THE PULL OF HOME:
FAMILY DYNAMICS AND THE INITIAL COLLEGE EXPERIENCES OF LOW-INCOME UNDERGRADUATES

by

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DEDICATION

For my wonderful family, Ann, Noah and Maia—
You have been my constant support and inspiration throughout this long journey. My eternal gratitude for the many sacrifices you made along the way. I love you with all my heart.

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ABSTRACT

The American higher education system has seen massive growth over the past half century. Yet despite expanded access, degree attainment remains tightly linked to socioeconomic status. Students from economically disadvantaged families continue to lag far behind their wealthier peers in rates of degree completion. Research examining the role of parents and family during college has frequently portrayed low-income families one-dimensionally as inhibiting their children's postsecondary opportunities by lacking important financial and educational resources. Yet there is emerging evidence that these parents can and do provide important forms of support to children once they are in college.

This dissertation examines the family dynamics patterns of economically disadvantaged college students, and their related influence on first-year college adjustment and second-year persistence. The study draws on theories of family capital and family kinscripts to frame social support between low-income college students and their families as a two-way exchange process. Using quantitative and student interview data from a unique statewide sample of traditional-aged low-income undergraduates, the study highlights the many ways that disadvantaged families support their children in college, but also illuminates the complex tradeoffs low-income students may face when navigating the pursuit of individual goals alongside responsibilities to fulfill family obligations.

CHAPTER 1
Study Overview

I. Introduction

Over the past half century the American higher education system has seen massive growth as ever increasing numbers of students from low socioeconomic backgrounds have pursued better lives through attainment of a college degree (Haskins, Holzer, & Lerman, n.d.; Lucas, 2006).Yet despite expanded access, degree attainment remains tightly linked to socioeconomic status. Among those students able to enter postsecondary education, a college completion rate gap of 36 percentage points exists between students from the bottom and top income quartiles (Bailey & Dynarski, 2011). This represents a serious problem both from an individual perspective, given the substantial economic and health benefits associated with a college (Carnevale & Rose, 2011; Oreopoulos & Petronijevic, 2013), and from a policy perspective given the threat posed to continued economic competitiveness and growth if a substantial portion of the population fails to attain any postsecondary credential (Goldin & Katz, 2008).

In order to illuminate and account for why low-income college students attain degrees at such dramatically lower rates, some researchers have focused their attention on the role of the student's campus social networks. Influenced by Tinto's interactionalist model of student departure (Tinto, 1993), which posits that student persistence is positively influenced by engagement with campus peers and academic personnel, researchers have highlighted an 'engagement gap' between low-income students and their wealthier colleagues (Ernest T. Pascarella & Terenzini, 2005; Pike & Kuh, 2005). This 'engagement gap' is often viewed as a byproduct of low-income students' greater external time commitments to work and family (Arum & Roksa, 2011; E T Pascarella, Pierson, Wolniak, & Terenzini, 2004). Indeed, Tinto's

original model largely characterized family and community as barriers to student persistence, holding that breaks from these groups was necessary for assimilation at college. Yet this normative view has since been critiqued for its' insensitivity to differences in racially and culturally-based norms around separation from family (Tierney, 1992, 1999), a critique Tinto acknowledged as valid (Tinto, 2007). Sociologists have also questioned this notion, calling for greater focus on the external social networks of college students, given that students, "experience schooling as a thick web of relationships" in which others "supply them with much of what they need to get through school: money, advice, friendship, emotional nurturance, and information" (Stevens, Armstrong, & Arum, 2008, p. 142).

Yet despite a burgeoning realization that family relationships continue to play an important role in the lives of college students, class-based stereotypes often persist in how those relationships are portrayed in the media and public discourse. Middle and upper-class parents, for example, are often described as hyper-involved "helicopters" bent on securing postsecondary advantages for their children by intrusively guiding their academic decision-making and intervening on their behalf with college personnel (Gibbs, 2009). Working-class parents, on the other hand, are generally ignored by popular media, but are frequently portrayed one-dimensionally in the research literature as inhibiting their children's postsecondary opportunities by lacking important financial and educational resources (Corrigan, 2003; Dickert-Conlin & Rubenstein, 2007).

Unfortunately, the media's romance with helicopter parenting, as well as the family deficit perspective implicit in much research on low-income college students, has tended to overshadow the positive roles low-income families often play in the lives of their children attending college. There is growing evidence, for example, which suggests that low-income parents can be, and

frequently are, an important source of instrumental and emotional support for their children during young adulthood (Schoeni & Ross, 2005; Settersten Jr, 2012). Parents and other family members are also commonly cited by low-income college students as central in their decision to pursue postsecondary education, as well as instrumental in their subsequent postsecondary success (Bryan & Simmons, 2009; Andrew J Fuligni & Pedersen, 2002; Andrew J Fuligni, Tseng, Lam, & Fuligni, 1999; Grigsby, 2009).

Yet there is also evidence that for college students from families with few financial resources, support may be a two-way street. Research has shown that young adults are often critical sources of support to their families, both in terms of their financial and time contributions to the household (Minikel-Lacocque & Goldrick-Rab, 2011 Fuligni & Pedersen, 2002; Rosas & Hamrick, 2002). Such responsibilities, which are rooted in norms of interdependence, obligation and reciprocity, help to ensure the family's economic survival but can also complicate the pursuit of college goals by individual family members. Improving overall and relative levels of college attainment therefore requires a more accurate assessment of how family dynamics shape educational decision-making, especially in families where financial resources are limited.

My dissertation builds new knowledge in the fields of sociology of education and the family by analyzing how the initial college experiences and persistence of students from low-income households are shaped by relationships with family members. Drawing on theories of family capital (Coleman, 1988; Furstenberg & Kaplan, 2010; Gofen, 2009) and family kinscripts (Stack & Burton, 1993), I examine the exchange of material and non-material resources within low-income families during college, as well as the specific norms and quality of interpersonal relationships that condition the exchanges. Both the assets that families bring to the college

experience, and the complex power dynamics between families and students, are considered. The study therefore has three interlinked goals:

(1) Explicate the variation in family dynamics among low-income traditional-aged undergraduates;

(2) Assess how family dynamics are related to academic outcomes, and

(3) Examine whether and how specific aspects of the first-year college experience, such as the decision to work or the ability to make social connections, mediate the relationship between family dynamics and academic outcomes.

I address these areas of inquiry using data from the Wisconsin Scholars Longitudinal Study (WSLS), a statewide longitudinal dataset incorporating extensive survey, academic record, and student interview data on the college experiences and outcomes of a cohort of traditional-aged Pell Grant recipients. This allows me to take a mixed-methods approach to study design and data analysis, thereby yielding a much richer picture of family dynamics within the sample.

II. Family Dynamics

Family dynamics are defined as the exchange of material and non-material resources within a family—particularly between parents and children—as well as the specific norms and quality of interpersonal relationships which condition the exchanges. This definition draws on Gofen's (2009) notion of family capital but expands it to include the family kinscripts framework conceived by Carol Stack and Linda Burton (Stack & Burton, 1993). Both concepts draw on research on economically and socially disadvantaged families, and are therefore particularly relevant and appropriate to this study. Gofen (2009) defines family capital as, "the ensemble of means, strategies and resources embodied in the family's way of life that influences the future of

their children." (p. 115). Developed based on ethnographic research on first-generation Israeli college students, this concept emphasizes the intersection of family relations, resources, values and norms in facilitating a child's postsecondary success. The nonmaterial resources and strategies socioeconomically disadvantaged parents draw upon are particularly important in facilitating the postsecondary academic success of their children. These strategies may include promoting education as a priority, maintaining an emotionally supportive relationship with college-going children, and fostering family values around solidarity, achievement and ambition. Perhaps most importantly, family capital emphasizes how resource-constrained families can facilitate the educational success of their children, an explicitly asset-based rather than deficit-based perspective.

