et al., 1989).

Furthermore, exploring whether the inverse relationship between parental communication frequency and first-year adjustment maps onto psychological theories of separation and attachment and notions of self-authorship is worth exploring further. In other words, can the fact that increased quality yielded positive adjustment and increased quantity yielded negative adjustment be considered analogous to the tension presented in separation and attachment

theory? If the goal is well-adjusted students, perhaps these results echo a sentiment that having a healthy balance between separation and attachment is optimal; in other words focusing on maximizing quality with a lower quantity of interaction may be the goal. Furthermore, the marginal significance of parents' role in the students' adjustment may suggest that students are moving away from relying on their parents as authority figures and exercising some of the fundamental principles of self-authorship by seeking out support from peers and faculty (Baxter Magolda & King, 2004; Pizzolato & Hicklen, 2011). These encouraging patterns require further quasi-experimental testing using psychometric measures and instrumentation, as well as through qualitative methods.

Research Question 2b. *How does the association between student-parent interactions and first-year adjustment vary by gender, race and ethnicity, and class?*

Gender. When examining whether the association between student-parent interactions and first-year adjustment was moderated by gender, one significant interaction emerged. Specifically, the effect of frequency of communication with fathers on first-year students' sense of belonging showed differences between women and men. For women, increased frequency of interaction with fathers negatively predicted first-year students' sense of belonging. The opposite occurred for men. This finding is partially consistent with research on the conditional effects of student-parent interactions by gender on first-year adjustment. The research used to frame my hypothesis relates to emotional well-being, which is a different indicator of adjustment than belonging. Sax and Weintraub's (2014) exploration of how the parental role in first-year students' emotional well-being differed by gender revealed a dichotomy between quality and quantity of parental interaction. For both men and women, having high quality interaction with

both parents was a positive predictor of emotional well-being, yet increased quantity of interaction showed lower levels of adjustment for both genders.

Thus, these findings indicate that quality of interaction is associated with positive adjustment, and raises caution against too much communication being associated with lower adjustment. While this study did not directly examine the outcome of sense of belonging, it is apparent from these data that too much communication between fathers and daughters may pose negative consequences on women's connection to their campus. Of course, the inverse may be true, that women who are having trouble feeling connected to their campus are actively seeking out their fathers. Nevertheless, these results add to the current literature that documents how the relationship between students' communication patterns on first-year adjustment have conditional effects for men and women.

Race and Ethnicity. A significant interaction occurred between race and frequency of interaction with mothers on first-year emotional well-being. Specifically, the emotional well-being of students identifying as White/Caucasian and East and South Asian increased with greater maternal communication, while the reverse was true for Filipinx, Vietnamese students and Latinx American students. These results rejected my hypothesis, which stated that increases in both quantity and quality of parental interaction positively predict increased levels of adjustment for students of color. Given that research examining how the relationship between student-parent interactions on first-year adjustment varies by race and ethnicity is limited, these findings can be interpreted through literature on family support in collectivist cultures. As discussed earlier, the centrality of familial closeness is also related to familialism, a tenet for Latinx American families, and provides students with emotional support, connection, and high

expectations for achieving success (Guiffrida, Kiyama, Waterman, & Museus, 2012; Kiyama et al., 2015; Museus, Maramba, Palmer, Reyes, & Bresonis, 2011, Waterman, 2004).

Given that familial closeness is particularly salient for Latinx American and Filipinx and Vietnamese students (Fuligni, 2007; Sy & Romano, 2008), it is difficult to discern what is meant by these results, as the research suggests higher quality relationships with parents would be associated with positive emotional well-being. It may be that, for these groups, interactions between students and parents are more often focused on activities and issues separate from the college experience (i.e., the family's financial or other needs), which may create more stress for the college student. However, the findings are not clear as to why this is not the case for East and South Asian students. Perhaps this is because East and South Asian parents have comparably higher levels of educational capital (Douglas et al., 2007), which in and of itself may encourage a positive relationship between student-parent communication and students' emotional well-being. A counter explanation for the negative association between emotional well-being and more frequent maternal communication for Filipinx and Vietnamese and Latinx students could be tied to immigration. The following experiences related to immigration may prompt students to seek greater interaction with their mothers: navigating the pressures of reconciling identity dissociation between those achieved and received from stereotypes, perceiving a negative campus climate, or reconciling conflicting messages from school and home, (Cress & Ikeda, 2006; Suárez-Orozco & Qin, 2006; Terenishi, Behringer, Grey, & Parker, 2009).

Class- Status as a First-Generation College Student. The findings revealed three significant interactions corresponding to differences in first-year students' sense of belonging for first-generation college students compared to continuing-generation college students. Each

finding supported my hypothesis that increased quality of communication positively predicts adjustment for both first-generation students and students with college-educated parents, while increased quantity would be a negative predictor. For first-generation college students, desiring less communication with both mothers and fathers was associated with lower sense of belonging. Also, frequency of interaction with fathers negatively predicted sense of belonging for first-generation college students. Taken together, these results demonstrate the ways that parental engagement, encouragement, and emotional support help students' facilitate a positive connection to their college; however, too much contact weakens their sense of belonging (Wolf, 2011). Future studies should examine the content of interactions to determine whether certain interactions divert students' attention away from focusing on their college experiences. In other words, it is critical to understand how the content of interactions intersects with the frequency of interactions to negatively impact sense of belonging.

Class- Parent Income. According to these data, the relationship between student-parent interactions and first-year adjustment functioned similarly across income quartiles. Therefore, the results of this question rejected my hypothesis, in that increased quality of communication was not a stronger predictor of first-year adjustment for higher-income students compared to lower-income students. My hypothesis was formed based on notions of educational capital (Lareau, 2002) and research that demonstrated that income matters in students' perceptions of family support and college adjustment in that perceptions of family support increased with rises in parent income (Elkins, Braxton & James, 2000).

Research Question 3a. *How are student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics and college experiences?*

Since current studies on the topic of student-parent interactions and fourth-year integration are sparse, I drew my conclusions from research by Cutrona et al. (1994); Ketterson and Bluestein (1997); Ratelle et al. (2005); and Simmons (2008). This research identified aspects of parental quality that predicted academic outcomes associated with integration (e.g., career exploration and academic performance). In a qualitative study, Simmons (2008) found that students sought advising on academic and career decisions from parents more often than friends. This finding aligned with earlier research that identified high quality attachment with mothers and fathers as a positive predictor of career exploration (Ketterson & Bluestein, 1997). In addition to career exploration and decision-making, Cutrona et al. (1994) learned that students were more likely to excel academically when their parents believed in their academic potential. Furthermore, feelings of autonomy mediated the relationship between involved and supportive parenting styles and higher achievement (Ratelle et al., 2005).

Thus, I hypothesized that after accounting for students' experiences prior to college matriculation and college experiences and behaviors, quality of interaction with fathers would positively predict academic integration. The findings lend partial support to my hypothesis. According to these data, perceived quality of interaction with fathers was the sole positive parent-related predictor of academic integration. It remains the fundamental truth that peers and professors are the most salient force of socialization in fourth-year students' integration. This is a conflicting finding in that it both supports students' journey towards independence, and yet shows some elements that do not cohere with the narrative of parent over-involvement. Furthermore, there is the question of whether better-integrated students are by definition those who have a relationship with faculty. Overall, these findings suggest that students are increasingly turning to their peers and faculty for support on college-related matters more so than

their parental figures, which can be interpreted as exhibiting signs of independence, though this study did directly test this psychological process.

Research Question 3b. *How does the association between student-parent interactions and fourth-year integration vary by gender, race and ethnicity, and class?*

Gender. Since research on the conditional effects of gender on the parental role in fourth-year students' integration are virtually non-existent, the hypothesis for this question is a prediction based on the first-year sample of this dataset. Specifically, Sax and Weintraub (2014) found that frequent communication between women and mothers was associated with lower emotional well-being; however, this effect was not significant for men. Moreover, desiring greater communication with fathers was a negative predictor of emotional well-being for both genders (Sax & Weintraub, 2014). In particular for women, seminal research on gender differences in parental socialization and the reversal of the gender gap in education also suggest the differential ways in which men and women are encouraged to pursue education and learn about peer relationship formation from parents (DiPrete & Buchmann, 2013). Hence, I drew the conclusion that perceived quality of interaction would be more strongly positively associated with fourth year integration outcomes for women as compared to men. In addition, frequency of communication with parents would negatively predict integration outcomes for women, but would be insignificant for men. My hypothesis was rejected as the association between student-parent interactions and fourth-year integration did not vary by gender.

Race and Ethnicity. Contrary to my hypothesis, the relationship between student-parent interactions and key indicators of fourth-year integration was similar for all racial and ethnic groups in the study. These results are surprising given prior research suggesting that family support provides benefits to first-year students differently by race and ethnicity (Hurtado et al.,

1996). For instance, students from Latinx and Asian American families often come from a community-oriented cultural upbringing that value maintaining close relationships with family (Wolf, 2011). The parental role in fourth-year students' integration might be so negligible to the point that any differences across racial groups are imperceptible within this sample. Alternatively and more likely the case, the lack of racial and ethnic differences corresponding to the relationship between student-parent interactions and fourth-year integration could be a result of sample limitations given the size of each racial and ethnic group, even if there is a substantial effect.

Class- Status as a First-Generation College Student. Contrary to my hypothesis, the relationship between student-parent interactions and key indicators of fourth-year integration was similar for first-generation college students and continuing-generation students. Thus, neither quality nor quantity of interactions had a unique benefit for first-generation college students. My hypothesis, though unsupported, was based on experiences of students in Wolf's (2011) qualitative dissertation. Fulfilling family obligations during college led to more frequent face-to-face interactions between first-generation college students and their parents as contrasted with their continuing-generation contemporaries. These students described mothers as *excessively involved* and *overly attached* in ways that impeded their social and academic integration (Wolf, 2011). These dynamics did not emerge in my quantitative analysis, though future qualitative research would be useful in addressing this issue in greater depth.

Class- Parent Income. The relationship between student-parent interactions and fourth-year integration was not moderated by income quartiles. Therefore, the results of this question rejected my hypothesis in that students from lower socioeconomic classes did not disproportionately benefit from higher quality interactions nor did quantity of interactions pose

negative effects. The ways students from lower-income quartiles provide for their families during college (e.g., childcare assistance, financial support) did not show any signs of diverting these students attention away from their academic and social integration (Tinto, 1993), nor did they reveal students' ability to understand independent living (Wolf, 2011). Similarly, the different ways parents provide support to their children given their socioeconomic status did not reveal any significant differences in the students' integration.

Research Question 4. *How are changes in student-parent interactions associated with key indicators of fourth-year integration (academic integration, emotional well-being, and sense of belonging), controlling for student demographic characteristics, college experiences, and first-year student-parent interactions?*

Neither parental frequency measure was a significant predictor of any of the outcome measures in the same models; therefore, there is no evidence that change in frequency of interaction was predictive of fourth-year integration. Based on the lack of significant results, the hypothesis for this research question is rejected. However, given that there was only marginal change in students' communication patterns with either parent during college, as discussed in Chapter Four (see Table 4.1), it is not surprising that change in frequency of interaction would be unrelated to fourth-year integration.

While the evidence rejected my hypothesis, the spirit of my hypothesis was intended to support the notion that decreases in parental interactions are associated with students feeling more emotionally secure, better integrated academically, and more connected to the college or university. In other words, by the fourth year of college, students are on the journey towards leading a more self-authored life and are less reliant on their parents. Optimally, students are integrated into the college campus and interacting with multiple resources such as their peers and

professors, which all function as a catalyst for self-authorship (Baxter Magolda, 2001, 2004; Wawrzynski & Pizzolato, 2006). Maintaining close contact with parents, receiving parental support and reassurance does not have to come at the expense of not being fully integrated in the college experience, having an inability to make independent decisions, nor impeding a journey to self-authorship (Pizzolato and Hicklen, 2010). While there is no direct evidence to suggest this, the results of this study do imply that students are becoming autonomous even while maintaining close ties to their mothers and fathers.

Summary

Given the findings summarized above, the following conclusions about how interactions with parents may influence students' college adjustment and integration can be drawn. First, the data revealed a pattern of synchronous versus asynchronous communication. Students are gravitating towards more asynchronous modes of interaction (e.g., text messaging) that contain fewer words and do not require an immediate response. This trend may be a function of both advanced technology and the developmental period of the college years, during which students maintain close ties but are not necessarily dependent on substantive amounts of information exchanged. Interestingly, this also aligns with theoretical notions of attachment and separation. Text messages may lead to an open dialogue that lasts a long time, thus a form of attachment. However, the frequency of exchanges or when a student responds to a text may not be immediate; thus, the student places a form of separation by engaging at will.

Second, holding other characteristics and experiences constant, students' quality of interaction with mothers and fathers appears to have a small positive but statistically significant impact on key indicators of first-year adjustment; however, frequency of interaction or desire for more interaction with parents had a small negative but statistically significant impact on key

indicators of first-year adjustment. As students progress to the fourth-year, quality of interaction with fathers was a small but statistically significant predictor of only one of the key indicators of fourth-year integration: academic integration. While the data reveal that the parental role in students' integration becomes negligible by the fourth year, it is meaningful that students maintain continuous contact with their parents during college. Meanwhile, peers and professors remain a prominent agent of influence in the college experience and were the strongest predictors of adjustment and integration during college.

Finally, during the first year, to some extent the relationship between student-parent interactions and key indicators of adjustment were moderated by students' gender, race and ethnicity, and status as a first-generation college student. These patterns did not remain in the fourth year; rather, the relationship between parental communication patterns and integration functioned similarly across gender, race, and class. Furthermore, interesting patterns were revealed in terms of the intersections of race and class, which aligns with previous research that identified SES differences among AAPI students' transition to college. Within this study, the patterns for high-income students were very similar to those of the White/Caucasian and the East and South Asian group and, similarly, low-income family communication effects on integration were echoed in the other racial groups. This may be due to similar dynamics in low-income and non-White/Caucasian households, or it may be that most of the high-income households are White/Caucasian, and therefore reflect many of the same students. This aligns with research that found an intersection between Asian American Pacific Islander students and income status. Specifically, AAPI students from higher-income families received greater parental expectations and matriculated in college at higher rates than their peers from lower-income families, and the higher SES students sought out parental guidance at higher rates than the lower SES students

who turned to peers more so than parents (Museus and Vu, 2013).

Implications

The findings from this research can be useful for university administrators, family members, and (as discussed in a later section) researchers. In light of the statistically small role of parents in students' adjustment and integration as documented in this study, university administrators should consider evaluating their current practices and programming with respect to familial engagement. Recommendations of how to support familial engagement while ensuring positive student adjustment and integration are considered. These implications are discussed in the following two sections, first describing how the findings from this study can inform university administrators, and next detailing implications for family members' interactions with their students.