Gofen's notion of family capital draws in part on Bourdieu's broader theories of social and cultural capital (Bourdieu, 1986). Bourdieu posits that individuals and families not only possess varying amounts of economic capital in the forms of income and accumulated wealth, but also cultural capital in the form of symbolic knowledge, attitudes and behaviors valued in particular social contexts. Within this framework, family capital refers to the ability of families to mobilize their economic and cultural capital on behalf of family members to achieve specific individual or collective goals such a social mobility through education. Family capital is related to transmissible cultural capital as parents seek to cultivate a sense of ambition, and an orientation to educational achievement in their children.

Because Gofen's family capital theory pays insufficient attention to how norms of obligation and reciprocity condition access to family resources and support, my definition of family dynamics also draws on Coleman's theory of social capital (Coleman, 1988). Coleman emphasized how these normative forces provide the glue for social connections within families,

and can enable family members to draw on shared resources more easily. Yet in doing so, family members are also obligated to respond in kind when called upon to do so. This is sometimes referred to as "bonding" social capital, which helps individuals and families to get by through shared social support (de Souza Briggs, 1998; Woolcock & Narayan, 2000). Carol Stack and Linda Burton developed this idea further in the concept of kinscripts, which was based on their extensive ethnographic studies of economically disadvantaged African American families (Stack & Burton, 1993). Representing the "interplay of family ideology, norms, and behaviors over the life course," (p.157) the kinscripts framework encompasses three domains: ***kinwork***, or the collective labor expected within family networks to ensure its survival; ***kintime***, or the family timetable concerning assumption of roles and events such as marriage and parenthood; and ***kinscription***, or the process by which kinwork is assigned, particularly in relation to family power dynamics. The family kinscripts framework acknowledges and draws attention to dynamics of interdependence in low-income families which are instrumental to the family's survival but which may also complicate the pursuit of individual goals.

In this study I examine patterns of family dynamics among students from resource-constrained households through the dual lenses of family capital *and* kinscripts. This lens makes it possible to identify effective support strategies used by their families while also illuminating the complex tradeoffs students face when navigating individual goals and family obligations.

III. Theoretical Model

Figure 1.1 displays the theoretical model informing development of this study. I hypothesize that student background, parent education, family financial resources, and family structure influence a student's family context, including relationship with immediate family, family

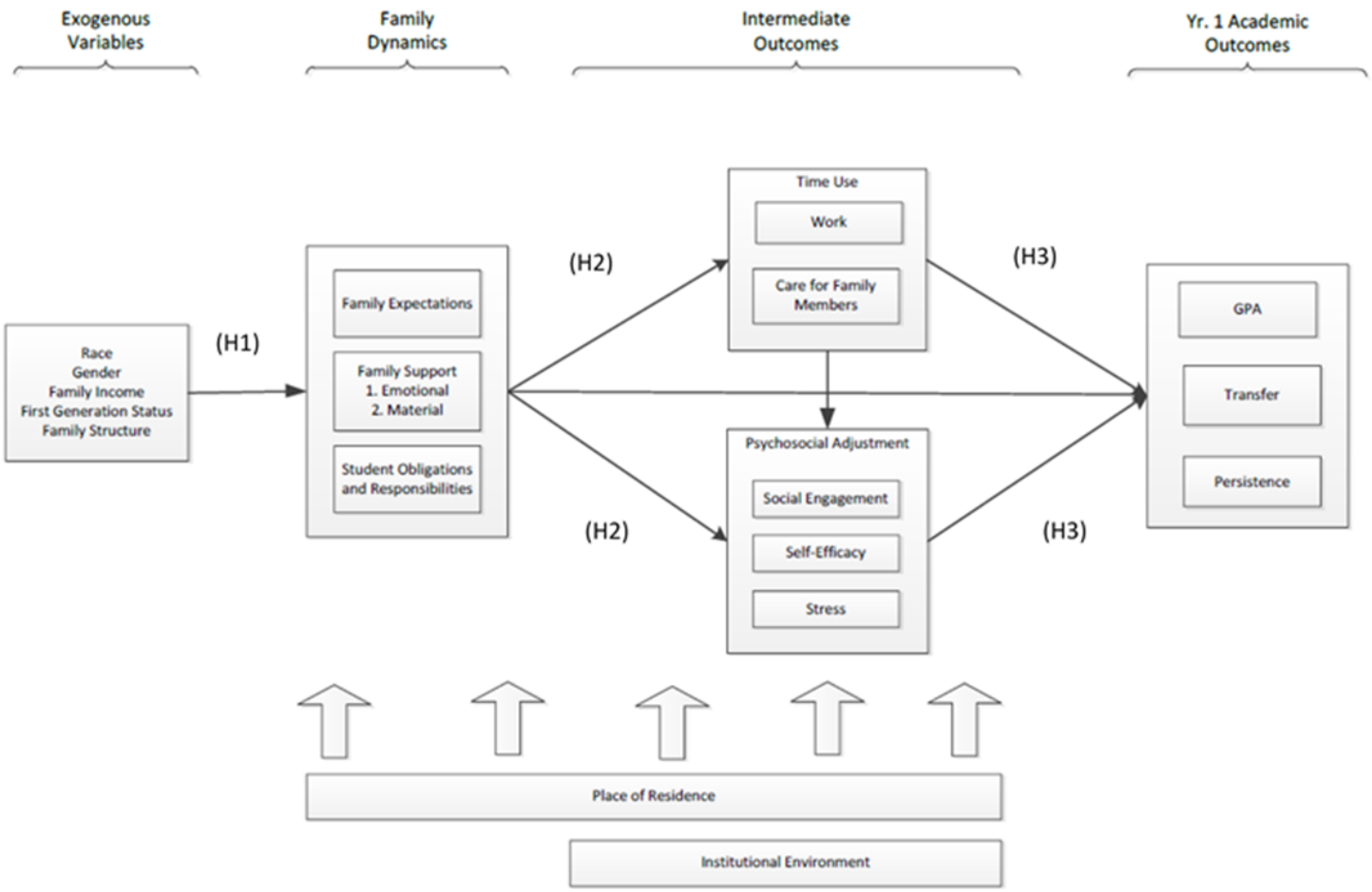
postsecondary expectations, and overall family dynamics while the student is enrolled in college (H1). Recognizing that family contexts are multifaceted, two aspects of a young adult's family dynamics are examined—emotional and material support from family, and sense of obligation to family both in terms of strength of feeling and actual material support.

In turn, I hypothesize that family dynamics influence two aspects central to a student's first year college experience—non-academic time-use in the form of work and care for family members, and psychosocial adjustment to college in the form of stress/emotional well-being, social engagement, and sense of self-efficacy (H2). Students who enjoy stronger emotional support from their parents, for example, may experience lower levels of stress while in college, and may also feel more confident in reaching out to and establishing relationships with fellow students or involvement in extracurricular activities. On the other hand, students may decide to work more during their first year if they have significant financial obligations to family in addition to costs associated with college attendance.

Figure 1.1 also reflects the likelihood that choice of residence and college institutional environment moderate the relationship between family dynamics and the first-year college experience. Students who live at home while attending college, for example, may be expected by family to expend more time each week fulfilling family responsibilities such as care for younger siblings than those who live independently. Students may also be more likely to have a smoother psychosocial adjustment process at colleges where there is a greater emphasis on facilitating social contact between students or where more comprehensive counseling services are available. Finally, I hypothesize that the relationship between family dynamics and academic outcomes during the first year is primarily indirect, operating through non-academic time use, which may reduce the amount of time a student spends on academic pursuits (Bergerson, 2007; Brint &

Cantwell, 2010), and psychosocial adjustment, which may affect the student's academic effort and general commitment to college (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Tinto, 1993; J. B. Torres & Solberg, 2001) (H3).

Fig 1.1: Theoretical model of family dynamics and their relationship to first-year college outcomes



IV. Undergraduates from Low-Income Families

National estimates indicate that 41% of all undergraduate students in the United States come from low-income households as reflected by the proportion receiving federal Pell Grants in 2012 (NPSAS, 2012).[1] Low-income students differ demographically from their more affluent counterparts in many important ways. Nearly half (48%) of low-income undergraduates come from racial or ethnic minority families compared to just 28% of their more affluent peers (NPSAS, 2012). Further, over 45% come from families where neither parent has a college degree, compared to just 26% of students from wealthier families. [2]

Although growing numbers of adults from low-income families are choosing to pursue various forms of postsecondary education, evidence paints a dramatically different picture of their college experiences and academic outcomes compared to their more advantaged peers. Low-income students are far more likely to first enroll in a two-year community college or less competitive university closer to home, and to commute to school while living with family or off campus (Bozick, 2007; S. Goldrick-Rab, 2010; Kim & Rury, 2011). They also tend to work longer hours (Benson & Goldrick-Rab, 2011; Roksa & Velez, 2010), enroll in fewer credits (Choy, 2000), and be less engaged in academic and social experiences at college—experiences such as participating in extracurricular activities and study groups, and making friends— which tend to promote greater investment and persistence in college (Astin, 1993; Martin Lohfink & Paulsen, 2005; Ernest T. Pascarella & Terenzini, 2005; Pike & Kuh, 2005; Tinto, 1993). This 'engagement gap' is often viewed as a byproduct of low-income students' greater external time

[1] Definitions of low-income status vary. In their US Department of Education report, Choy (2000) defines it as family income 125 % below the federally established poverty level. Others define low-income status in terms of federal Pell Grant eligibility (e.g. Engle & Tinto, 2008) and this is the definition I use in this study.

[2] For the purposes of this study, I define first-generation as a student whose parents' highest level of education is a high school diploma or less.

commitments to work and family (Arum & Roksa, 2011; Padgett, Johnson, & Pascarella, 2012). Yet there is also mounting evidence that low-income undergraduates face particular disadvantage due to class-based institutional and social structures favoring students with more economic resources and specific types of cultural capital (Armstrong & Hamilton, 2013; Mullen, 2010; Stuber, 2011). This may be particularly true at more elite four-year schools where the dominant culture of the institution (i.e. norms, values, expectations) is different from that of the student's family and community.

The first year of college is generally considered to be an important transition and adjustment period for all students (Attewell, Heil, & Reisel, 2012; Kuh et al., 2008; Tinto, 2007). But it appears to be particularly critical for low-income students who are nearly four times more likely to leave college after the first year than students from more affluent families (Engle & Tinto, 2008). This has been attributed to a combination of financial constraints and academic underpreparedness that contributes to academic difficulties with coursework (Dougherty & Kienzl, 2006; Walpole, 2003). Indeed, research has shown that low-income undergraduates are far less likely to have taken a rigorous high school curriculum geared toward college preparation than their more privileged peers —a factor critical to college persistence (Adelman, 2006). And while family financial constraints also appear to play a key role in accounting for socioeconomic disparities in college outcomes—particularly in light of the recent rapid growth in net cost of college attendance—the persistence of such disparities despite massive federal spending on need-based aid each year suggests that researchers need explore other factors which may exert important influence (Sara Goldrick-Rab, Harris, & Trostel, 2009).

V. The Prominent Role of Family Support among Young Adults

In the United States and other industrialized nations, the period of life between the late teens and late twenties is generally considered an important rite of passage from adolescence to adulthood. This transition to adulthood is often characterized as a time of independent identity formation and separation from family (Arnett, 2004; Cote, 2002). Yet others have the noted the central role that social structures, and particularly the family, increasingly play in shaping how the transition plays out (Settersten Jr, 2012). Young adults are relying on parents and family for material and emotional support to a much greater degree than in the past, and this trend reflects profound shifts in both the timing of the transition to adulthood, as well as the function of parents and family during the transition years (Settersten Jr, 2012). Young adults are becoming financially independent at a much later age, and many remain at home or return home to live with parents well into their twenties and even thirties (Newman, 2012). Much of this dependence can be attributed to unprecedented rates of postsecondary entry and associated postsecondary debt in conjunction with shrinking labor market opportunities for college graduates (Bailey & Dynarski, 2011; Bound, Lovenheim, & Turner, 2009; Settersten Jr, 2012). As young adults remain embedded within the social context of family for longer periods of time, the family's role in situating them and shaping their experiences during the transition years becomes particularly salient.

Although a longer transition period is common to young adults from all social backgrounds, those from economically disadvantaged households are likely to experience young adulthood in ways very different from their more advantaged peers. Children raised in high-SES families typically maintain an orderly and predictable transition sequence of postsecondary education, full-time employment, home-leaving, marriage, and parenthood (Settersten Jr, Furstenberg, &

Rumbaut, 2008). Young adults from low-income families, on the other hand, are more likely than their more privileged peers to become parents during their late-teens or early twenties, resulting in greater reliance on the support of parents and other family members (Edin & Kefalas, 2011; Ellwood & Jencks, 2004). When low-income young adults do make the transition to college after high school they tend to incur significant educational debt and take longer to complete a degree as a result of enrolling for a reduced course load while working extensively (Bound et al., 2009; Bozick, 2007; Dickert-Conlin & Rubenstein, 2007; Roksa & Velez, 2010).

There is also strong evidence that family resource allocation during the transition to adulthood differs in important ways between economically disadvantaged and more affluent families. Although most parents typically expect their children to take on greater financial responsibility and emotional independence following high school graduation, the transition to adulthood is characterized by continued reliance on parents for support, sometimes for many years (Clydesdale, 2008; Settersten Jr, 2012). However, the level of material support children receive from parents during the transition is strongly associated with family socioeconomic status. Parents from the top income quartile provide over three times as much financial support on average to their children throughout young adulthood than parents from the bottom quartile (Schoeni & Ross, 2005). This disparity importantly leads low-income college students to assume far more debt than their more affluent peers—money that they often feel obligated to share with their families to ensure the family's survival (Minikel-Lacocque & Goldrick-Rab, 2011).