Implications for University Administrators

Based on the students' accounts of their interactions with their mothers and fathers, the findings from this study validate that students remain in close ties with their parents during the college years. For university administrators trying to figure out how to improve students' adjustment and integration, parents may be an ally. While this study revealed that the most significant predictors of positive adjustment and integration are peers and faculty, parents still play a role, albeit marginal, even after controlling the strong influence of peers and faculty. Thus, the fundamental questions for university administrators are (1) how to promote college student adjustment and integration, and (2) how to manage parents' desire for engagement.

On the one hand, it may behoove university administrators to create or expand physical space on campus for parents who are eager to get involved. Of course, this begs the question of whether space and resources dedicated to parents is appropriate. For instance, how would such

an experience impact the resources and time university administrators have to allocate to students and other priorities necessary to operate an institution of higher learning?

There is a national trend whereby postsecondary education institutions are designing offices to build or enhance parent and family programming and resources through booster clubs, parent orientation, and other leadership opportunities for parents (Donovan & McKelfresh, 2008; Merriman, 2006). Designating a place for parents on campus and dedicating resources to educating families can have additional benefits for college students. As parents gain a greater understanding of the college's intentions in facilitating students' development, they can support the work of student affairs by encouraging their students to utilize academic and wellness resources, participate in programs and support services, and seek out relationships with faculty. All are behaviors that positively predict healthy adjustment and integration. In addition, parents who are involved tend to be those who donate their resources and time. Although this study did not measure parent involvement, evidence from extant literature suggests that parents desire involvement (Wartman & Savage, 2008). Thus, it is possible for institutions to expand opportunities for parents to remain connected to their children, as well as to the institution, in a way that supports the needs of both students and institutions but does not involve overly intrusive or hovering behaviors.

As parents desire greater engagement in the students' experience and students generally welcome their support, the process to permit parents access to their children's educational records warrants examination. As discussed in Chapter Two, the federal government enacted FERPA in 1974 as a means of safeguarding students' privacy. Modifications to FERPA now allow students to grant parental figures' permission to receive notifications and access to their records. However, because the process by which students authorize parents to access their

educational records is contingent upon the institution's management of FERPA. More clarity in this process may be warranted. Specifically, improving communication about FERPA to parents and students may help quell anxiety and alleviate uncertainties about educational rights and privacy. This is important because the transition from K-12 to postsecondary education—typically lasting a brief three months—may feel abrupt for parents (Kiyama et al., 2015). Students' privacy rights under FERPA are activated when a student turns 18 or enrolls at a postsecondary education institution; at that point, institutions may only disclose information to parents with student consent. One step in improving communication about FERPA procedures is to align the reporting structure of FERPA administration and units dedicated to parent and family programming within the same administrative structure (i.e., student affairs) (Savage & Petree, 2013). Parent and family programming professionals are uniquely positioned to help parents and families understand how best to encourage student success and how FERPA fits into that. A structural realignment of the FERPA process could equip parents with the tools to empower their children to thoughtfully consider their privacy rights related to their college experience.

Next, given the relatively modest role of parents in promoting college students' adjustment and integration, campus administrators ought to remember what *does* matter most. For decades, college impact literature has extensively documented that interactions with peers and faculty are among the most impactful college experiences. As discussed in Chapter Two, college impact models situate peers and faculty members as influential agents of socialization within colleges (Astin, 1984; Pascarella, 1985; Tinto, 1987; 1993; Weidman, 1989).

To the extent that parent relationships matter, they function similar to those of faculty in that it is the student's perception of relationship quality (and not quantity or frequency) that bears greater value. Researchers have found that frequent interactions with faculty enhance students'

persistence and retention in colleges and universities (Hernandez, 2000; Jackson, Smith, & Hill, 2003; Pascarella & Terenzini, 2005), and more recent research points specifically to the importance of the quality of student-faculty interactions (Kim & Sax, 2014). In this vein, promoting positive peer quality and meaningful interactions with faculty may be a better investment of time and financial resources for university administrators.

In addition to being mindful of the nature of interactions between influencing agents, university administrators should be cognizant of the benefits and consequences that different types of relationships have on students' adjustment and integration and should consider how to cultivate more meaningful and supportive interactions between students and professors, with special attention on the unique needs of student populations (e.g., men, women, first-generation college students, racial and income groups).

Early Academic Opportunity Programs, summer bridge programs, and campus programs specializing in access and equity may want to reevaluate how they allocate scarce resources toward parent engagement. Thus, departments and programs should make certain that sufficient resources are devoted to promote interaction with family and done in collaboration with the institution's Parent and Family Programs office. Concerted planning would help to ensure that communication with parents is done in an accessible way embracing familial customs, in the preferred language of the family, and in a seamless manger between home and school (Halgunseth, Peterson, Stark, & Moodie, 2009; Kiyama & Harper, 2015). Encouraging professionals in these areas to help students facilitate relationships with their peers and faculty members may be a more opportune way for supporting adjustment and integration for the populations of students they serve. Indeed, as introduced in Chapter 1, the nature of parents' interactions with their students is influenced by the campus environment.

Implications for Parents and Families

This study presents both a bittersweet and a positive message to parents and families. Parents have had an enormous influence on their children in getting them to college and students' college experiences are a reflection of their upbringing. By the fourth year of college, even after controlling for interactions with peers and faculty, parents still exert some independent influence on the college trajectory. In addition, students' peer and faculty relationships are partly the result of how parents influenced their children when they were younger. Parents position their offspring to have relationships with peers and socialize them to interact with peers and faculty in college. While the role of parents is secondary to these other important interactions by the time students are completing college, administrators cannot discount the value of the association the parental role had with first-year adjustment and fourth-year integration. On the one hand, this finding suggests that students are finding their own ways to be successful and acclimate to campus life. On the other hand, it is highly likely that in raising their children parents are teaching them how to navigate the world and influencing their propensity to interact with peers in a productive way and seek out opportunities to interact with faculty. Ultimately, parents are shaping the way their children create the things that matter, which are relationships with peers and faculty. So, while college students may not need to stay too strongly connected to parents in order to become adjusted and integrated to college, they do appreciate talking to them, as indicated by the high degree of satisfaction students seem to have with the amount and quality of their interactions with their parents.

Parents and family members require guidance as to the most appropriate and beneficial amounts and forms of communication with their college-age children. In addition, it is important for parents, family members, and college students to explore together the proper balance between

providing support and being present in the college journey, but not crossing the line to becoming intrusive or hovering. University administrators can play a role in helping families identify encouraging and supportive behaviors that are appropriate given different cultural backgrounds. Most institutions have offices such as Parent and Family Programs that are trained to equip parents and families with the tools necessary to support their student's academic success and empower them to take personal responsibility for their social and academic decisions.

Limitations and Directions for Future Research

While this study provides new insights into the relationship between student-parent interactions, adjustment and integration, there are several limitations that must also be considered. This section will address these limitations and provide suggestions for future research.

First, the presence of differences in the role of parents across students' background characteristics was less than what was expected, which may be a product of the limited sample of racial and ethnic groups. As discussed in Chapter Three, the unique racial and ethnic demographics at the data collection site posed challenges in obtaining robust numbers of African American/Black and Native American racial groups to participate in the study. The first wave of the data collection had limited racial diversity and then there was natural attrition in the follow-up survey. Given the lack of diversity with respect to certain racial groups, future research needs to collect more data from a larger and more diverse sample of institutions in order to have a more representative picture of how the association between student-parent interactions and college outcomes is moderated by students' background characteristics. Indeed, other research has clearly demonstrated how indicators related to race, ethnicity and class can shape the way in which students benefit from college (Brand & Xie, 2010).

By controlling for gender, race and ethnicity, and class separately, interactions within these categories were not captured. A more robust sample would also enable an examination of the intersectionality of students' background characteristics and differences across parental configurations. Intersectionality theory can be a useful framework for examining how the salience of how multiple overlapping identities support or impede students' adjustment and integration (Museus, 2011; Nunez, 2014; Ruiz & Hurtado, 2015; Yoshikawa, Mistry, & Wang, in press). With respect to diverse family structures, while participants were presented the option of indicating a non-maternal or non-paternal parental figure (e.g., adopted parents, legal guardians, same-sex parent), an insufficient number of responses to these categories prevented them from being included in the analysis. Further this study combined biological with step-parents and they do not exert the same influence. Future research should disaggregate parent types.

Second, the data was collected from students living in college residence halls at a single institution, and therefore limits generalizability. By missing students who choose to live at home or need to live at home fails to capture students who may have the most communication with parents. With that said, the conclusions drawn from the study are still applicable to large public universities, and to students fitting the profile of the ones studied in this research. Future research should reproduce this study across a variety of institutional types in order to assess the results more broadly.

Third, the survey instruments measured two static points in time, the first and fourth year, and did not capture the full range of behaviors over the full time interval of college (e.g., second and third years). This limits the ability to assess the full dynamics of change over time. To the extent that there were net changes between the first and fourth year, this study cannot speak to

whether there was a consistent increase or decrease over time or whether communication fluctuated as a result of situations and milestones unique to the first and fourth years of college (i.e., these are higher stress times as students are acclimating to or culminating their college experience).

Additionally, the analytic techniques performed prohibit causality from being determined. Collecting data at more time points would help to determine chronology and help address causality. Further, future renditions of this study might consider Structural Equation Modeling in order to understand the nature of direct and indirect effects of parental communication and help to draw tentative causal conclusions.

In addition, a variety of other methods might capture more about the content of the interaction and who is initiating the conversation (e.g., use of time diary or other qualitative methods). Qualitative methods would also help to delve into the unique experiences and relationships across gender, racial, and class groups. These additional methodologies would also help to capture parents' perceptions of their interactions with their students and account for the fact that this study was limited to the perspectives of students. This study did not use objective measures by students or parents such as tracking the exact times of communication in a calendar and evaluating the quality of the interaction in the moment; rather, the measures consisted of students' self-reported reflections of the communication from one point in time. The lack of parent perspective may reflect reporter bias in that students may recall, interpret or perceive their communication with parents differently than the parents would.

Of note, there were limitations within the parent measures. For example, as alluded to in Chapter Four, the quality terms may better represent the view that high socioeconomic status students have of their parental communication, rather than being a measure of objective

communication quality. These measures may not equally nor fairly represent all students' perception of quality. In addition, the terms were very focused on how the communication related to the student and their activities on campus, rather than being exhaustive of the type of content that might be more common among low-income or first-generation families, where the communication may be more focused on issues relating to the family home. For this, and potentially other reasons, students may not have interpreted each of the quality descriptors in the same way, leading to some additional uncertainty in coding those responses as positive or negative. This limitation could be addressed by considering a ranking of the quality measures or examining them individually, rather than aggregating them into a quantitative measure. This would, however, require a much larger sample than was available for the current study. The adjectives listed may also not have been exhaustive of how different groups (e.g., first-generation college students) describe their communication. Ideally, a qualitative study sampling a variety of students across racial and class dimensions would determine an optimal set of common descriptors to be used in subsequent survey research of the topic.

Also, the study did not provide information on the content of communication; therefore, frequency of communication cannot be assumed as a hovering behavior and associated with impeding independent decision–making. It might be the case that interactions are frequent but very casual. Without having knowledge of the content of the communication, the intent and initiator of the communication is also unknown. Qualitative analysis can help to probe more deeply into the purpose and intent of the communication. Further, it is important to note that interactions with mothers may not be devoid of father input (and vice versa). While one of the benefits of this study was that I analyzed the parents separately, the reality is that in some cases

interaction with one parent may be intertwined with another parent (e.g., when a student is on the phone with mother and dad is offering commentary from the side).

The last limitation pertaining to the parent measures relates to the options of mode that are provided on the survey. Because technology evolves quickly (even as fast as between the first and fourth years of this study), I considered modifying the modes of communication on the follow-up survey to even better reflect current day practices (e.g., text messaging can now also be done within online social networks). However, in order to maintain consistency and enable measurement of change over time, I chose to keep the measures uniform at both time points.

In addition, while this study did not directly test the psychological theories, student development theories or college impact models used to frame this study, this study recommends identifying an explicitly continuous role for parents and family members in college impact models. As mentioned in Chapter Two, while parents and family members are referenced in many college impact models, they are often considered as precollege factors or mentioned in broader terms. For example, Nora et al.'s (2005) Student/Institutional Engagement model encompasses a greater range of the familial role by accounting for family encouragement and support and family responsibilities; however, these roles are considered to be precollege factors and environment pull factors and are thus placed in the model as inputs. Familial support and responsibilities have continued value throughout the college experience (Nora et al., 2005). In addition, parents and family members are implied in Pascarella's (1985) Model of Student Learning and Cognitive Development as an "agent of socialization," thereby placing them within a wider category that also implies interactions with peers and professors. On the other hand, Weidman's (1989) Model of Undergraduate Socialization explicitly references parental socialization and the role parents play in career orientation and aspirations. Future research

should more specifically address where familial influence on students' college experiences belongs in college impact models by conducting rigorous studies with diverse samples and multiple time points that incorporate family traits and behaviors both upon matriculation and during the college years.

Finally, time lags in peer-review publication limit the study's ability to draw conclusions based on present day reality. Fast-growing technology is transforming the way students interact with their parents at rates that outpace the release of research on these topics. Therefore, it is important to be mindful of the delay between peer-reviewed research and research on current topics.

Conclusion

Previous research on the parental role in college student adjustment and integration presents a theoretical tension as to the extent of parents' presence in the past two decades between parents and college students is akin to attachment, and that remaining attached to students hinders individuation. On the other hand, while separation may be beneficial for some students to form an independent identity at college, this process may alienate students from their cultural practices and ties to family. In an effort to shift the image of parents away from hovering over the children's affairs and impeding growth to embracing parents as partners in the college experience, colleges and universities are invested in understanding the communication dynamic between students and their parents (Donovan & McKelfresh, 2008).

In light of this shift, there is increasing focus in the higher education literature on the role of parents during the college years. While some studies have explored the frequency and nature of students' interactions with their parents, few studies have examined how the student-parent relationship may contribute to positive or negative college adjustment and integration. Thus, this

study provides insight into this question.