Class-based differences in family structure may also play an important role in the level of material assistance low-income families can provide to their children. Economically disadvantaged families are far more likely to be headed by a single parent (usually the mother), which constrains resources available to the children (McLanahan, 2004). Multi-partner fertility

in which a family is made up of step-parents and step-siblings is also more common among disadvantaged households (Carlson & Furstenberg, 2006). In such blended families when parents are called upon to provide resources to children of different relatedness, the quantity or quality of investment may be compromised. And while the desire to foster autonomy and financial independence of children is shared by parents from all economic classes, strategies used by parents vary according to the level of resources at their disposal. Affluent parents tend to promote independence by reducing direct financial support in largely symbolic ways such as requiring a child to pay for entertainment expenses while the parent continues to cover other more costly "core" expenses such as housing, food and college tuition (Clydesdale, 2007). In contrast, children from less affluent families are more likely to receive significant non-financial support from parents during the transition such as help with chores or errands, but must assume responsibility for their own expenses at a much earlier age (Schoeni & Ross, 2005; Clydesdale, 2007).

Financial and emotional independence from parents during the transition to adulthood may become complicated in low-income and racial/ethnic minority households where post-adolescent children often maintain close ties to family and remain embedded in familial norms and practices (Newman, 2012; Minikel-Lacocque & Goldrick-Rab, 2011; Fuligni & Pedersen, 2002; Fuligini, Tseng & Lam, 1999; Desmond & Turley, 2009). Decades of research have revealed complex patterns of obligation and reciprocity within such families that bond family members to one another while also allowing the family as a whole to get by financially. Nearly forty ago these patterns were noted by Carol Stack, who documented a "what goes around comes around" norm of reciprocity within an economically disadvantaged African-American community in which community members were expected to help others facing difficulty and could expect similar

assistance in return (Stack, 1975). More recent studies of low-income families have revealed similar interdependent strategies of assistance-giving adopted by family members in order to make survival possible (Edin & Lein, 1997; Mendenhall et al., 2010).

In interviews and surveys, young adults from low-income families often express a strong sense of obligation to family and a desire to give back to parents and other family members (Newman, 2012; Minikel-Lacocque & Goldrick-Rab, 2011; Stuber, 2011; Grigsby, 2009; Desmond & Turley, 2009; Clydesdale, 2007; Fuligni & Pedersen, 2002). Variation in levels of family interdependence and obligation have also been noted among different racial and ethnic groups. Specifically, young adults from African American and Latin American families appear to have stronger feelings of family obligation relative to those from white families (Desmond & Turley, 2009; Fuligni & Pedersen, 2002; Fuligini, Tseng & Lam, 1999). And researchers have found that a person's sense of familial obligation changes across the lifespan, increasing during the transition to adulthood regardless of ethnic or socioeconomic background (Fuligni & Pedersen, 2002). That this burgeoning sense of familial obligation affects the college experience of emerging adults seems likely, yet exactly how remains unclear. There is some evidence however, that it can lead to internal conflict within some college students from low-income households regarding educational decision-making. For example, students may be torn over whether to pursue a course of study based on their own interests, or one with more labor market demand which could help support their parents in the future (A J Fuligni, Rivera, & Leininger, 2007).

VI. How Families Affect College Experiences and Academic Outcomes

The positive influence of family resources and parental expectations on the likelihood of pursuing higher education has been well-established (Dalton Conley, 2001; Mare, 1980; Perna

& Titus, 2005; Sandefur, Meier, & Campbell, 2006). Yet family relationships continue to impact the experiences and academic outcomes of college students in important ways. Parents of college students are more involved than ever in their child's experience at college (Shoup, Gonyea, & Kuh, 2009). Recently, involved parents have been negatively portrayed in popular media as "helicopter parents," hovering over their children and demanding services from postsecondary institutions in ways that may interfere with learning and development (Gibbs, 2009). Given the rapid rise over the past decade in college costs relative to family income, as well as greater economic competition and a narrowing opportunity structure, researchers have theorized that parents increasingly view the college education of their children as an important investment which must be monitored and protected (Cutright, 2008). However, evidence suggests that this view may be more common among middle and upper-class parents (Armstrong & Hamilton, 2013; Cutright, 2008; Shoup et. al, 2009).

The theoretical lens of cultural capital, which views educational institutions as non-neutral cultural sites operating according to dominant cultural rules, norms and expectations, is also useful in understanding how family social class intersects with college (Bourdieu & Passeron, 1990; Bourdieu, 1986). In one recent study, for example, sociologist Annette Lareau identified a number of specific class-based resources deployed by parents on behalf of their college-going children in order to forestall or solve problems related to the child's academic experience (Lareau & Cox, 2011). Compared to their working-class counterparts, for example, middle class parents drew on their much deeper and more detailed knowledge of postsecondary institutions to explicitly guide their children to access institutional supports such as academic advising, and to balance course difficulty in order to maintain a high overall GPA.

Although intrusive parental involvement in the lives of college students has been criticized as a hindrance to the development of autonomy and independent decision-making (Arnett, 2004; Grigsby, 2009), research suggests that family support is an important facilitator in a student's psychosocial adjustment to college. Indeed, students routinely cite parents—particularly mothers—as the first place they turn for guidance, nurturing, emotional support, and spiritual advice (Barnett, 2004; Grigsby, 2009; Herndon & Hirt, 2004). There is also evidence of a positive relationship between parental emotional support and psychological adjustment to college during the first year, such that better supported students experience less anxiety and lower levels of depression (Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Wintre & Yaffe, 2000), greater self-esteem and sense of personal responsibility (Fass & Tubman, 2002; M E Kenny & Stryker, 1996), stronger ability to cope with stressful situations (Phinney & Haas, 2003), and greater feelings of self-efficacy—defined as a person's perceived capability to perform necessary tasks to achieve goals (J. B. Torres & Solberg, 2001). Parental support has also been shown to positively relate to social integration in terms of the extent to which a child develops social relationships with peers at college (Torres & Solberg, 2001), as well as the quality of those relationships (Abar & Turrisi, 2008; Wintre & Yaffe, 2000). Support from parents and family may also play a particularly important role for African American students. In one study of social networks and adjustment among first-year students, Kenny & Stryker (1996) found that the level of socio-emotional support African American students received from family had a much stronger relationship to successful adjustment during first year than for their white peers. And in qualitative studies of African American undergraduates, students have cited parental support and encouragement as prominent factors in their decision to remain enrolled and not drop out (Barnett, 2004; Gloria, Kurpius, Hamilton, & Willson, 1999; Herndon & Hirt, 2004).

The relationship between parental support and the psychosocial adjustment of children to college can be explained by attachment theory (Maureen E. Kenny, 1987; Lapsley, Rice, & FitzGerald, 1990). Attachment theory argues that human beings are more likely to be psychologically healthy if they have trusted people in their lives they can turn to for support. Families providing secure attachments to young adults may in turn engender greater levels of self-confidence that facilitate exploration and risk-taking, including the development of new social relationships (Torres & Solberg, 2001). Through the lens of attachment theory, the quality of the parent-child relationship becomes an important factor influencing the likelihood that a new college student will make a successful psychosocial adjustment. Research has shown that students whose parents are autonomy-granting tend to adjust more easily than those who have less positive relationships with home (Hickman, Bartholomae, & McKenry, 2000; Strage & Brandt, 1999). Similarly, students whose parental relationships are characterized by more open communication and higher levels of reciprocity tend to become more psychologically and socially adjusted to college during the first year (Adams, Ryan, & Keating, 2000; Wintre & Yaffe, 2000). On the other hand, students who have negative feelings about separation from parents can have harder time adjusting emotionally to college (Rice, Cole, & Lapsley, 1990). While students with strained parental relationships or who come from divorced families may have more difficulty establishing peer relationships in college (Lopez, Melendez, & Rice, 2000).

Both family structure and the child's location of residence during the first year of college also appear to influence the quality of the parent-child relationship, as well as the level of material support the child receives from parents. Net of other factors, family size, ordinal position among siblings, and spacing of children have all been shown to be significantly associated with parental contributions to college costs (Steelman, Powell, Werum, & Carter,

2002; Steelman & Powell, 1989). And more recently, a national study by Lopez Turley & Desmond (López Turley & Desmond, 2011) has shown that divorced and remarried parents of college students contribute significantly less than married parents to college costs. Research also suggests that students who live at home during college are more likely to experience negative relationships with parents than those who live independently (Dubas & Petersen, 1996). Lower levels of independence, emotional support and mutual respect characterized these relationships (Flanagan, Schulenberg, & Fuligni, 1993). Students who remain at home while attending college may also experience greater pressure to fulfill family responsibilities (López Turley & Wodtke, 2010) and fewer opportunities to become academically and socially integrated into campus life (Tinto, 1993).

A related body of research also suggests that parental support during college influences a child's academic outcomes in direct and indirect ways. In studies of four-year college students, parental social support has been found to be a significant and positive, albeit small predictor of GPA after controlling for other student background variables (Cutrona et al., 1994; Wintre & Yaffe, 2000). Research has shown that this may be a function of parenting style where students whose parents place more demands on them to achieve academically show higher levels of academic self-confidence and greater mastery orientation to learning in college (Strage & Brandt, 1999). Research also indicates that students who feel greater emotional attachment to parents experience higher academic achievement in college (Fass & Tubman, 2002). Although a direct relationship between parental support and student persistence during college has not been demonstrated, research has found indirect effects via increased persistence intentions on the part of the student (Torres & Solberg, 2001), and a greater sense of autonomy, particularly for students enrolled in challenging academic programs (Ratelle, Larose, Guay, & Senécal, 2005).

One older study of four-year college students also found that parental norms related to the child not stopping out, pursuing a career requiring postsecondary education, and having a positive attitude toward the university of attendance led to higher likelihood of persistence between years 1 & 2 (Bank, Slavings, & Biddle, 1990).

Few studies have specifically examined family context among low-income college students. Instead, extant research has often focused on the family context of first-generation college students, highlighting aspects of cultural and/or social deficiency relative to the academic success of the child (London, 1989; Phinney & Haas, 2003; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). Such research has revealed, for example, that first-generation students may feel parents and family are unsupportive of their college pursuits, leading them to less effective ways of coping with stress such as task avoidance or neglecting studies (Phinney & Haas, 2003). They may also feel that they are unable to turn to family for academic advice or college-specific emotional support due to parents' lack of familiarity with college processes, college life, and the academic demands of coursework (Bryan & Simmons, 2009; Grigsby, 2009). And first-generation students may face significant "aspirational" pressure to do well in school from parents and siblings (Bryan & Simmons, 2009; Grigsby, 2009; London, 1989).

While informative, such findings provide a limited and perhaps distorted understanding of the intersection between home and school for disadvantaged students. They have generally given insufficient attention to forms of non-material support and inspiration low-income parents may provide to their college-going children, and they typically have failed to address variation within the population in terms of family social dynamics, norms, or patterns of resource sharing which may impact the academic experiences of college going members. More recent ethnographic studies of low-income students have attempted to rectify these shortcomings by highlighting

important social support roles played by parents in cases where students felt a sense of social exclusion from more affluent peers due to financial constraints and/or different cultural values (Bergerson, 2007; Stuber, 2011). In such situations, emotionally supportive parents were able to act as a buffer against stress and depression, and to be a source of motivation for the student to maintain focus on academic goals. Consistent with these findings, low-income and first-generation students often cite family relationships and support as having a large impact on their decision to pursue higher education, as well as their academic success once in college (Bryan & Simmons, 2009; Grigsby, 2009).

VII. Research Questions

This study is guided by the following questions:

Q1. What are the patterns of family dynamics among traditional aged undergraduates from low-income households?

a. What roles do parents and close family members play in students' lives? In particular, what types of support do they provide? How do students speak about the support they receive?

b. What roles do students play in their family's life? In particular, what types of responsibilities do they have? How do students speak about their responsibilities and sense of obligation to family?

c. How do family dynamics vary by gender, race/ethnicity, first generation status, family structure, family income and location of residence?

Q2. How do patterns of family dynamics relate to first-year academic outcomes?

a. How do family dynamics relate to first-year credit accumulation and academic achievement?

b. How do family dynamics relate to the probability of leaving college after the first year?

Q3. Is the relationship between family dynamics and the probability of remaining in college after the first year mediated by the student's psychosocial adjustment to college and/or non-academic time use?

VIII. Sample and Data

My analyses draw on data from the Wisconsin Scholars Longitudinal Study (WSLS), a mixed-methods study examining the impact of a private need-based financial grant on the college outcomes of traditional aged 18-24 year old federal Pell Grant recipients. The Pell is a need-based entitlement awarded to more than a quarter of the nation's undergraduates in 2008/09, most from families earning less than $40,000 per year (Kelchen & Goldrick-Rab, 2012). For the purposes of this study Pell Grant receipt is considered a proxy for low-income status.

The study sample is comprised of a stratified random selection of 3,000 college students enrolled in all public two-year and four-year colleges and universities in the state of Wisconsin. The WSLS participants were chosen at random from among all Wisconsin public high school graduates who first enrolled full-time in a Wisconsin public college in fall 2008, and who received the federal Pell Grant with at least one dollar of remaining unmet need. Forty percent of the WSLS sample was then randomly assigned to receive additional financial aid in the form of a private grant amounting to $3,500/year for four-year students and $1,800/year for two-year students. Extensive survey, financial aid, and academic record data were collected on WSLS study participant over a four-year period; and a subsample of 50 participants were also interviewed multiple times between 2008 and 2012 regardless of their enrollment status. Given

its mix of student-level quantitative and interview data, the WSLS study offers an uncommon opportunity to explore the role of family dynamics among traditional aged low-income students during college.

Among students in the full sample at the time of initial enrollment in September 2008, the average adjusted gross income of their parents was just under $23,000, and the mean age was between 18 and 19 years old (table 1.1). The average Expected Family Contribution[3], which is used by the college to determine the student's financial aid award, was $1,210. Fifty nine percent of the sample was female and sixty percent were first-generation college students. The sample can be considered representative of the more than 6,000 undergraduates across the state meeting the same criteria, and is also generally representative of the national population of first-time, full-time, on-time Pell Grant recipients attending public institutions (Goldrick-Rab et al., 2012).

In this study I use data from an analytic subsample of 1,051 WSLS participants who consented to the use of administrative records, completed a baseline survey in the fall semester of their freshman year, took the ACT exam prior to college entry, and were declared financial dependents on their 2008/09 FAFSA. A comparison of financial and demographic characteristics[4] between the full and analytic samples (table 1.1) reveals that both groups had similar proportions of female, racial minority, and first-generation students. However, students in the analytic sample were more likely to attend a four-year college and to come from the higher end of the family income distribution in the full sample. Nevertheless, the majority of students in

[3] The EFC is a measure of family financial strength based on information the student provides on his or her Free Application for Federal Student Aid (FAFSA) including family income, assets, benefits, family size, and the number of family members enrolled in college.