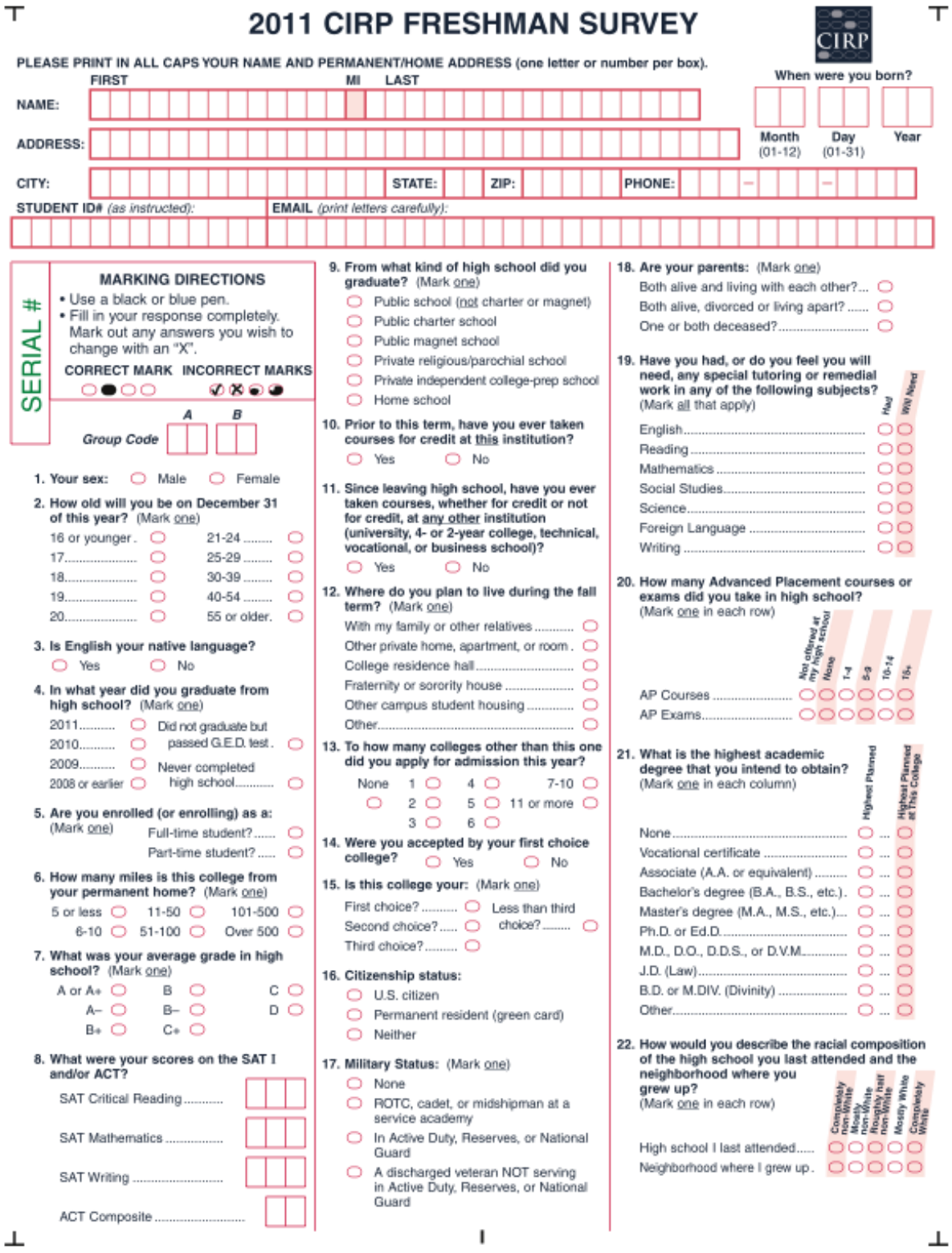
Specifically, this study found that students' interactions with parents do have some positive implications on their adjustment and integration, even after controlling for other pre-college and college experiences and traits. As such, the findings led to suggestions for how university administrators can harness this effect by making an institutional commitment to families and designing outreach efforts for parents to have a defined role in the college experience and opportunities to learn about the college's practices, programs, and services. Further, suggestions for future research were provided in order to continue to expand this study's data collection efforts and assess these questions with a more robust student sample and more diverse family configurations.

Considering the findings of this study, it is clear that students' interactions with parents have value during the college years, but they do not appear to be interfering with their development. More importantly, peers and faculty were shown to be much stronger influences in students' adjustment and integration. In light of these findings, college and universities should implement policies that regard parents as stakeholders and partners in their students' educational trajectory, while emphasizing that the direct parental influence on student well-being may be more marginal than some believe.

APPENDICES

Appendix A: Survey Instruments

Appendix A-1: 2011 CIRP Freshman Survey



2011 CIRP FRESHMAN SURVEY

CIRP

PLEASE PRINT IN ALL CAPS YOUR NAME AND PERMANENT/HOME ADDRESS (one letter or number per box).

NAME: FIRST MI LAST

ADDRESS:

CITY: STATE: ZIP: PHONE: – –

STUDENT ID# *(as instructed)*: EMAIL *(print letters carefully)*:

When were you born? Month (01-12) Day (01-31) Year

SERIAL #

MARKING DIRECTIONS
- Use a black or blue pen.
- Fill in your response completely. Mark out any answers you wish to change with an "X".

CORRECT MARK INCORRECT MARKS

Group Code A B

1. **Your sex:** Male Female

2. **How old will you be on December 31 of this year?** (Mark one)
16 or younger, 17, 18, 19, 20, 21-24, 25-29, 30-39, 40-54, 55 or older.

3. **Is English your native language?** Yes No

4. **In what year did you graduate from high school?** (Mark one)
2011, 2010, 2009, 2008 or earlier, Did not graduate but passed G.E.D. test, Never completed high school

5. **Are you enrolled (or enrolling) as a:** (Mark one) Full-time student? Part-time student?

6. **How many miles is this college from your permanent home?** (Mark one)
5 or less, 6-10, 11-50, 51-100, 101-500, Over 500

7. **What was your average grade in high school?** (Mark one)
A or A+, A–, B+, B, B–, C+, C, D

8. **What were your scores on the SAT I and/or ACT?**
SAT Critical Reading, SAT Mathematics, SAT Writing, ACT Composite

9. **From what kind of high school did you graduate?** (Mark one)
Public school (not charter or magnet), Public charter school, Public magnet school, Private religious/parochial school, Private independent college-prep school, Home school

10. **Prior to this term, have you ever taken courses for credit at this institution?** Yes No

11. **Since leaving high school, have you ever taken courses, whether for credit or not for credit, at any other institution (university, 4- or 2-year college, technical, vocational, or business school)?** Yes No

12. **Where do you plan to live during the fall term?** (Mark one)
With my family or other relatives, Other private home, apartment, or room, College residence hall, Fraternity or sorority house, Other campus student housing, Other

13. **To how many colleges other than this one did you apply for admission this year?**
None, 1, 2, 3, 4, 5, 6, 7-10, 11 or more

14. **Were you accepted by your first choice college?** Yes No

15. **Is this college your:** (Mark one)
First choice?, Second choice?, Third choice?, Less than third choice?

16. **Citizenship status:**
U.S. citizen, Permanent resident (green card), Neither

17. **Military Status:** (Mark one)
None, ROTC, cadet, or midshipman at a service academy, In Active Duty, Reserves, or National Guard, A discharged veteran NOT serving in Active Duty, Reserves, or National Guard

18. **Are your parents:** (Mark one)
Both alive and living with each other?, Both alive, divorced or living apart?, One or both deceased?

19. **Have you had, or do you feel you will need, any special tutoring or remedial work in any of the following subjects?** (Mark all that apply)

	Had	Will Need
English		
Reading		
Mathematics		
Social Studies		
Science		
Foreign Language		
Writing		

20. **How many Advanced Placement courses or exams did you take in high school?** (Mark one in each row)

	Not offered at my high school	None	1-4	5-9	10-14	15+
AP Courses						
AP Exams						

21. **What is the highest academic degree that you intend to obtain?** (Mark one in each column)

	Highest Planned	Highest Planned at This College
None		
Vocational certificate		
Associate (A.A. or equivalent)		
Bachelor's degree (B.A., B.S., etc.)		
Master's degree (M.A., M.S., etc.)		
Ph.D. or Ed.D.		
M.D., D.O., D.D.S., or D.V.M.		
J.D. (Law)		
B.D. or M.DIV. (Divinity)		
Other		

22. **How would you describe the racial composition of the high school you last attended and the neighborhood where you grew up?** (Mark one in each row)

	Completely non-White	Mostly non-White	Roughly half non-White	Mostly White	Completely White
High school I last attended					
Neighborhood where I grew up					

23. How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from each of the sources listed below? (Mark one answer for each possible source)

	None	Less than $1,000	$1,000 to 2,999	$3,000 to 5,999	$6,000 to 9,999	$10,000+
Family resources (parents, relatives, spouse, etc.)	○	○	○	○	○	○
My own resources (savings from work, work-study, other income)	○	○	○	○	○	○
Aid which need not be repaid (grants, scholarships, military funding, etc.)	○	○	○	○	○	○
Aid which must be repaid (loans, etc.)	○	○	○	○	○	○
Other than above	○	○	○	○	○	○

24. What is your best estimate of your parents' total income last year? Consider income from all sources before taxes. (Mark one)

○ Less than $10,000	○ $50,000-59,999
○ $10,000-14,999	○ $60,000-74,999
○ $15,000-19,999	○ $75,000-99,999
○ $20,000-24,999	○ $100,000-149,999
○ $25,000-29,999	○ $150,000-199,999
○ $30,000-39,999	○ $200,000-249,999
○ $40,000-49,999	○ $250,000 or more

25. Do you have any concern about your ability to finance your college education? (Mark one)

- None (I am confident that I will have sufficient funds) ○
- Some (but I probably will have enough funds) ○
- Major (not sure I will have enough funds to complete college) ○

26. Current religious preference: (Mark one in each column)

	Yours	Father's	Mother's
Baptist	Ⓨ	Ⓕ	Ⓜ
Buddhist	Ⓨ	Ⓕ	Ⓜ
Church of Christ	Ⓨ	Ⓕ	Ⓜ
Eastern Orthodox	Ⓨ	Ⓕ	Ⓜ
Episcopalian	Ⓨ	Ⓕ	Ⓜ
Hindu	Ⓨ	Ⓕ	Ⓜ
Jewish	Ⓨ	Ⓕ	Ⓜ
LDS (Mormon)	Ⓨ	Ⓕ	Ⓜ
Lutheran	Ⓨ	Ⓕ	Ⓜ
Methodist	Ⓨ	Ⓕ	Ⓜ
Muslim	Ⓨ	Ⓕ	Ⓜ
Presbyterian	Ⓨ	Ⓕ	Ⓜ
Quaker	Ⓨ	Ⓕ	Ⓜ
Roman Catholic	Ⓨ	Ⓕ	Ⓜ
Seventh Day Adventist	Ⓨ	Ⓕ	Ⓜ
United Church of Christ/Congregational	Ⓨ	Ⓕ	Ⓜ
Other Christian	Ⓨ	Ⓕ	Ⓜ
Other Religion	Ⓨ	Ⓕ	Ⓜ
None	Ⓨ	Ⓕ	Ⓜ

27. For the activities below, indicate which ones you did during the past year. If you engaged in an activity frequently, mark Ⓕ. If you engaged in an activity one or more times, but not frequently, mark Ⓞ (Occasionally). Mark Ⓝ (Not at all) if you have not performed the activity during the past year. (Mark one for each item)

	Frequently	Occasionally	Not at All
Attended a religious service	Ⓕ	Ⓞ	Ⓝ
Was bored in class	Ⓕ	Ⓞ	Ⓝ
Demonstrated for a cause (e.g., boycott, rally, protest)	Ⓕ	Ⓞ	Ⓝ
Tutored another student	Ⓕ	Ⓞ	Ⓝ
Studied with other students	Ⓕ	Ⓞ	Ⓝ
Was a guest in a teacher's home	Ⓕ	Ⓞ	Ⓝ
Smoked cigarettes	Ⓕ	Ⓞ	Ⓝ
Drank beer	Ⓕ	Ⓞ	Ⓝ
Drank wine or liquor	Ⓕ	Ⓞ	Ⓝ
Felt overwhelmed by all I had to do	Ⓕ	Ⓞ	Ⓝ
Felt depressed	Ⓕ	Ⓞ	Ⓝ
Performed volunteer work	Ⓕ	Ⓞ	Ⓝ
Asked a teacher for advice after class	Ⓕ	Ⓞ	Ⓝ
Voted in a student election	Ⓕ	Ⓞ	Ⓝ
Socialized with someone of another racial/ethnic group	Ⓕ	Ⓞ	Ⓝ
Came late to class	Ⓕ	Ⓞ	Ⓝ
Used the Internet for research or homework	Ⓕ	Ⓞ	Ⓝ
Performed community service as a part of a class	Ⓕ	Ⓞ	Ⓝ
Discussed religion	Ⓕ	Ⓞ	Ⓝ
Discussed politics	Ⓕ	Ⓞ	Ⓝ
Worked on a local, state, or national political campaign	Ⓕ	Ⓞ	Ⓝ
Skipped school/class	Ⓕ	Ⓞ	Ⓝ
Publicly communicated my opinion about a cause (e.g., blog, email, petition)	Ⓕ	Ⓞ	Ⓝ
Helped raise money for a cause or campaign	Ⓕ	Ⓞ	Ⓝ
Fell asleep in class	Ⓕ	Ⓞ	Ⓝ
Failed to complete homework on time	Ⓕ	Ⓞ	Ⓝ

28. Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. (Mark one in each row)

	Highest 10%	Above Average	Average	Below Average	Lowest 10%
Academic ability	○	○	○	○	○
Artistic ability	○	○	○	○	○
Competitiveness	○	○	○	○	○
Computer skills	○	○	○	○	○
Cooperativeness	○	○	○	○	○
Creativity	○	○	○	○	○
Drive to achieve	○	○	○	○	○
Emotional health	○	○	○	○	○
Leadership ability	○	○	○	○	○
Mathematical ability	○	○	○	○	○
Physical health	○	○	○	○	○
Popularity	○	○	○	○	○
Public speaking ability	○	○	○	○	○
Self-confidence (intellectual)	○	○	○	○	○
Self-confidence (social)	○	○	○	○	○
Self-understanding	○	○	○	○	○
Spirituality	○	○	○	○	○
Understanding of others	○	○	○	○	○
Writing ability	○	○	○	○	○

29. Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. (Mark one for each item)

	Highest 10%	Above Average	Average	Below Average	Lowest 10%
Ability to see the world from someone else's perspective	○	○	○	○	○
Tolerance of others with different beliefs	○	○	○	○	○
Openness to having my own views challenged	○	○	○	○	○
Ability to discuss and negotiate controversial issues	○	○	○	○	○
Ability to work cooperatively with diverse people	○	○	○	○	○

30. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Junior high/Middle school or less	○	○
Some high school	○	○
High school graduate	○	○
Postsecondary school other than college	○	○
Some college	○	○
College degree	○	○
Some graduate school	○	○
Graduate degree	○	○