[4] Because the FAFSA does not collect race/ethnicity information, reported race/ethnicity numbers for the full sample represent survey completers only (N=2122).

the analytic sample still came from families earning at or near the 2008 federal poverty threshold of $22,025 for a family of four (U.S. Census, 2008).

Table 1.1: Sample characteristics

	Full Sample *N=3,000*		Analytic Sample *N=1,051*	
	Mean	S.D.	Mean	S.D.
Began at a two-year college	0.50	(0.50)	0.28	(0.45)
Female	0.59	(0.49)	0.62	(0.49)
Race/Ethnicity				
White	0.70	(0.46)	0.74	(0.44)
Hispanic	0.07	(0.25)	0.05	(0.22)
African American	0.10	(0.30)	0.08	(0.27)
Asian	0.08	(0.28)	0.10	(0.30)
Other	0.04	(0.20)	0.03	(0.18)
Age	18.55	(1.08)	18.27	(0.58)
First generation college student	0.60	(0.49)	0.57	(0.49)
Expected family contribution ($K)	1.21	(1.38)	1.39	(1.41)
Zero expected family contribution	0.41	(0.49)	0.33	(0.47)
Parents' adjusted gross income ($K)	22.77	(18.43)	27.73	(18.09)
Parents' total cash/checking/savings ($K)	1.91	(5.98)	2.63	(7.32)

Source: Student's 2008/09 Free Application for Federal Student Aid (FAFSA)

The study also draws on qualitative interview data derived from a subsample of 34 WSLS participants enrolled at six two-year and four-year colleges in southeastern Wisconsin who were selected for semi-structured interviews using a stratified random sampling approach. Between fall 2008 and spring 2009, WSLS interviewers—including the author of this dissertation—conducted 1-2 interviews with each respondent, with interviews spaced at intervals of approximately six months. Discussions with interviewees covered a broad set of topics including college, family, work, time use, and finances. Such interview data of college students' lives is extremely rare, and provides a valuable window into the family dynamics of low-income students during their first year of college.

Variables

The quantitative portions of this study incorporate measures of college academic outcomes, family dynamics, work behavior, psychosocial adjustment to college, as well as a variety of student background variables used in descriptive tables and as covariates. These measures are presented below in table 1.2, and are described in more detail in the methods sections of Chapters 2, 3 and 4. In general, study measures were derived from student responses to a comprehensive self-administered survey sent to the entire WSLS sample near the end of their first semester at college during the fall of 2008. However, academic measures such as the student's college enrollment status, credits, GPA and composite ACT score were taken directly from the student's college administrative records, as well as the National Student Clearinghouse, which tracks student postsecondary enrollment regardless of where the student is enrolled. Student family financial data were derived from the student's Free Application for Federal Student Aid (FAFSA) submitted prior to the start of their freshman year at college. Use of the FAFSA greatly reduces the potential for error commonly associated with self-reports of financial information (Moore, Stinson, & Welniak, 2000).

Table 1.2: Study variables

Name	Source	Description
Academic Outcomes		
GPA	College records	Semester and cumulative grade point averages for 2008/09 academic year
Credits	College records	Semester and cumulative credits earned for 2008/09 academic year
Persistence	NSC; College records	Dichotomous variable indicating college enrollment in the fall of the 2009/10 academic year
Family Dynamics		
Emotional support	Survey	Composite variable indicating level of perceived emotional support from parents
Financial support	Survey	Ordinal variable indicating level of perceived financial support from parents
Room and board support	Survey	Ordinal variable indicating level of perceived room and board support from parents
Received support	Survey	Binary measures of received support in the areas of tuition, housing, food, health insurance, cell phone bill, and help with school work
Financial obligation to family	Survey	Ordinal variable indicating extent to which student feels obligated to support family financially
Financial payments to family	Survey	Dichotomous variable indicating whether student regularly gives more than $50/mo. to family
Family care	Survey	Dichotomous variable indicating time spent in childcare or elder care in past week
Work and psychosocial adjustment		
Work	Survey	Total number of hours worked in prior week
Social integration	Survey	Composite variable indicating student's engagement with college peers
Self-efficacy	Survey	Composite variable indicating level of general self-efficacy
Student background		
Female	FAFSA	Dichotomous variable
Race/ethnicity	Survey; College records	Categorical variable of race/ethnicity
ACT	ACT; College records	Continuous variable of composite ACT score
First generation	FAFSA	Dichotomous variable indicating neither parent has college degree

Name	Source	Description
Immigrant	FAFSA;	Dichotomous variable indicating at least one parent was born outside the United States
Two parent household	Survey	Dichotomous variable indicating student lived in household with both biological parents
Siblings	Survey	Continuous variable of number of siblings
Lives at home	Survey	Dichotomous variable indicating student lives with parents in fall of yr. 1
Two parent household	Survey	Dichotomous variable indicating student lived in household with both biological parents
Parent income	FAFSA	Combined adjusted gross income of parents in 2008
Parent savings	FAFSA	Total cash, checking and savings of parents in 2008
EFC	FAFSA	Continuous variable of 2008/09 expected family contribution
Net price	College records	Net price of college attendance calculated as total COA minus total grants and scholarships

IX. Study Design

This study utilized a mixed-methods research design to explore the family contexts of low-income college students, how family dynamics may influence the college experience, and ultimately, how it may influence academic outcomes. Social science researchers have come to recognize that qualitative and quantitative data and methods have respective strengths and weaknesses in terms of their ability to answer specific types of research questions (Creswell & Clark, 2011). Qualitative research is well suited to provide nuanced insight into dynamic social processes, and to understand the meaning attributed by social actors to those processes. It is less-equipped to establish and confirm causal relationships, or examine the generalizability of findings to larger populations. Quantitative methods, on the other hand, are much stronger in this regard, and are therefore generally more appropriate when research is concerned with broader patterns present in social life. When research questions address both the lived experience of

research participants and the effects of those experiences on particular outcomes, as they do in this study, a mixed methods design is appropriate because it is able to leverage the strengths of both types of data to provide a more comprehensive account of the area of inquiry (Bryman, 2006). Additionally, a mixed methods design enables the researcher to triangulate findings in order to enhance validity via corroboration, or to reveal areas requiring further exploration via mismatch.

Although there are many types of mixed methods research designs, this study was guided by what Creswell & Clark (2011) call a convergent parallel design. In this design, the researcher analyzes both the quantitative data (QUAN) and qualitative data (QUAL) concurrently, and then merges the two sets of results into an overall interpretation. Interpretation of the merged results then focuses on areas of convergence, divergence, and how understanding of relationships can be expanded. The primary purpose of the convergent parallel design is to use different but complementary data on the same topic to provide a more complete understanding of the topic. The design focuses on triangulation of QUAN and QUAL findings via direct comparison, and QUAL data is often used to illustrate QUAN results.