31. How often in the past year did you? (Mark one for each item)

	Frequently	Occasionally	Not at All
Ask questions in class	Ⓕ	Ⓞ	Ⓝ
Support your opinions with a logical argument	Ⓕ	Ⓞ	Ⓝ
Seek solutions to problems and explain them to others	Ⓕ	Ⓞ	Ⓝ
Revise your papers to improve your writing	Ⓕ	Ⓞ	Ⓝ
Evaluate the quality or reliability of information you received	Ⓕ	Ⓞ	Ⓝ
Take a risk because you feel you have more to gain	Ⓕ	Ⓞ	Ⓝ
Seek alternative solutions to a problem	Ⓕ	Ⓞ	Ⓝ
Look up scientific research articles and resources	Ⓕ	Ⓞ	Ⓝ
Explore topics on your own, even though it was not required for a class	Ⓕ	Ⓞ	Ⓝ
Accept mistakes as part of the learning process	Ⓕ	Ⓞ	Ⓝ
Seek feedback on your academic work	Ⓕ	Ⓞ	Ⓝ
Take notes during class	Ⓕ	Ⓞ	Ⓝ
Work with other students on group projects	Ⓕ	Ⓞ	Ⓝ
Integrate skills and knowledge from different sources and experiences	Ⓕ	Ⓞ	Ⓝ

32. Mark only three responses, one in each column.

(M) Your mother's occupation
(F) Your father's occupation
(Y) Your probable career occupation

	Y	F	M
Accountant or actuary	Y	F	M
Actor or entertainer	Y	F	M
Architect or urban planner	Y	F	M
Artist	Y	F	M
Business (clerical)	Y	F	M
Business executive (management, administrator)	Y	F	M
Business owner or proprietor	Y	F	M
Business salesperson or buyer	Y	F	M
Clergy (minister, priest)	Y	F	M
Clergy (other religious)	Y	F	M
Clinical psychologist	Y	F	M
College administrator/staff	Y	F	M
College teacher	Y	F	M
Computer programmer or analyst	Y	F	M
Conservationist or forester	Y	F	M
Dentist (including orthodontist)	Y	F	M
Dietitian or nutritionist	Y	F	M
Engineer	Y	F	M
Farmer or rancher	Y	F	M
Foreign Service worker (including diplomat)	Y	F	M
Homemaker (full-time)	Y	F	M
Interior decorator (including designer)	Y	F	M
Lab technician or hygienist	Y	F	M
Law enforcement officer	Y	F	M
Lawyer (attorney) or judge	Y	F	M
Military service (career)	Y	F	M
Musician (performer, composer)	Y	F	M
Nurse	Y	F	M
Optometrist	Y	F	M
Pharmacist	Y	F	M
Physician	Y	F	M
Policymaker/Government	Y	F	M
School counselor	Y	F	M
School principal or superintendent	Y	F	M
Scientific researcher	Y	F	M
Social, welfare, or recreation worker	Y	F	M
Therapist (physical, occupational, speech)	Y	F	M
Teacher or administrator (elementary)	Y	F	M
Teacher or administrator (secondary)	Y	F	M
Veterinarian	Y	F	M
Writer or journalist	Y	F	M
Skilled trades	Y	F	M
Laborer (unskilled)	Y	F	M
Semi-skilled worker	Y	F	M
Unemployed	Y	F	M
Other	Y	F	M
Undecided	Y		

33. Are you: (Mark all that apply)

- White/Caucasian
- African American/Black
- American Indian/Alaska Native
- Asian American/Asian
- Native Hawaiian/Pacific Islander
- Mexican American/Chicano
- Puerto Rican
- Other Latino
- Other

34. Mark one in each row:

(1) Disagree Strongly
(2) Disagree Somewhat
(3) Agree Somewhat
(4) Agree Strongly

	4	3	2	1
Abortion should be legal	4	3	2	1
Marijuana should be legalized	4	3	2	1
Racial discrimination is no longer a major problem in America	4	3	2	1
Same-sex couples should have the right to legal marital status	4	3	2	1
Federal military spending should be increased	4	3	2	1
Undocumented immigrants should be denied access to public education	4	3	2	1
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	4	3	2	1
A national health care plan is needed to cover everybody's medical costs	4	3	2	1
Addressing global warming should be a federal priority	4	3	2	1
The chief benefit of a college education is that it increases one's earning power	4	3	2	1

35. How would you characterize your political views? (Mark one)

- Far left
- Liberal
- Middle-of-the-road
- Conservative
- Far right

36. In deciding to go to college, how important to you was each of the following reasons?
(Mark one answer for each possible reason)

	Very Important	Somewhat Important	Not Important
To be able to get a better job	V	S	N
To gain a general education and appreciation of ideas	V	S	N
To make me a more cultured person	V	S	N
To be able to make more money	V	S	N
To learn more about things that interest me	V	S	N
To get training for a specific career	V	S	N
To prepare myself for graduate or professional school	V	S	N

37. During your last year in high school, how much time did you spend during a typical week doing the following activities?

Hours per week:	None	Less than 1 hour	1-2	3-5	6-10	11-15	16-20	Over 20
Studying/homework								
Socializing with friends								
Talking with teachers outside of class								
Exercise or sports								
Partying								
Working (for pay)								
Volunteer work								
Student clubs/groups								
Watching TV								
Household/childcare duties								
Reading for pleasure								
Playing video/computer games								
Online social networks (Myspace, Facebook, etc.)								

38. Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here?
(Mark one answer for each possible reason)

	Very Important	Somewhat Important	Not Important
My parents wanted me to come here	V	S	N
My relatives wanted me to come here	V	S	N
My teacher advised me	V	S	N
This college has a very good academic reputation	V	S	N
This college has a good reputation for its social activities	V	S	N
I was offered financial assistance	V	S	N
The cost of attending this college	V	S	N
High school counselor advised me	V	S	N
Private college counselor advised me	V	S	N
I wanted to live near home	V	S	N
Not offered aid by first choice	V	S	N
Could not afford first choice	V	S	N
This college's graduates gain admission to top graduate/professional schools	V	S	N
This college's graduates get good jobs	V	S	N
I was attracted by the religious affiliation/orientation of the college	V	S	N
I wanted to go to a school about the size of this college	V	S	N
Rankings in national magazines	V	S	N
Information from a website	V	S	N
I was admitted through an Early Action or Early Decision program	V	S	N
The athletic department recruited me	V	S	N
A visit to the campus	V	S	N
Ability to take online courses	V	S	N

39. The current economic situation significantly affected my college choice:
(Mark one)

- Agree Strongly
- Agree Somewhat
- Disagree Somewhat
- Disagree Strongly

40. Below is a list of different undergraduate major fields grouped into general categories. Mark only one oval to indicate your probable field of study.

ARTS AND HUMANITIES
- Art, fine and applied (1)
- English (language and literature) (2)
- History (3)
- Journalism (4)
- Language and Literature (except English) (5)
- Music (6)
- Philosophy (7)
- Speech (8)
- Theatre or Drama (9)
- Theology or Religion (10)
- Other Arts and Humanities (11)

BIOLOGICAL SCIENCE
- Biology (general) (12)
- Biochemistry or Biophysics (13)
- Botany (14)
- Environmental Science (15)
- Marine (Life) Science (16)
- Microbiology or Bacteriology (17)
- Zoology (18)
- Other Biological Science (19)

BUSINESS
- Accounting (20)
- Business Admin. (general) (21)
- Finance (22)
- International Business (23)
- Marketing (24)
- Management (25)
- Secretarial Studies (26)
- Other Business (27)

EDUCATION
- Business Education (28)
- Elementary Education (29)
- Music or Art Education (30)
- Physical Education or Recreation (31)
- Secondary Education (32)
- Special Education (33)
- Other Education (34)

ENGINEERING
- Aeronautical or Astronautical Eng (35)
- Civil Engineering (36)
- Chemical Engineering (37)
- Computer Engineering (38)
- Electrical or Electronic Engineering (39)
- Industrial Engineering (40)
- Mechanical Engineering (41)
- Other Engineering (42)

PHYSICAL SCIENCE
- Astronomy (43)
- Atmospheric Science (incl. Meteorology) (44)
- Chemistry (45)
- Earth Science (46)
- Marine Science (incl. Oceanography) (47)
- Mathematics (48)
- Physics (49)
- Other Physical Science (50)

PROFESSIONAL
- Architecture or Urban Planning (51)
- Family & Consumer Sciences (52)
- Health Technology (medical, dental, laboratory) (53)
- Library or Archival Science (54)
- Medicine, Dentistry, Veterinary Medicine (55)
- Nursing (56)
- Pharmacy (57)
- Therapy (occupational, physical, speech) (58)
- Other Professional (59)

SOCIAL SCIENCE
- Anthropology (60)
- Economics (61)
- Ethnic Studies (62)
- Geography (63)
- Political Science (gov't., international relations) (64)
- Psychology (65)
- Public Policy (66)
- Social Work (67)
- Sociology (68)
- Women's Studies (69)
- Other Social Science (70)

TECHNICAL
- Building Trades (71)
- Data Processing or Computer Programming (72)
- Drafting or Design (73)
- Electronics (74)
- Mechanics (75)
- Other Technical (76)

OTHER FIELDS
- Agriculture (77)
- Communications (78)
- Computer Science (79)
- Forestry (80)
- Kinesiology (81)
- Law Enforcement (82)
- Military Science (83)
- Other Field (84)
- Undecided (85)

41. Please indicate the importance to you personally of each of the following: (Mark one for each item)

(N) Not Important (S) Somewhat Important (V) Very Important (E) Essential

	E	V	S	N
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority in my field	E	V	S	N
Obtaining recognition from my colleagues for contributions to my special field	E	V	S	N
Influencing the political structure	E	V	S	N
Influencing social values	E	V	S	N
Raising a family	E	V	S	N
Being very well off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, novels, etc.)	E	V	S	N
Creating artistic works (painting, sculpture, etc.)	E	V	S	N
Becoming successful in a business of my own	E	V	S	N
Becoming involved in programs to clean up the environment	E	V	S	N
Developing a meaningful philosophy of life	E	V	S	N
Participating in a community action program	E	V	S	N
Helping to promote racial understanding	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Becoming a community leader	E	V	S	N
Improving my understanding of other countries and cultures	E	V	S	N
Adopting "green" practices to protect the environment	E	V	S	N

42. What is your best guess as to the chances that you will: (Mark one for each item)

(N) No Chance (L) Very Little Chance (S) Some Chance (V) Very Good Chance

	V	S	L	N
Change major field?	V	S	L	N
Change career choice?	V	S	L	N
Participate in student government?	V	S	L	N
Get a job to help pay for college expenses?	V	S	L	N
Work full-time while attending college?	V	S	L	N
Join a social fraternity or sorority?	V	S	L	N
Play club, intramural, or recreational sports?	V	S	L	N
Play intercollegiate athletics (e.g., NCAA or NAIA-sponsored)?	V	S	L	N
Make at least a "B" average?	V	S	L	N
Need extra time to complete your degree requirements?	V	S	L	N
Participate in student protests or demonstrations?	V	S	L	N
Transfer to another college before graduating?	V	S	L	N
Be satisfied with your college?	V	S	L	N
Participate in volunteer or community service work?	V	S	L	N
Seek personal counseling?	V	S	L	N
Communicate regularly with your professors?	V	S	L	N
Socialize with someone of another racial/ethnic group?	V	S	L	N
Participate in student clubs/groups?	V	S	L	N
Participate in a study abroad program?	V	S	L	N
Have a roommate of a different race/ethnicity?	V	S	L	N
Discuss course content with students outside of class?	V	S	L	N
Work on a professor's research project?	V	S	L	N
Take courses from more than one college simultaneously?	V	S	L	N

The remaining ovals are provided for questions specifically designed by your college rather than the Higher Education Research Institute. If your college has chosen to use the ovals, please observe carefully the supplemental directions given to you.

43.	A B C D E	47.	A B C D E	51.	A B C D E	55.	A B C D E	59.	A B C D E
44.	A B C D E	48.	A B C D E	52.	A B C D E	56.	A B C D E	60.	A B C D E
45.	A B C D E	49.	A B C D E	53.	A B C D E	57.	A B C D E	61.	A B C D E
46.	A B C D E	50.	A B C D E	54.	A B C D E	58.	A B C D E	62.	A B C D E

THANK YOU!

Data Recognition Corp.-6G1144-11658-54321

Appendix A-2: 2012 Residential Life Survey

Rate the Hill – Spring Residential Survey 2012

Your participation is encouraged, but is completely voluntary. We estimate the survey will take about 15 minutes to complete. Your responses are completely confidential. Please read the Research Information Sheet before continuing.
By submitting the survey, you agree that you have read the Research Information Sheet, and are ready to take the survey.

Thanks for participating in the Spring Edition of the Rate the Hill Survey. The survey is designed to provide you with a chance to comment on your experiences living on campus, and to assess the extent to which we here in Residential Life are providing programs and services that meet your needs and our goals. Our goals can be found on our website: www.orl.ucla.edu (what we do section). This year we are also partnering with researchers in the UCLA Graduate School of Education & Information Studies to better understand how your interactions with your parents/guardians are shaping your university experience.

(Section 1) ORL Goal: Support Student Academic Success

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

1. Living on campus has helped me learn new strategies to achieve my academic goals
2. I engage in intellectual discussions with other residents
3. I am able to find adequate space for quiet or group study
4. Living on campus has helped me plan for my future career after graduation
5. I would like to have more opportunities on the Hill to engage with faculty members
6. I would like to have more opportunities to see academic counselors on the hill

Living on campus, how often do you:

Responses: Frequently, Occasionally, Never

7. Have discussions with other students that have helped you gain new life perspectives
8. Encounter noise levels that interfere with your ability to study or sleep
9. Stay around campus over the weekend (i.e., not going home, not traveling)
10. Discuss course content outside of class
11. Attend programs or activities that meet your academic interests

To what extent are you aware of this resource:

Responses: I have used this resource; I know about, but have not used this resource; I do not know about this resource;

12. Computer Labs / Learning Centers on the Hill (Covel, Rieber or De Neve)
13. Group Study Rooms on the Hill (Rieber Hall Rooms 147 & 149)
14. Proctored study halls during finals weeks (Covel 3rd Floor & De Neve Plaza Rooms)
15. ResTV Channel 22
16. Scholarship Resource Center in Covel Commons

17. The ORL “Places to Study” Google map
18. Undergraduate Writing Center in Rieber Hall
19. Academic department/school counselors for academic counseling
20. Academic counseling from the College of Letters & Science (CAC, Honors, AAP, Athletics, etc.)

(Section 2) ORL Goal: Create Safe Environments

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

1. I have my own personal earthquake/disaster emergency kit in my room *(restricted to agree/disagree only)*
2. I do **NOT** know what to do in case of an earthquake
3. I know whom to contact if I have an issue or question about the construction on the Hill
4. Residents in my community do **NOT** confront or report safety & security concerns
5. I know how to report a safety & security concern
6. Living on campus has helped me better manage stress
7. I understand the importance of following University and On Campus Housing policies (Rules for Residents)
8. Living on Campus has helped me learn how to resolve conflicts more effectively
9. I know what UCLA’s Principles of Community are

(Section 3) ORL Goal: Foster Students’ Personal Growth and Responsible Citizenship

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

1. I know what to do when I’m sick (i.e. how to treat myself, when to get medical attention)
2. I have enough privacy
3. I feel that my residential community welcomes diversity and promotes tolerance
4. Living on campus has helped me to be able to discuss controversial topics
5. I know at least one campus resource I can use if I’m having personal problems
6. My roommate(s) and I are able to work out our disagreements
7. My current roommate(s) and I get a long

Responses: Highest 10%, Above average, Average, Below average, Lowest 10%

8. Compared with the average person your age, how would you rate your EMOTIONAL HEALTH?
9. Compared with the average person your age how would you rate your PHYSICAL HEALTH?
10. Compared with the average person your age, how would you rate your ASSERTIVENESS?
11. Compared with the average person your age, how would you rate your CONCERN FOR THE WELLBEING OF OTHERS?