Unlike other types of mixed methods designs that give precedence to either the QUAL or QUAN as the primary "driver" of the research, the convergent parallel design attempts to give equal importance to the two types of data and analytic methods. This approach is informed by an underlying paradigm of pragmatism—the notion that research questions should be addressed first and foremost by "what works" and not by a priori epistemological and ontological assumptions. My choice to adopt a convergent parallel mixed methods design for my dissertation reflects my own approach to research that is fundamentally pluralistic and pragmatic. From an ontological standpoint, I believe in the postpositivist notion that there are underlying patterns or mechanisms

which can explain social behavior (Slife & Williams, 1995). Yet I also recognize the complex and socially-dynamic nature of human behavior in regard to social phenomena—a foundation of constructivism (Denzin & Lincoln, 2005). Student experiences of college, for example, are likely to differ a great deal depending on the meanings the student ascribes to those experiences—meanings which are shaped by social interaction with others. This hybrid ontological, and pragmatic epistemological approach guided me throughout the research process from analysis to final reporting.

X. Dissertation Organization

This dissertation is organized into three analysis chapters and a conclusion chapter following this introduction. In Chapter 2, I examine variation in family support patterns among economically disadvantaged first-year college students. Through the use of latent variable mixture modeling I develop a typology of family dynamics, and examine whether latent class membership is associated with first-year academic outcomes, as well as second-year persistence. In Chapter 3, I turn to student interview data to examine how the quality of the parent-child relationship and family norms around obligation and reciprocity condition the intergenerational exchange of support between college students and their families. I also merge latent class membership information from Chapter 2 with the student interview data to triangulate and expand upon the family dynamics typology. Chapter 4 then takes up the question whether psychosocial adjustment to college and non-academic time use mediates the relationship between family dynamics and academic outcomes during the first year. This chapter uses the purely quantitative analytical technique of structural equation modeling. Finally, in Chapter 5 I integrate findings from the previous three chapters and discuss implications for higher education policy and practice.

Chapter 2
Family Dynamics Typology

1. Introduction

Central to the concept of family dynamics is the notion of social support exchanges between low-income college students and their families. These may include forms of instrumental support such as the provision of direct financial assistance, housing, food, or help with tasks like housekeeping or child care. They may include emotional support such as offering concern, encouragement or caring. Or they may involve exchanges of informational support such as the provision of guidance or advice. Traditional narratives around family support during college paint a picture of resources flowing in a downward direction from parents to college-going children in the form of financial transfers, guidance and emotional support. An extreme form of this type of narrative is that of the helicopter parent who is anguished at the separation from their college freshman and actively intervenes with child's professors and other college personnel on the child's behalf (Mortimer, 2012). Yet such normative assumptions about family support during college are tightly linked to social class. As such, they oversimplify and thus are not as useful as they could be.

Research on family relationships throughout the life course indicate that assistance between parents and young adult children is often not a one-way flow, but an exchange process shaped by factors such as physical proximity, norms of obligation and reciprocity, and financial need (Kulis, 1992). For some low-income college students, flow of family capital may not simply occur from their parents or family, but also to parents and family in the form of family kinwork (Stack & Burton, 1993; Swartz, 2009). By sharing expenses and family support responsibilities including child care, transportation, and housekeeping duties, families can leverage limited

resources to contribute to the well-being of the family as a whole. Children in economically disadvantaged families, particularly those who are the eldest or deemed more competent, may be expected to assume extensive adult family support roles and responsibilities during adolescence and young adulthood (Burton, 2007).

But once young people from these families enter college it is unclear to what extent these responsibilities continue and potentially co-occur with instrumental or other forms of support provided by their parents. Gaining a better picture of the frequency and extent of these exchanges is critically important to understand the resources available to low-income college students, as well as the responsibilities they may have which compete with their academic pursuits. This first chapter examines variation in family support patterns among economically disadvantaged first-year college students. The chapter analyses were motivated by three basic questions:

1. How and to what extent do financially constrained parents support their children during the first year of college?
2. Does instrumental support also flow from children to parents during the first year of college within economically disadvantaged families?
3. Is variation in family support patterns associated with first-year academic outcomes?

These questions are salient not only from an academic perspective but also from a policy standpoint. Many assumptions about family support undergird the calculation and allotment of student financial aid used in an effort to make college affordable. In particular, the current financial aid system assumes that all but the very poorest parents provide financial support to their children, and further assumes that students have little to no responsibility to support their parents or family financially in return while in school. These assumptions drive the calculation of the amount of financial aid students receive. Yet research has shown that these assumptions may

lie on shaky ground. Family norms around how much support a child should receive from parents during young adulthood, for example, may exert a great deal more leverage than family financial strength in how much support the child actually receives (Flint, 1997). Put another way, not all parents who can afford to do so will cover the costs of college, while some with limited resources will find ways to provide more than expected (Hamilton, 2013). The findings in this chapter help cast some light on this issue.

2. Parental Support during College

Responsibility for U.S. higher education funding has gradually shifted away from state and federal support and onto the shoulders of individual families (Heller & Callender, 2013). Although parents have long provided some portion of the funding for their child's college education, during the past three decades the federal government has steadily shifted the proportion of available financial aid from grants to loans that are often carried by parents (Baum & Steele, 2007; Paulsen & John, 2002). Financial support for higher education from states and local governments has also steadily declined (Fain, 2009; McPherson & Schapiro, 2002), leading most schools to raise tuition in response. In the past decade, average tuition and fees at public schools, which enroll the majority of low-income students, saw an annual increase of 5.6% (Baum & Ma, 2010). Parents have become the primary financiers of higher education, and the young adult years now constitute the period in a child's life when parental spending is the greatest (Kornrich & Furstenberg, 2013; Schoeni & Ross, 2005).

Research has shown that in economically advantaged and disadvantaged families alike, college attendance of a child leads to increased financial and housing support from parents (Swartz et. al., 2011). Although the proportion of household income spent supporting young adults is consistent across income brackets at around 10 % (Wightman, Schoeni & Robinson,

2010), the actual amount of money working class and poor college students are likely to receive from their families is far less than their more affluent peers due to their more modest resources. By one estimate, children in the top income quartile receive three times more material assistance from families during young adulthood than those in the bottom quartile (Schoeni & Ross, 2005). And while federal Pell Grants and other need-based financial aid adjust for some of this difference in family support when paying for the costs of college, economically constrained students and their parents still face considerable financial burden to cover the remaining unmet costs which can average more than half of a low-income family's annual earnings if their child attends a public four-year institution (Sara Goldrick-Rab & Kendall, 2014).

Money, of course, is not the only way parents provide support to their children enrolled in college. They may provide 'in kind' material support in the form of food and shared housing (coresidence). Room and board expenses, though often overlooked in the discussion of rising college costs, are a large and rising part of overall college costs. On average, they represent more than half the total cost of attending a public four-year college in the United States (College Board, 2014). And in the ten year period between 2003 and 2013, inflation adjusted room and board expenses at public four-year colleges rose from $7500 to $9500 nationally, an increase of 27 % (College Board, 2014). Parents may also provide support in the form of time looking after grandchildren if the child is also a parent. Or they may provide emotional support, moral guidance, and advice. In resource constrained families, all of these non-monetary forms of support are particularly prevalent and constitute important ways parents support children during their transition to adulthood (Mykyta & Macartney, 2011; Schoeni & Ross, 2005; Seltzer & Bianchi, 2013; Swartz, 2009). Finally, parents can also help their children in college via specific informational support. Informational support may take the form of academic counseling such as

on what courses to choose or how to seek out resources at college—what is often referred to as "college knowledge" (David Conley, 2005). Or it may take the form of "financial parenting" with the purpose of expanding the child's financial competence (Serido, Shim, Mishra, & Tang, 2010).