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

12. Living on campus has helped me better understand myself

13. Living on campus has helped me understand the perspectives of others
14. Living on campus has helped me learn to assert my personal rights in my community
15. Living on campus has helped me think more critically and analytically
16. Living on campus has helped me to exercise regularly
17. Living on campus has helped me make healthy eating choices

During this academic year, how easy has it been for you to:

Responses: Very easy, Somewhat easy, Somewhat difficult, Very difficult

18. Utilize campus resources (e.g., academic advising, bookstore, library, financial aid, health center, housing/ORL, parking)
19. Develop close friendships with other students
20. Understand what your professors expect of you academically
21. Develop effective study skills
22. Adjust to the academic demands of college
23. Manage your time effectively
24. Get to know faculty
25. Manage your daily responsibilities (e.g., laundry, purchasing personal items, keeping room clean)
26. Keep track of your financial resources and expenses

During this academic year, how often have you felt:

Responses: Frequently, Occasionally, Not at all

27. Depressed
28. Isolated from campus
29. Lonely
30. Homesick
31. Unsafe
32. Overwhelmed by all I had to do

(Section 4) Goal: Develop Strong Communities

Part of the way the Office of Residential Life accomplishes its mission is through community building as well as programs (activities/events or passive dissemination of information) organized by ORL staff and students. Please provide your feedback on your experiences with community living and engaging in programs.

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

1. I feel a sense of community [on my floor/in my house/building]
2. It has been DIFFICULT for me to get to know the neighbors in my residential community
3. Living on campus has helped me feel a part of UCLA
4. Living on campus has helped me become more aware of opportunities to engage in community service work
5. I have formed meaningful friendships in my community
6. I feel a sense of belonging to this campus
7. I feel that this campus welcomes diversity and promotes tolerance
8. Knowing what I know now, I would still choose to enroll at UCLA

During the current academic year, how many hours do you spend during a typical week:

Responses: none, less than 1 hour, 1-2 hours, 3-5 hours, 6-10 hours, 11-15 hours; 16-20 hours; over 20 hours

9. Studying
10. Working (for pay)
11. Doing volunteer work
12. Exercising/sports
13. In student clubs/groups
14. Socializing with friends
15. Using online social networking sites for personal reasons (Facebook, Twitter, etc.)

16. **How many Residential Life programs/events have you attended [either on or with your floor/house community, or on 'the Hill') THIS academic year? Please include True Bruin Welcome Week activities in your total count as well**

    None, 1-2, 3-4, 5-6, 7 or more

This academic year, approximately how many

Responses: None, One, Two, Three, Four or more

17. ACADEMIC SUPPORT programs (e.g., Major Blast, Orientation Part II, other programs targeting study or time management skills, etc.) have you attended?
18. SOCIAL programs (e.g., mixers, attending events as a floor or community, planned cooking or eating together) have you attended?
19. PERSONAL WELLNESS (e.g., healthy eating, dealing with stress, intimate relationships, etc.) have you attended?
20. RECREATIONAL programs (e.g., intramurals, hiking, trips to beach, etc.) have you attended?
21. COMMUNITY SERVICE programs (e.g., volunteering, collecting/donating items, etc.) have you attended?
22. CULTURAL/POLITICAL/SOCIAL ISSUES programs (cultural celebrations, diversity awareness, sustainability, etc.) have you attended?
23. SPIRITUALITY/FAITH focused programs (e.g., interfaith dialogues, spiritual exploration programs, etc.) have you attended?
24. OTHER types of programs have you attended?

When UCLA is in session, how often do you: (Mark <u>one</u> for each item)	Once a day	More than once a week, but not every day	Once a week	2-3 times a month	Once a month	Less than once a month	Never
25. Visit home	☐	☐	☐	☐	☐	☐	☐
26. Contribute to the needs of your family (e.g., household, financial, childcare)	☐	☐	☐	☐	☐	☐	☐

27. Interact with a Faculty in Residence (FIR)	☐	☐	☐	☐	☐	☐	☐
28. Take part in a spiritual/religious practice (e.g., attend services/meetings, pray, meditate, reading materials, etc.)	☐	☐	☐	☐	☐	☐	☐

(Section 5) ORL & Housing Goal: Overall Satisfaction

The Office of Residential Life works closely with its campus partners to make sure residents are satisfied with their On Campus Housing experience. Whether you've lived here one quarter or several years, we'd like your honest assessment of living on campus.

Please answer the questions below about your experience with Housing and Hospitality Services.

What is your experience with this service:

Responses: Exceeds my expectations, Meets my expectations, Does not meet my expectations

29. Dining – Residential Restaurants
30. Dining – Quick-Service Restaurants (Bruin Café, Rendevous, Café 1919, De Neve Late Night)
31. Front Desk
32. Housekeeping
33. Repair/Maintenance
34. Room Assignments
35. Billing and Payments
36. Access Control

Overall, how satisfied are you with:

Responses: Satisfied, Somewhat satisfied, Somewhat dissatisfied, Dissatisfied

37. Your academic experience
38. Your experience living in On Campus Housing
39. Your overall experience as a UCLA student

40. **Please list one thing you've learned as a result of living on campus**: [text box]

41. **One thing that On Campus Housing/Residential Life could do (i.e., programs, services, facilities, policies, etc.) to help support my academic success would be:** [text box]

(Section 6) Engagement with Parents/Guardians

We are interested in the role that parent(s)/guardian(s) play in students' college experience. The questions that follow take into account the variety of family structures. Please choose the answers that best represent your experience.

1. Please indicate all individuals who have served as parental figure(s) in your life: (Mark all that apply)
   - ☐ Mother
   - ☐ Second mother (if same sex parents)
   - ☐ Father
   - ☐ Second father (if same sex parents)
   - ☐ Stepmother
   - ☐ Stepfather
   - ☐ Legal guardian/other

   If you chose "Legal guardian/other, please specify relationship (e.g., grandmother, foster parent, the State, etc.):

   _____

2. When UCLA is in session, which parental figure do you communicate with the MOST? (The answer selected will be considered "Parent/Guardian #1" and used when answering the next 12 questions. You will be given the option to discuss a second parent/guardian later in the survey.)
   (Mark <u>one</u>)
   - ☐ Mother
   - ☐ Second mother (if same-sex parents)
   - ☐ Father
   - ☐ Second father (if same-sex parents)

   - ☐ Stepmother
   - ☐ Stepfather
   - ☐ Legal guardian/other
   - ☐ N/A. I do not have any living parents or legal guardians. Please skip to the category of questions labeled, "Sources of Support" below.

When UCLA is in session, how often do you and PARENT/GUARDIAN #1 typically communicate: (Mark <u>one</u> for each item)	4 or more times a day	2-3 times a day	Once a day	More than once a week, but not every day	Once a week	2-3 times a month	Once a month	Less than once a month	Never
3. FACE to FACE (in person)	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. using the PHONE	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. using TEXT MESSAGING	☐	☐	☐	☐	☐	☐	☐	☐	☐
6. using POSTAL MAIL	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. using E-MAIL or INSTANT MESSAGING	☐	☐	☐	☐	☐	☐	☐	☐	☐

8. using ONLINE SOCIAL NETWORKS (e.g., Facebook, Twitter)	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. using VIDEO CHAT	☐	☐	☐	☐	☐	☐	☐	☐	☐

10. When UCLA is in session, PARENT/GUARDIAN #1 and I communicate: (Mark one)
    - ☐ A LOT MORE than I would like
    - ☐ A LITTLE MORE than I would like
    - ☐ Just the right amount
    - ☐ A LITTLE LESS than I would like
    - ☐ A LOT LESS than I would like

11. When communicating with PARENT/GUARDIAN #1, which of the following topics are discussed MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities
    - ___ Family matters
    - ___ Politics/current events

12. When communicating with PARENT/GUARDIAN #1, which of the following topics are discussed 2ND MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities
    - ___ Family matters
    - ___ Politics/current events

13. When communicating with PARENT/GUARDIAN #1, which of the following topics are discussed 3rd MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities

___ Family matters
___ Politics/current events

12. How would you describe PARENT/GUARDIAN 1 during your interactions? (Please Mark up to 3)
_____ Respectful
_____ Overly involved
_____ Helpful
_____ Intrusive
_____ Interested
_____ Uninterested
_____ Supportive
_____ Overly critical

13. When UCLA is in session, which parental figure do you communicate with SECOND MOST? (The answer selected will be referred to as "PARENT/GUARDIAN #2" when answering the following 12 questions)
(Mark <u>one</u>)
☐ Mother
☐ Second mother (if same-sex parents)
☐ Father
☐ Second father (if same-sex parents)
☐ Stepmother
☐ Stepfather
☐ Legal guardian/other
☐ N/A. I do not have any living parents or legal guardians. Please skip to the category of questions labeled, “Sources of Support”.

When UCLA is in session, how often do you and PARENT/GUARDIAN #2 typically communicate: (Mark <u>one</u> for each item)	4 or more times a day	2-3 times a day	Once a day	More than once a week, but not every day	Once a week	2-3 times a month	Once a month	Less than once a month	Never
14. FACE to FACE (in person)	☐	☐	☐	☐	☐	☐	☐	☐	☐
15. Using the PHONE	☐	☐	☐	☐	☐	☐	☐	☐	☐
16. using TEXT MESSAGING	☐	☐	☐	☐	☐	☐	☐	☐	☐
17. using POSTAL MAIL	☐	☐	☐	☐	☐	☐	☐	☐	☐
18. using E-MAIL or INSTANT MESSAGING	☐	☐	☐	☐	☐	☐	☐	☐	☐
19. using ONLINE SOCIAL NETWORKS (e.g., Facebook, Twitter)	☐	☐	☐	☐	☐	☐	☐	☐	☐
20. using VIDEO CHAT	☐	☐	☐	☐	☐	☐	☐	☐	☐

21. When UCLA is in session, PARENT/GUARDIAN #2 and I communicate:

(Mark one)
- ▢ A LOT MORE than I would like
- ▢ A LITTLE MORE than I would like
- ▢ Just the right amount
- ▢ A LITTLE LESS than I would like
- ▢ A LOT LESS than I would like

22. When communicating with PARENT/GUARDIAN #2, which of the following topics are discussed MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities
    - ___ Family matters
    - ___ Politics/current events

23. When communicating with PARENT/GUARDIAN #2, which of the following topics are discussed 2ND MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities
    - ___ Family matters
    - ___ Politics/current events

24. When communicating with PARENT/GUARDIAN #2, which of the following topics are discussed 3RD MOST?
    - ___ My academics
    - ___ My finances (e.g., budgets, bills, loans)
    - ___ My health and wellness
    - ___ My social relationships
    - ___ My job/employment
    - ___ My leisure time/general activities
    - ___ Family matters
    - ___ Politics/current events

23. How would you describe your PARENT/GUARDIAN #2 during your interactions? (Please Mark up to 3)
    - _____ Respectful
    - _____ Overly involved
    - _____ Helpful

_____ Intrusive
_____ Interested
_____ Uninterested
_____ Supportive
_____ Overly critical

Sources of Support

24. Which of the following individuals do you most often approach for ACADEMIC SUPPORT?
(Please Mark up to 3)
_____ Parent/Guardian 1
_____ Parent/Guardian 2
_____ Other family member (e.g., sibling, stepparent, grandparent)
_____ Romantic partner
_____ Roommate
_____ Resident Assistant
_____ Co-worker
_____ UCLA friend (other than roommate)
_____ Non-UCLA friend
_____ Faculty member
_____ Academic advisor
_____ UCLA staff/club advisor
_____ Counselor/therapist
_____ Religious or spiritual leader/advisor

25. Which of the following individuals do you most often approach for SOCIAL OR EMOTIONAL SUPPORT?
(Please Mark up to 3)
_____ Parent/Guardian 1
_____ Parent/Guardian 2
_____ Other family member (e.g., sibling, stepparent, grandparent)
_____ Romantic partner
_____ Roommate
_____ Resident Assistant
_____ Co-worker
_____ UCLA friend (other than roommate)
_____ Non-UCLA friend
_____ Faculty member
_____ Academic advisor
_____ UCLA staff/club advisor
_____ Counselor/therapist
_____ Religious or spiritual leader/advisor

During this academic year, indicate the extent to which your parent(s)/guardian(s): (Mark one for each item)	Extensively	Moderately	Slightly	Not at all
26. Influenced your choice of classes	☐	☐	☐	☐
27. Influenced your choice of extra-curricular activities	☐	☐	☐	☐
28. Influenced your choice of friends	☐	☐	☐	☐

(Section 7 *only asked of first-year freshmen & transfers*) True Bruin Welcome

ORL and the True Bruin Welcome Committee are interested in your feedback regarding True Bruin Welcome (week zero of fall quarter).

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

1. True Bruin Welcome helped me to better understand what it means to be a part of the UCLA community
2. True Bruin Welcome helped me to locate resources on campus
3. As an entering student, True Bruin Welcome made the campus feel "smaller"
4. I am proud to be a Bruin
5. True Bruin Welcome provided important academic opportunities for me as a freshman/transfer student
6. I could easily find information about True Bruin Welcome activities
7. I found True Bruin Welcome to be valuable

UCLA Volunteer DAY

Please answer the follow questions related to your participation in the Volunteer Day (during True Bruin Welcome)

8. Did you participate in the UCLA Volunteer Day for new students during True Bruin Welcome?
   Yes
   No ** If you answered 'no' then skip to question the next section, Common Book Discussions

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

9. Volunteer Day was a good way to get to know my floor/house/building community
10. I understood why we were doing the work we were doing (e.g. painting, cleaning up)
11. It helped me better understand what it means to be a part of the UCLA community
12. I have become more involved in volunteer/service projects as a result of participating in the Volunteer Day
13. I do not find value in Volunteer Day

Common Book Discussions (led by your RA)

This past summer, entering first-year students and new transfers received a copy of the book The Immortal Life of Henrietta Lacks. We are interested in your opinions and experiences with this Common Book.

14. Which of the following statements best reflects your experience with the book?
    Never received the book
    Received the book but didn't read any of it
    Received the book and read some of it
    Received the book and read all of it
15. Did you participate in the True Bruin Welcome (week zero) RA-organized discussions of the common book, *The Immortal Life of Henrietta Lacks*?
    Yes
    No, but I've participated in discussions on the book outside of these organized sessions
    No, I did not participate in any discussions ** Please skip to the next section, Demographics

Responses: Strongly agree, Agree, Neutral, Disagree, Strongly disagree

16. The Common Book discussion was a good way to get to know my floor/house/building community
17. I have been able to make connections between concepts discussed and my own personal choices and actions
18. I did not find the Common Book discussions to be of value
19. The discussion helped me better understand what it means to be a part of the UCLA community
20. I wanted to explore concepts presented in the Common Book beyond my RA-organized discussion (e.g., classes, coursework, programs and events, etc.)

(SECTION 8) Demographics

The Office of Residential Life is committed to providing safe, support**i**ve, and inclusive learning environments. To that end, we ask you to provide some demographic information so we can better meet the needs of all residents. Please feel free to skip any you do not wish you answer.

2. How do you racially/ethnically identify yourself (include whatever descriptors you feel best fits your racial/ethnic identity) [text]

3. What is your gender identity (Some people identify with a gender other than the one assumed based on their birth sex. Please include whatever descriptors you feel best fits your gender identity or expression) [text]

4. People are different in their sexual attraction to other people. Which best describes your attractions? Are you:
    Only attracted to females?
    Mostly attracted to females?
    Equally attracted to females and males?
    Mostly attracted to males?
    Only attracted to males?
    Not attracted to females nor males?
    Not sure?

5. I consider myself a first-generation college student (i.e., none of my parents/guardians attended college).
   Agree/Disagree

6. With which religion do you most closely identify?
   Buddhism
   Christianity
   Hinduism
   Islam
   Judaism
   Other Religion
   None
   Not sure

We are all members of different social identity groups (e.g., faith/spiritual, gender, race, ethnicity, sexual orientation, socioeconomic class). If there are other parts of your identity that you feel affect your daily life and experiences living on campus, please describe them below so that we may become more aware of the diversity of on-campus residents. [text]

Appendix A-3: 2015 Student-Parent/Guardian Interactions Survey

Default Question Block

Thank you for participating in the fourth-year Student-Parent Interactions Survey. Your participation is a part of a larger study measuring the role of parents in students' adjustment and success in college. The survey is designed to better understand how your communication with your parental figure(s)/ guardian(s) shapes your university experience.

Your participation is encouraged, but is completely voluntary. The survey should take about 15 minutes to complete. Your responses are completely confidential. Please read the Study Information Sheet before continuing.
By submitting the survey, you agree that you have read the Study Information Sheet, and are ready to take the survey.

Please enter your 9-digit numeric UCLA Student Identification Number (no spaces nor dashes). By entering your identification number, you authorize your responses to this survey to be linked with your previous responses to the 2011 Freshman Survey and the 2012 Rate the Hill Survey.

During this academic year, how easy has it been for you to:

	Very difficult	Somewhat difficult	Somewhat easy	Very easy
Complete academic requirements	○	○	○	○
Interact with faculty	○	○	○	○
Manage your time	○	○	○	○

effectively				
Accept feedback on your academic work	○	○	○	○
Understand what your professors expect of you academically	○	○	○	○

Compared with the average person your age, how would you rate your EMOTIONAL HEALTH?

Lowest 10%

Below average

Average

Above average

Highest 10%

During this academic year, how often have you felt:

	Not at all	Occasionally	Frequently
Depressed	○	○	○
Isolated from campus	○	○	○
Lonely	○	○	○
Homesick	○	○	○
Unsafe	○	○	○
Overwhelmed by all I had to do	○	○	○

During the current academic year, indicate your level of agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I feel a sense of community at UCLA	○	○	○	○	○

I have formed meaningful friendships in my community	○	○	○	○	○
I feel a sense of belonging to this campus	○	○	○	○	○
I feel that this campus welcomes diversity and promotes tolerance	○	○	○	○	○
Knowing what I know now, I would still choose to enroll at UCLA	○	○	○	○	○

During the current academic year, how many hours do you spend during a typical week:

	None	Less than 1 hour	1-2 hours	3-5 hours	6-10 hours	11-15 hours	16-20 hours	Over 20 hours
Studying	○	○	○	○	○	○	○	○
Working (for pay)	○	○	○	○	○	○	○	○
Doing volunteer work	○	○	○	○	○	○	○	○
Exercising/sports	○	○	○	○	○	○	○	○
In student clubs/groups	○	○	○	○	○	○	○	○
Socializing with friends	○	○	○	○	○	○	○	○
Using online social networking sites for personal reasons (Facebook, Twitter, etc.)	○	○	○	○	○	○	○	○

When UCLA is in session, how often do you: (Mark <u>one</u> for each item)

					More than once a week,
	Less				

	Never	less than once a month	Once a month	2-3 Times a month	Once a week	more but not every day	Once a day
Visit home	○	○	○	○	○	○	○
Contribute to the needs of your family (e.g., household, financial, childcare)	○	○	○	○	○	○	○

Engagement with Parent(s)/Guardian(s)

We are interested in the role that parent(s)/guardian(s) play in students' college experiences. The questions that follow take into account the variety of family structures. Please choose the answers that best represent your experience.

Please indicate all individuals who have served as parental figure(s) in your life: (Mark all that apply)

Mother

Second mother (if same sex parents)

Father

Second father (if same sex parents)

Stepmother

Stepfather

Legal guardian/other. Please specify relationship (e.g., grandmother, foster parent, the State, etc.):

When UCLA is in session, which parental figure do you communicate with the MOST? (You will be given the option to discuss a second parent/guardian later in the survey.) (Mark one)

Mother

Second mother (if same sex parents)

Father

Second father (if same sex parents)

Stepmother

Stepfather

Legal guardian/other

N/A. I do not have any living parents or legal guardians.

When UCLA is in session, how often do you and your ${q://QID9/ChoiceGroup/SelectedChoices} typically communicate: (Mark one for each item)

	Never	Less than once a month	Once a month	2-3 times a month	Once a week	More than once a week, but not every day	Once a day	2-3 times a day	4 or more times a day
FACE to FACE (in person)	O	O	O	O	O	O	O	O	O
using the PHONE	O	O	O	O	O	O	O	O	O
using TEXT MESSAGING	O	O	O	O	O	O	O	O	O
using POSTAL MAIL	O	O	O	O	O	O	O	O	O
using E-MAIL or INSTANT MESSAGING	O	O	O	O	O	O	O	O	O
using ONLINE SOCIAL NETWORKS (e.g., Facebook, Twitter)	O	O	O	O	O	O	O	O	O
using VIDEO CHAT	O	O	O	O	O	O	O	O	O

When UCLA is in session, my ${q://QID9/ChoiceGroup/SelectedChoices} and I communicate: (Mark one)

A LOT MORE than I would like

A LITTLE MORE than I would like

Just the right amount

A LITTLE LESS than I would like

A LOT LESS than I would like

How would you describe your ${q://QID9/ChoiceGroup/SelectedChoices} during your interactions?
(Mark up to 3)

Respectful
Overly involved
Helpful
Intrusive
Interested
Uninterested
Supportive
Overly critical

Please rank order the typical nature of your interactions with your ${q://QID9/ChoiceGroup/SelectedChoices}. (Drag and Drop. 1 = most frequently)

- » Respectful
- » Overly involved
- » Helpful
- » Intrusive
- » Interested
- » Uninterested
- » Supportive
- » Overly critical

To the best of your knowledge, where was your ${q://QID9/ChoiceGroup/SelectedChoices} born?

In the United States
Outside the United States
I do not know

What is the highest level of formal education obtained by ${q://QID9/ChoiceGroup/SelectedChoices}? (Mark one)

Junior high school/Middle school or less
Some high school
High school graduate
Postsecondary school other than college
Some college
College degree
Some graduate school
Graduate degree

Did your ${q://QID9/ChoiceGroup/SelectedChoices}'s education take place in the United States?

Yes
No

When UCLA is in session, which parental figure do you communicate with SECOND MOST?

» Mother
» Second mother (if same sex parents)
» Father
» Second father (if same sex parents)
» Stepmother
» Stepfather

» Legal guardian/other

» N/A. I do not have any living parents or legal guardians.

When UCLA is in session, how often do you and your ${q://QID13/ChoiceGroup/SelectedChoices} typically communicate: (Mark one for each item)

	» Never	» Less than once a month	» Once a month	» 2-3 times a month	» Once a week	» More than once a week, but not every day	» Once a day	» 2-3 times a day	» 4 or more times a day
» FACE to FACE (in person)	○	○	○	○	○	○	○	○	○
» using the PHONE	○	○	○	○	○	○	○	○	○
» using TEXT MESSAGING	○	○	○	○	○	○	○	○	○
» using POSTAL MAIL	○	○	○	○	○	○	○	○	○
» using E-MAIL or INSTANT MESSAGING	○	○	○	○	○	○	○	○	○
» using ONLINE SOCIAL NETWORKS (e.g., Facebook, Twitter)	○	○	○	○	○	○	○	○	○
» using VIDEO CHAT	○	○	○	○	○	○	○	○	○

When UCLA is in session, my ${q://QID13/ChoiceGroup/SelectedChoices} and I

communicate:
(Mark one)

» A LOT MORE than I would like
» A LITTLE MORE than I would like
» Just the right amount
» A LITTLE LESS than I would like
» A LOT LESS than I would like

How would you describe your ${q://QID13/ChoiceGroup/SelectedChoices} during your interactions?
(Please Mark up to 3)

» Respectful
» Overly involved
» Helpful
» Intrusive
» Interested
» Uninterested
» Supportive
» Overly critical

Please rank order the typical nature of your interactions with
your ${q://QID13/ChoiceGroup/SelectedChoices}. (Drag and Drop. 1 = most frequently)

» Respectful
» Overly involved
» Helpful
» Intrusive
» Interested
» Uninterested

» Supportive

» Overly critical

To the best of your knowledge, where was your ${q://QID13/ChoiceGroup/SelectedChoices} born?

In the United States
Outside the United States
I do not know
Not applicable

What is the highest level of formal education obtained by your ${q://QID13/ChoiceGroup/SelectedChoices}? (Mark one)

» Junior high school/Middle school or less
» Some high school
» High school graduate
» Postsecondary school other than college
» Some college
» College degree
» Some graduate school
» Graduate degree

Did your ${q://QID13/ChoiceGroup/SelectedChoices}'s education take place in the United States?

Yes
No

Demographic Information

What is your sex?

Male

Female

What is your racial and ethnic identity? Mark all that apply.

African American/Black

American Indian/Alaska Native

Chinese/Chinese American

East Indian/Pakistani

Filipino/Filipino American

Japanese/Japanese American

Korean/Korean American

Mexican/Mexican American/Chicano

Pacific Islander (Includes Micronesian, Polynesian, other Pacific Islanders)

Vietnamese/Vietnamese American

White/Caucasian (Includes Middle Eastern)

Other Asian (Not including Middle Eastern) Please specify

Other Spanish American/Latino (Includes Cuban, Puerto Rican, Central American, South American) Please specify

Other - Please specify

When did you come to the United States to live?

I was born in the United States.

1994 or earlier

1995

1996

1997

What is your sex?

Male

Female

What is your racial and ethnic identity? Mark all that apply.

African American/Black

American Indian/Alaska Native

Chinese/Chinese American

East Indian/Pakistani

Filipino/Filipino American

Japanese/Japanese American

Korean/Korean American

Mexican/Mexican American/Chicano

Pacific Islander (Includes Micronesian, Polynesian, other Pacific Islanders)

Vietnamese/Vietnamese American

White/Caucasian (Includes Middle Eastern)

Other Asian (Not including Middle Eastern) Please specify

Other Spanish American/Latino (Includes Cuban, Puerto Rican, Central American, South American) Please specify

Other - Please specify

When did you come to the United States to live?

I was born in the United States.

1994 or earlier

1995

1996

1997

1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014 or later

Please enter your email address if you are willing to participate in future studies related to this topic.

Email address

Thank you very much for completing the survey.
To receive the EasyPay reward on your BruinCard, please enter your first/last name, email address below:

Your first/last name and email address will only be forwarded to the UCLA BruinCard office in order to receive the incentive. Please make sure this information is entered correctly. Your personal information will not be included in survey reporting. Incentives will be disbursed following the closing of the survey on March 27 in order to preserve students' anonymity.

First Name

Last Name

UCLA Student Identification Number

Powered by Qualtrics

Appendix B: Student-Parent Interaction Survey Email Correspondence

Appendix B-1: Email 1- Invitation

Subject: Complete the Student-Parent/Guardian Interaction Survey in 72 hours and receive Guaranteed $5 BruinCard Easy Pay

Dear Student,

You are one of only [Insert number] UCLA fourth-year students selected to participate in this confidential survey conducted by Dayna S. Weintraub, investigator, under the direction of Professor Linda J. Sax, faculty sponsor, from the UCLA Graduate School of Education and Information Studies in the Higher Education and Organizational Change program. The researcher invites you to complete this follow-up questionnaire to the Residence Life survey you completed in Spring 2012 and the Freshman survey in Summer 2011. Your responses to all three surveys will help to understand how changes in your interactions with your parental figure(s) influence college success. In addition, the results of this survey will contribute to Dayna Weintraub's dissertation toward her doctoral degree. Dayna is a student affairs professional with over a decade of higher education experience.

In appreciation of your time, complete the survey in 72 hours [INSERT DATE] and you will receive $5 in Easy Pay on your BruinCard*.

If you agree to participate in the Student-Parent Interactions survey, please click on the following link to continue:
Take the Survey
Once you begin, you will need to complete the survey in one sitting and will not be able to go back to the previous pages without losing your work.

Or copy and paste the URL below into your internet browser:
By linking to the survey web site [INSERT QUALTRICS LINK HERE] you are acknowledging that you are agreeing to participate in the survey

Your participation is completely voluntary and confidential. To ensure confidentiality, this e-mail was sent by the Registrar in order that the researcher does not have your contact information. If you want more information about the survey, or how confidentiality is ensured, please click here: Participant Information Sheet.

Thank you for participating in the survey.

Best wishes,
SIGNATURES

Dayna S. Weintraub	Linda J. Sax	Lori Vogelgesang
Doctoral Student	Professor	Associate Director
GSEIS	GSEIS	UCLA Residential Life

* Credit will be awarded to all survey completers after the close of the survey period [INSERT DATE] in order to protect participant confidentiality.

Appendix B-2: Email 2- Reminder

Subject: # days to complete the Student-Parent/Guardian Interaction Survey and receive Guaranteed $3 BruinCard Easy Pay

Dear Student,

There is still time to participate in the UCLA Student-Parent/Guardian Interaction survey. You are one of only [Insert number] UCLA fourth-year students selected to participate in this confidential survey conducted by Dayna S. Weintraub, investigator, under the direction of Professor Linda J. Sax, faculty sponsor, from the UCLA Graduate School of Education and Information Studies in the Higher Education and Organizational Change program. The researcher invites you to complete this follow-up questionnaire to the Residence Life survey you completed in Spring 2012 and the Freshman survey in Summer 2011. Your responses to all three surveys will help to understand how changes in your interactions with your parental figure(s) influence college success. In addition, the results of this survey will contribute to Dayna Weintraub's dissertation toward her doctoral degree. Dayna is a student affairs professional with over a decade of higher education experience.

In appreciation of your time, complete the survey in 72 hours [INSERT DATE] and you will receive $5 in Easy Pay on your BruinCard*.

If you agree to participate in the Student-Parent Interactions survey, please click on the following link to continue:
Take the Survey
Once you begin, you will need to complete the survey in one sitting and will not be able to go back to the previous pages without losing your work.

Or copy and paste the URL below into your internet browser:
By linking to the survey web site [INSERT QUALTRICS LINK HERE] you are acknowledging that you are agreeing to participate in the survey

Your participation is completely voluntary and confidential. To ensure confidentiality, this e-mail was sent by the Registrar in order that the researcher does not have your contact information. If you want more information about the survey, or how confidentiality is ensured, please click here: Participant Information Sheet.

Thank you for participating in the survey.

Best wishes,
SIGNATURES

Dayna S. Weintraub	Linda J. Sax	Lori Vogelgesang
Doctoral Student	Professor	Associate Director
GSEIS	GSEIS	UCLA Residential Life

* Credit will be awarded to all survey completers after the close of the survey period [INSERT DATE] in order to protect participant confidentiality.

Appendix C: Participant Information Sheet

Thank you for your interest in participating in the 2015 UCLA Student-Parent/Guardian Interactions survey. The survey will be administered online starting [INSERT DATE] through [INSERT DATE]. By taking the survey, you consent to participate in the study and agree that the purpose of this research has been satisfactorily explained to you. You understand that you are free to discontinue participation at any time, and that the researcher will gladly answer any questions that may arise during the course of the research. Refusing or withdrawing from this study will be at no penalty to you.

Purpose and Significance of the Study
The study collects longitudinal data that will be used to explore how students' interactions with their parents during the first and fourth years of college effects adjustment and success outcomes. These data will provide important information to students, parents, and college administrators as to the types of parent/guardian behaviors that are the most beneficial to student progress.

Potential Risks and Discomforts
There are no foreseeable risks or discomforts with participating in this study.

Potential Benefits to Subjects and/or Society
The findings from this study will make a significant contribution to student affairs scholarship and best practices in higher education.

Data Protection & Confidentiality
Data transmission is encrypted and firewall security is in place. After you submit the survey to the secure server, a message thanking you for taking the Student-Parent/Guardian Interactions survey will be displayed in your browser window, and you will receive a confirmation email. The final survey responses will be housed at [INSERT LOCATION]. The raw data file that is shared with the researcher will not contain any unique identifiers. Any reports or publications based on this research will use only group data and will not identify you or any individual as being affiliated with this project.

Your participation is completely voluntary and confidential. Your name and email address will never be associated with your responses. You may withdraw from participating in this research study at any time without consequence of any kind. You may choose not to participate in the research study by not clicking on the link to open it. The researcher will have no access to verify whether or not you have chosen to complete or not complete the study. The researcher will only be given a list of student identification numbers fro the BruinCard office to issue the monetary credit for participating and to the Student Affairs and Information Research Office to link your responses to the previous two surveys.

Email addresses and ID numbers are never stored in the same file as the survey responses and the link between email addresses, ID numbers and survey links are stored separately form the file containing survey responses. Once the survey results have been prepared, the spreadsheet file connecting email address, ID numbers, and responses are destroyed. The destruction of this file occurs before the survey results are made available to the researcher. This survey is confidential

not anonymous; your email address will be kept by the Registrar for the duration of the survey period. The raw data file that is shared with the researcher will not contain any unique identifiers.

Who can I contact for more information?
For more information about the survey, please feel free to contact Dayna Weintraub at dayna.weintraub@gmail.com.

Appendix D: Regression Model Blocks, Variable Definitions, & Coding Schemes

Dependent Variables	**Coding**	**First-Year**	**Fourth Year**	**Change**
Ease of Academic Adjustment to College (RL)	Four-item factor *(Table 3.2)*	X		
Sense of Belonging (RL)	Four-item factor *(Table 3.4)*	X		
Emotional Well-being (RL)	Five-item factor *(Table 3.6)*	X		
Academic Integration (SPI)	Four-item factor *(Table 3.3)*		X	X
Sense of Belonging (SPI)	Four-item factor *(Table 3.5)*		X	X
Emotional Well-being (SPI)	Six-item factor *(Table 3.7)*		X	X
Independent Variables	**Coding**			
Pretest: Emotional Well-being (CIRP)	Three-item factor *(Table 3.8)*	X		
Pretest: Ease of Academic Adjustment to College (RL)	Four-item factor *(Table 3.2)*		X	X
Pretest: Sense of Belonging (RL)	Four-item factor *(Table 3.4)*		X	X
Pretest: Emotional Well-being (RL)	Five-item factor *(Table 3.6)*		X	X
Block 1: Student background characteristics and Pre-College Traits	At least six measures from the CIRP (Exact count depends on number of racial and income groups)			
Race: [Group Name] (e.g., White/Caucasian, Asian/Asian American) (CIRP)	Dichotomous: 1= "not marked", 2= "marked"	X	X	X
Gender: Female (CIRP)	Dichotomous: 1= "not marked", 2= "marked"	X	X	X
First Generation status	1 = "no", 2 = "yes"	X	X	X
Average High School Grade (CIRP)	Eight-point scale: 1="D", to 8= "A or A+"	X		
Parent Born Outside the US	1= "Inside the US" to 2= "Outside the US"	X	X	X
Parent Educated Outside the US	1= "Inside the US" to 2= "Outside the US"	X	X	X
Parent Income	1= "Less than $10,000"	X	X	X

	to 14= “$250.000 +”			
Block 2: Non-College Pressures	Three measures from the RL survey			
Frequency: Working (for pay)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Doing volunteer work	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Using online social networking sites for personal reasons (Facebook, Twitter, etc.)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Visit home (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Contribute to the needs of your family (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Block 3: College Behaviors and Experiences	Five measures from the RL survey			
Frequency: Studying (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Exercising/Sports (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: In Student Clubs and Organizations (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Block 4: Interactions with Agents of Socialization	Two measures from the RL survey			
Frequency: Socializing with friends (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Frequency: Interacting with professors (RL)	1= "None" to 8= "Over 20 hours"	X	X	X
Block 5: Student-Parent Interactions	Six measures from the RL survey	X	X	X
Frequency of interaction with [Parent] (all modes) (RL)	Sum of all seven modes, each ranging from 1= “Never” to 9= “4 or more times a day”	X	X	

Desiring more communication with [Parent] (all modes) (RL)	1= "A LOT MORE than I would like" to 5= "A LOT LESS than I would like"	X	X	
Quality of communication with [Parent] (RL)	Sum of (Respectful + Helpful + Interested + Supportive) – (Overly involved + Intrusive + Uninterested + Overly critical)	X	X	
Change in Student-Parent Interactions				X
Change in interaction with [Parent] (all modes)	=[(Parent)RL_Frequency] – [(Parent)SPI_Frequency]			X
Change in perceived satisfaction [Parent] (all modes)	=[(Parent)RL_Satisfy] – [(Parent)SPI_Satisfy]			X
Change in perceived quality [Parent]	=[(Parent)RL_Quality] – [(Parent)SPI_Quality]			X
Interaction Terms				
Parent_Frequency * Gender		X	X	X
Parent_Frequency * Race [Name of significant racial group]		X	X	X
Parent_Frequency * FirstGen		X	X	X
Parent_Satisfy * Gender		X	X	X
Parent_Satisfy * Race [Name of significant racial group]		X	X	X
Parent_Satisfy * FirstGen		X	X	X
Parent_Quality * Gender		X	X	X
Parent_Quality * Race [Name of significant racial group]		X	X	X
Parent_Quality * FirstGen		X	X	X

Appendix E: Beta Tables

Appendix E-1 Regression Predicting First-year Student Emotional Well-being (N=368)

Block	Step	Variable Entering		Beta Coefficients After Step					
			R^2	r	1	2	3	4	5
0	1	Emotional Well-being (Pretest)	21	**46**	**46**	**46**	**45**	**43**	**44**
1	2	First-generation status	22	**-10**	**-10**	**-10**	-07	-08	-09
4	3	Socialize with friends	27	**24**	**23**	**23**	**23**	**23**	**23**
5	4	Quality of interaction with father/stepfather	28	**19**	09	**10**	**10**	**10**	**12**
5	5	Frequency of interaction with father/stepfather (all modes)	29	-05	-08	-09	**-10**	**-11**	**-11**
		Variables Not Entering							
1		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)							
1		White/Caucasian		04	00	-02	-04	-05	-03
1		Filipino, Vietnamese		-01	01	02	03	03	03
1		Latino (Latino/a or Latin American, Chicana/o or Mexican American)		-04	-05	-03	-03	-04	-05
1		Total parents' income		05	07	04	03	03	04
1		Gender: Female		-05	-08	-07	-07	-07	-07
1		Average grade in high school		-01	00	-01	01	01	02
1		Parent born outside the US		-03	00	03	04	06	05
1		Parent educated outside the US		**-10**	-04	-01	01	01	00
2		Hours/week: Working for pay		-07	-08	-07	-07	-08	-07
2		Hours/week: Volunteer		-05	-05	-05	-05	-05	-05
2		Hours/week: Using online social networking sites for personal reasons		-04	-01	-01	-07	-06	-07
2		Visit home		-05	-06	-04	00	00	01
2		Contribute to needs of family		-06	-05	-03	-01	-01	02
3		Hours/week: Studying		02	-00	00	00	00	01
3		Hours/week: Exercise/Sports		**09**	07	05	01	00	02
3		Hours/week: Student clubs		00	04	04	00	-01	-01
4		Ease: Get to know faculty		06	05	06	05	05	03
5		Desiring more communication with mother/stepmother		-08	-05	-04	-06	-07	-06
5		Desiring more communication with father/stepfather		01	-01	01	-01	-03	-04
5		Frequency of interaction with mother/stepmother (all modes)		03	-01	-02	-04	-04	01
5		Quality of interaction with mother/stepmother		**16**	**10**	**11**	**09**	06	06

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-2 Regression Predicting First-year Student Academic Adjustment (N=368)

Block	Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5	6
1	1	White/Caucasian	02	**14**	**14**	**12**	**11**	**09**	08	07
2	3	Hours/week: Using Online social networking sites for personal reasons	07	**-23**	**-21**	**-21**	**-22**	**-25**	**-24**	**-25**
4	4	Get to know faculty	14	**28**	**27**	**27**	**27**	**27**	**26**	**26**
4	5	Socialize friends	16	**09**	08	**15**	**14**	**14**	**14**	**15**
5	6	Quality of interaction with father/stepfather	17	**17**	**16**	**14**	**12**	**12**	**12**	**13**
5	7	Desiring more communication with mother/stepmother	19	**-09**	-09	-09	-09	**-10**	**-11**	**-11**
		Variables Not Entering								
1		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)								
1		Other Asian (Filipino, Vietnamese, Other Asian)		-06	-02	-03	-02	-02	-01	-02
1		Latino (Latino/a or Latin American, Chicana/o or Mexican American)		01	05	05	03	02	01	00
1		Total parents' income		**10**	08	07	08	07	08	07
1		First-generation status		-09	-06	-05	-08	-06	-07	-07
1		Gender: Female		01	01	02	04	04	04	03
1		Average grade in high school		08	05	03	05	06	06	05
1		Parent born outside the US		**-14**	-08	-10	-09	-08	-07	-06
1		Parent education outside the US		**-14**	-10	-09	-10	-09	-08	-10
2		Hours/week: Working for pay		01	01	01	00	01	00	-01
2		Hours/week: Volunteer		-05	-04	-04	-06	-06	-06	-07
2		Visit home		-08	-07	-05	-05	-02	-03	-05
2		Contribute to needs of family		-06	-05	-04	-05	-03	-03	-03
3		Hours/week: Studying		**11**	**12**	09	07	07	06	07
3		Hours/week: Exercise/Sports		**10**	08	07	05	02	01	02
3		Hours/week: Student clubs		05	06	07	07	04	03	02
5		Desiring more communication with father/stepfather		-04	-05	-05	-07	-08	-11	-07
5		Quality of interaction with mother/stepmother		**19**	**18**	**16**	**13**	**12**	08	08
5		Frequency of interaction with mother/stepmother (all modes)		04	00	01	01	00	00	-01
5		Frequency of interaction with father/stepfather (all modes)		01	-02	-03	00	-01	-03	-02

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-3 Regression Predicting First-year Student Sense of belonging (N=368)

Block	Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5
4	1	Socializing with friends	06	**25**	**25**	**25**	**25**	26	25
4	2	Get to know faculty	08	**11**	11	**11**	10	08	08
5	3	Quality of interaction with father/stepfather	10	**17**	17	17	**17**	**19**	**19**
5	4	Frequency of interaction with father/stepfather (all modes)	11	-08	-09	-08	**-11**	**-11**	**-17**
5	5	Frequency of interaction with mother/stepmother (all modes)	13	07	05	05	04	**12**	**12**
		Variables Not Entering							
1		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)							
1		White/Caucasian		02	-01	-01	-03	-01	-04
1		Other Asian (Filipino, Vietnamese, Other Asian)		01	02	03	04	03	04
1		Latino (Latino/a or Latin American, Chicana/o or Mexican American)		08	08	08	06	06	05
1		Total parents' income		02	00	01	01	02	00
1		First-generation status		**-10**	-07	-08	-09	-10	-08
1		Gender: Female		**09**	09	10	09	09	07
1		Average grade in high school		05	07	08	07	09	07
1		Parent born outside the US		**-09**	-07	-06	-04	-05	-03
1		Parent education outside the US		-05	-02	-02	-01	-03	-01
2		Hours/week: Working for pay		-01	-01	-01	-02	-02	-02
2		Hours/week: Volunteer		05	05	04	05	04	04
2		Hours/week: Using online social networking sites for personal reasons		-03	-10	-10	-08	-09	-09
2		Visit home		00	05	05	05	06	04
2		Contribute to needs of family		-07	-03	-04	-04	-01	-02
3		Hours/week: Studying		-04	-04	-04	-05	-04	-04
3		Hours/week: Exercise/Sports		**10**	05	04	03	05	04
3		Hours/week: Student clubs		**09**	05	05	03	04	04
5		Desiring more communication with mother/stepmother		-02	-03	-03	-04	-04	-02
5		Desiring more communication with father/stepfather		**14**	12	12	08	08	07
5		Quality of interaction with mother/stepmother		**19**	**17**	**16**	**11**	11	09

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-4 Regression Predicting Fourth-year Student Emotional Well-being (N=368)

Block	Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5	6	7
1	1	First-Year Emotional Well-being (Pretest)	20	**45**	**45**	**44**	**43**	**43**	**44**	**42**	**42**
2	2	Parent Educated outside the US	23	**-19**	-15	**-15**	**-15**	**-14**	**-13**	**-11**	**-11**
3	3	Visit home	26	**-12**	-11	-10	**-10**	**10**	**-10**	**-09**	-08
3	4	Hours/week: Doing volunteer work	24	**12**	10	10	10	**10**	06	08	08
4	5	Hours/week: Student clubs	25	**15**	16	15	14	12	**12**	**10**	08
5	6	Interact with faculty	28	**23**	18	16	17	16	16	**16**	**14**
5	7	Socializing with friends	30	**22**	19	18	17	16	15	12	**12**
		Variables Not Entering									
2		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)									
2		White/Caucasian		05	03	-04	-03	-02	-03	-06	-07
2		Other Asian (Filipino, Vietnamese, Other Asian)		04	05	06	05	04	04	05	05
2		Latino (Latino/a or Latin American, Chicana/o or Mexican American)		**-10**	-09	-07	-07	-06	-05	-04	-04
2		First-generation status		-05	00	06	06	07	08	07	08
2		Gender: Female		-03	-01	00	00	00	01	01	01
2		Total parents' income		04	01	-04	-06	-06	-07	-07	-06
2		Parent born outside the US		-07	-06	04	03	01	02	04	05
3		Hours/week: Working for pay		-08	-08	-08	-07	-06	-05	-05	-06
3		Hours/week: Online social network		-01	00	01	01	00	00	00	-03
3		Contribute to needs of family		-07	-07	-06	-06	-05	00	-01	-01
4		Hours/week: Studying		-04	-02	-03	-04	-03	-04	-03	-04
4		Hours/week: Exercise/Sports		07	07	05	04	03	02	02	00
6		Frequency of interaction with mother/stepmother (all modes)		-02	01	-01	-02	-02	01	00	00
6		Frequency of interaction with father/stepfather (all modes)		02	04	03	02	00	04	02	01
6		Desiring more communication with mother/stepmother		04	04	04	04	02	02	02	01
6		Desiring more communication with father/stepfather		00	-02	-03	-04	-04	-04	-05	-05
6		Quality of interaction with mother/stepmother		**23**	14	12	12	11	11	09	09
6		Quality of interaction with father/stepfather		**14**	10	08	07	07	07	07	07

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-5 Regression Predicting Fourth-year Student Academic Integration (N=368)

Block	Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5	6	7
1	1	First-year Academic Adjustment (Pretest)	08	**29**	**29**	**26**	**26**	**29**	**29**	**25**	**23**
2	2	Parent born outside the US	12	**-22**	-19	**-19**	**-18**	**-19**	**-19**	**-11**	**-10**
2	3	Gender: Female	14	**15**	14	14	**14**	**14**	**14**	**15**	**14**
3	4	Hours/week: Using online social networking sites for personal reasons	15	06	13	14	13	**13**	**12**	**09**	**09**
4	5	Hours/week: Studying	17	**-11**	-12	-12	-12	-11	**-11**	**-10**	**-11**
5	6	Ease: Interact with faculty	36	**50**	48	46	46	46	46	**46**	**44**
6	7	Quality of interaction with father/stepfather	38	**24**	19	16	16	15	16	12	**12**
		Variables Not Entering									
2		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)									
2		White/Caucasian		**22**	18	11	10	11	11	03	01
2		Other Asian (Filipino, Vietnamese, Other Asian)		**-14**	-12	-08	-08	-09	-09	-07	-06
2		Latino (Latino/a or Latin		-04	-04	-04	-06	-04	-04	-01	-01
2		First-generation status		-08	-06	-02	-03	-04	-04	-04	-03
2		Total parents' income		08	05	02	04	04	04	04	03
2		Parent educated outside the		**-20**	-16	-09	-10	-11	-11	-07	-06
3		Hours/week: Working for pay		-02	00	-03	-05	-05	-06	-05	-04
3		Hours/week: Volunteer		-06	-07	-05	-06	-05	-04	-01	-01
3		Visit home		03	05	06	04	04	03	04	03
3		Contribute to needs of family		04	02	03	03	03	03	03	03
4		Hours/week: Exercise/Sports		**10**	10	05	05	06	06	04	03
4		Hours/week: Student clubs		00	02	03	03	02	02	-03	-04
5		Socializing with friends		**15**	15	14	13	11	12	03	03
6		Frequency of interaction with mother/stepmother (all modes)		09	08	04	01	01	01	00	-01
6		Frequency of interaction with father/stepfather (all modes)		**14**	13	12	10	10	10	05	03
6		Desiring more communication with mother/stepmother		04	04	05	05	05	05	04	03
6		Desiring more communication with father/stepfather		**12**	14	11	11	10	09	08	06
6		Quality of interaction with mother/stepmother		**19**	14	12	12	12	13	07	03

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-6 Regression Predicting Fourth-year Student Sense of belonging (N=368)

Block	Step	Variable Entering	R^2	Beta Coefficients After Step							
				r	1	2	3	4	5	6	7
1	1	First-Year Sense of Belonging (Pretest)	20	**44**	**44**	**44**	**45**	**45**	**43**	**42**	**41**
2	2	Parent Educated outside the US	21	**-13**	-11	**-11**	**-10**	**-11**	**-09**	-08	-05
3	3	Visit home	23	**-11**	-14	-14	**-14**	**-15**	**-13**	**-13**	**-12**
3	4	Hours/week: Using online social networking sites for personal reasons	24	08	08	09	10	**10**	07	08	07
4	5	Hours/week: Student clubs	29	**29**	25	25	24	23	**23**	**22**	**21**
4	6	Hours/week: Exercise/Sports	30	**19**	15	13	12	13	10	**10**	**10**
5	7	Interact with faculty	32	**21**	18	17	17	16	15	14	**14**
		Variables Not Entering									
2		Race group omitted: South/East Asian (Chinese, Japanese, East Indian/Pakistani)									
2		White/Caucasian		08	07	03	02	03	05	03	01
2		Other Asian (Filipino, Vietnamese, Other Asian)		06	06	07	07	06	05	06	07
2		Latino (Latino/a or Latin American, Chicana/o or Mexican American)		-05	-08	-07	-05	-04	-02	-02	-01
2		First-generation status		-06	-02	02	03	03	05	06	05
2		Gender: Female		04	00	00	02	02	03	02	02
2		Total parents' income		06	05	01	-01	-01	-02	-02	-02
2		Parent born outside the US		**-09**	-05	02	03	03	-01	02	04
3		Hours/week: Working for pay		03	-02	-01	-01	-01	03	03	03
3		Hours/week: Volunteer		07	03	03	03	03	-04	-04	-02
3		Contribute to needs of family		-03	-08	-07	01	02	03	02	02
4		Hours/week: Studying		02	03	03	02	03	03	03	03
5		Socializing with friends		**26**	20	20	18	17	13	11	09
6		Frequency of interaction with mother/stepmother (all modes)		04	-02	-02	02	02	01	-01	-01
6		Frequency of interaction with father/stepfather (all modes)		01	00	00	05	05	00	-02	-03
6		Desiring more communication with mother/stepmother		15	11	11	10	10	07	08	08
6		Desiring more communication with father/stepfather		11	03	03	04	03	03	04	03
6		Quality of interaction with mother/stepmother		20	11	11	10	10	09	09	07
6		Quality of interaction with father/stepfather		**15**	10	10	10	10	09	08	07

Note: Beta coefficients represent the standard regression coefficient that each variable would receive if it entered the regression at the next step. Decimals are omitted from all Beta coefficients. Significant beta coefficients are indicated in bold ($p<.05$).

Appendix E-7 Regression Predicting How Changes in Student-Mother/Stepmother Interactions are Associated with Emotional Well-being from the first to the fourth years of college (N=368)

Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5	6
1	First-Year Emotional Well-being (Pretest)	20	**45**	**45**	**44**	**42**	**42**	**42**	**41**
2	Parent Educated outside the US	23	**-19**	-15	**-15**	**-12**	**-11**	**-11**	**-11**
3	Interact with faculty	25	**22**	18	16	**16**	**13**	**13**	**13**
4	Socializing with friends	27	**23**	19	18	16	**16**	**16**	**16**
5	Frequency of interaction with Mother/Stepmother during the first year	27	07	06	03	02	02	02	05
6	Frequency of interaction with Mother/Stepmother during the fourth year	28	-02	01	-01	-02	-02	-05	-05

Appendix E-8 Regression Predicting How Changes in Student-Father/Stepfather Interactions are Associated with Emotional Well-being from the first to the fourth years of college (N=368)

Step	Variable Entering	R^2	Beta Coefficients After Step r	1	2	3	4	5	6
1	First-Year Emotional Well-being (Pretest)	20	**45**	**45**	**44**	**43**	**42**	**42**	**42**
2	Parent Educated outside the US	23	**-19**	-15	**-15**	**-13**	**-11**	**-11**	**-11**
3	Interact with faculty	26	**22**	19	18	**18**	**16**	**16**	**16**
4	Socializing with friends	27	**23**	18	16	13	**13**	**13**	**13**
5	Frequency of interaction with Father/Stepfather during the first year	28	08	10	08	07	05	05	06
6	Frequency of interaction with Father/Stepfather during the fourth year	28	02	04	03	01	00	-03	-03

Note: *Beta coefficients significant at p<.05.

Appendix E-9 Regression Predicting How Changes in Student-Mother/Stepmother Interactions are Associated with Academic Persistence from the First to the Fourth years of college (N=368)

			Beta Coefficients After Step								
Step	Variable Entering	R^2	r	1	2	3	4	5	6	7	8	9
1	First-year Academic Adjustment (Pretest)	08	**29**	**29**	**26**	**26**	**29**	**29**	**25**	**24**	**24**	**24**
2	Parent born outside the US	12	**-22**	-19	**-19**	**-18**	**-19**	**-19**	**-11**	**-11**	**-11**	**-11**
3	Gender: Female	14	**15**	14	14	**14**	**14**	**14**	**15**	**14**	**14**	**14**
4	Hours/week: Using online social networking sites for personal reasons	15	06	13	14	13	**13**	**12**	**09**	**10**	**10**	**10**
5	Hours/week: Studying	17	**-11**	-12	-12	-12	-11	**-11**	**-10**	**-10**	**-10**	**-10**
6	Ease: Interact with faculty	36	**50**	48	46	46	46	46	**46**	**45**	**45**	**45**
7	Quality of interaction with mother/stepmother	37	**19**	14	12	12	13	13	08	**08**	08	**09**
8	Frequency of interaction with mother/stepmother during the first year	37	**11**	10	07	04	05	04	01	01	01	02
9	Frequency of interaction with mother/stepmother during the fourth year	37	08	08	04	01	01	01	00	-01	-03	-03

Note: *Beta coefficients significant at p<.05.

Appendix E-10 Regression Predicting How Changes in Student-Father/Stepfather Interactions are Associated with Academic Persistence from the First to the Fourth years of college (N=368)

			Beta Coefficients After Step								
Step	Variable Entering	R^2	r	1	2	3	4	5	6	7	8	9
1	First-year Academic Adjustment (Pretest)	08	**29**	**29**	**26**	**26**	**29**	**29**	**25**	**24**	**24**	**24**
2	Parent born outside the US	12	**-22**	-19	**-19**	**-18**	**-19**	**-19**	**-11**	**-11**	**-11**	**-10**
3	Gender: Female	14	**15**	14	14	**14**	**14**	**14**	**15**	**14**	**14**	**14**
4	Hours/week: Using online social networking sites for personal reasons	15	06	13	14	13	**13**	**12**	**09**	**10**	**10**	**10**
5	Hours/week: Studying	17	**-11**	-12	-12	-12	-11	**-11**	**-10**	**-10**	**-10**	**-10**
6	Ease: Interact with faculty	36	**50**	48	46	46	46	46	**46**	**45**	**44**	**44**
7	Quality of interaction with mother/stepmother	37	**19**	14	12	12	13	13	08	**08**	**09**	08
8	Frequency of interaction with father/stepfather during the first year	37	**12**	12	11	11	11	11	03	03	03	02
9	Frequency of interaction with father/stepfather during the fourth year	37	**14**	13	12	10	10	10	05	05	04	04

Note: *Beta coefficients significant at p<.05.

Appendix E-11 Regression Predicting How Changes in Student-Mother/Stepmother Interactions are Associated with Sense of belonging from the first to the fourth years of college (N=368)

			Beta Coefficients After Step							
Step	Variable Entering	R^2	r	1	2	3	4	5	6	7	8
1	First-Year Sense of Belonging (Pretest)	20	**44**	**44**	**45**	**43**	**42**	**41**	**41**	**41**	**41**
2	Visit home	22	**-11**	-14	**-14**	**-13**	**-12**	**-12**	**-12**	**-13**	**-11**
3	Hours/week: Student clubs	28	**29**	25	24	**24**	**23**	**22**	**21**	**21**	**21**
4	Hours/week: Exercise/Sports	29	**19**	15	14	11	**11**	**10**	**09**	07	08
5	Interact with faculty	31	**21**	18	18	16	15	**15**	**15**	**14**	**14**
6	Quality of interaction with father/stepfather	33	**17**	16	16	14	13	13	**13**	**12**	**12**
7	Frequency of interaction with Mother/Stepmother during the first year	33	**13**	10	12	10	09	07	06	06	**11**
8	Frequency of interaction with Mother/Stepmother during the fourth year	33	04	-01	03	02	00	-01	-02	-08	-08

Note: *Beta coefficients significant at p<.05.

Appendix E-12 Regression Predicting How Changes in Student-Father/Stepfather Interactions are Associated with Sense of belonging from the first to the fourth years of college (N=368)

			Beta Coefficients After Step							
Step	Variable Entering	R^2	r	1	2	3	4	5	6	7	8
1	First-Year Sense of Belonging (Pretest)	20	**44**	**44**	**45**	**43**	**42**	**41**	**41**	**41**	**41**
2	Visit home	22	**-11**	-14	**-14**	**-13**	**-12**	**-12**	**-12**	**-12**	**-11**
3	Hours/week: Student clubs	28	**29**	25	24	**24**	**23**	**22**	**21**	**21**	**22**
4	Hours/week: Exercise/Sports	29	**19**	15	14	11	**11**	**10**	**09**	**09**	**09**
5	Interact with faculty	31	**21**	18	18	16	15	**15**	**15**	**15**	**15**
6	Quality of interaction with father/stepfather	33	**17**	16	16	14	13	13	**13**	**13**	**13**
7	Frequency of interaction with Father/Stepfather during the first year	33	05	08	08	03	01	-01	-02	-02	00
8	Frequency of interaction with Father/Stepfather during the fourth year	33	01	01	06	01	-01	-03	-05	-04	-04

Note: *Beta coefficients significant at p<.05.

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