Parental provision of financial and non-financial support during young adulthood has been shown to differ by gender, family structure, race/ethnicity, and social class. Although sons and daughters are equally likely to receive money from parents, research suggests that sons may be more likely to receive support in the form of coresidence (Ward & Spitze, 2007; White, 1994). Children with more siblings also tend to receive less money from parents (Dalton Conley, 2004; Downey, 1995; Steelman & Powell, 1989), as do children of single parents or parents who have remarried (López Turley & Desmond, 2011). Younger children tend to receive more money for college on average than their older siblings (Haider & McGarry, 2012).

In very general terms, white families tend to exchange more financial, material, and emotional support, while minority and immigrant families tend to exchange more practical help and housing support (N. Sarkisian & Gerstel, 2004; Natalia Sarkisian, Gerena, & Gerstel, 2007). Young adults are more likely to coreside with their parents in Asian, African American, Hispanic and immigrant families, for example, than in white families (Britton, 2013; Kreider, 2008; Rumbaut & Komaie, 2010). Though to what extent these support patterns are a function of culturally-based norms versus economic need is unclear. Differences in support by race or immigrant status are highly associated with social class— higher SES families are more likely to exchange financial and emotional support, whereas lower SES families are more likely to exchange practical help (Schoeni & Ross, 2005; Sarkisian & Gerstel 2004). Thus, economic need

and available family resources may ultimately supersede cultural norms in how families support young adults attending college.

Given the central role parental assistance increasingly plays in college, research on the relationship between that assistance and academic outcomes is surprisingly scarce. As noted in the prior chapter, a sizeable body of research has linked parental emotional support during the first year of college and higher levels of psychosocial adjustment and social integraton (e.g. Cutrona et al. 1994; Wintre & Yaffe, 2000; Fass & Tubman, 2002; Kenny & Stryker, 1996; Phinney & Haas, 2003; Torres & Solberg, 2001). However, in only two of those studies (Wintre & Yaffe, 2000; Cutrona et. al. 1994) was parental social support also positively linked to GPA, though the observed effect was small. Research on the effects of parental emotional support on persistence is sparse, though one study did find effects via increased persistence intentions on the part of the student (Torres & Solberg, 2001). More recent research on the academic effects of parental financial support using national data found seemingly contradictory process at work where higher levels of parent support was associated with lower a lower GPA but a higher odds of graduating (Hamilton, 2013). The author argues that while parental aid does appear to promote persistence, too much parental aid may act as a disincentive to academic performance by buffering the child from feeling the economic costs of poor performance.

3. Responsibility to Family During College

Family support during college is generally conceptualized within social science research as flowing from the parents to the child (e.g. Hamilton, 2013; Herndon & Hirt, 2004; Block 2002). Yet a small body of research on low-income and first-generation college students suggests that many children are also called upon to provide support to their families during college in the form of financial transfers, childcare, caretaking to younger siblings or older relatives, or household

responsibilities such as cooking or cleaning (Minikel-Lacocque & Goldrick-Rab, 2011; Gilford & Reynolds, 2011; Rosas & Hamrick, 2002; Sanchez, 2006). Research has shown that adolescents in families facing economic hardship may be enlisted early to fill family roles and responsibilities typically reserved for adults—a phenomenon known as 'parentification' or 'adultification' (Burton, 2007). Thus, for many such college students, family support roles are likely a continuation of roles they assumed earlier in life. The family kinscripts framework (Stack & Burton, 1993) suggests that these responsibilities are rooted in norms of family interdependence that stem from the need to pool scarce social and financial resources for the family's survival. In this sense then, they may be thought of as 'strings' that continue to attach low-income college students to their families in ways that their more advantaged peers are unlikely to experience.

A recent qualitative study of low-income Wisconsin undergraduates using WSLS data—the same data used in the present study—found that financial and time responsibilities to family were common among interviewees (Minikel-Lacocque & Goldrick-Rab, 2011). These responsibilities included both extensive child care for younger family members, and regular financial support to parents and others, and existed across racial/ethnic groups. While many interviewees used money from employment to provide support, others noted the use of financial aid money including student loans and refunds from unused grant aid. Other studies of Native American (Waterman, 2012) and African American (Gilford & Reynolds, 2011) college students indicate that even when students leave home for college, they can continue to feel great pressure to fulfill previously held family responsibilities including caretaking for younger siblings or other family members. In both of these studies, students were compelled to return home frequently during the school year in order to provide assistance—particularly in response to

family conflict or crises (Gilford & Reynolds, 2011). Children who coreside with family during young adulthood, however, may face greater family support responsibilities than their peers who move away given that the decision to remain at home after high school has been shown to be motivated norms of familism, particularly in Asian, Hispanic and immigrant families (Desmond & Turley, 2009; Rumbaut & Komaie, 2010; Swartz, 2009). Familism has been defined as a "cultural value orientation that places greater importance on the needs of the family than on the desires of individual family members, emphasizing the importance of family roles and responsibilities generally and of adult children's relationships with their parents in particular" (Landale, Oropesa, & Bradatan, 2006). Others have argued that intergenerational coresidence during young adulthood is mainly in response to economic disadvantage (Britton, 2013; Van Hook & Glick, 2007) and represents a practical survival strategy in which family members pool incomes, share expenses, and offer other forms of instrumental support, such as child care, transportation, and food preparation that contribute to the well-being of one another and the whole (Swartz, 2009). Whether motivated by cultural or economic factors, however, intergenerational coresidence during college in economically disadvantaged families seems likely to correlate with increased responsibility to contribute to the household in terms of time and financial support.

Research on how family responsibilities impact the college experience is sparse. Indications are that they can create considerable stress as students struggle to navigate both school and family duties (Burton, 2007; Gilford & Reynolds, 2011). In a recent study of black and white college students, a positive relationship was found between family care responsibilities and depression (Hooper, Doehler, Jankowski, & Tomek, 2012). Another study of Hispanic and Chinese high school students found that an increase in the number of family assistance days per

week was associated with a decline in GPA (Telzer & Fuligni, 2009). Nevertheless, others have reported that a high level of family responsibility during adolescence may have beneficial effects by developing self- confidence, inner ‘‘grit, and a strong sense of agency (Burton, 2007). If true, these qualities may mitigate negative psychological effects of family responsibilities during college.

4. Data and Methods

4.1. Sample

Analyses in this chapter are based on data from an analytic sample of 1,051 economically disadvantaged college freshmen enrolled full-time at 28 public two and four-year colleges and universities in Wisconsin (see Chapter 1 for more information). On average, the parents of the students earned a combined adjusted gross income of $28,000 in the prior year, and all students in the sample received a federal Pell Grant in their first year at college. The sample ranged in age from 16 to 22 (M = 18.27, SD = .58), and was predominately female (62%). More than half (57%) qualified as first-generation college students (i.e. neither parent had earned a college degree), and 24% reported being a member of a racial or ethnic minority group. Asian and African American students comprised the largest of these groups at 10% and 8% respectively. Hispanic students were a somewhat smaller group at 5%.

4.2. Measures

4.2.1. Parental support

Levels of parental support were measured during the students’ first term in college using a modified ten-item version of a parental support scale (see Appendix A) originally developed by the Michigan Study of Adolescent and Adult Life Transitions (Osgood, Ruth, Eccles, Jacobs, & Barber, 2005). Although the factorial validity of the MSALT scale has not been formally

established, an exploratory factor analysis using principal factoring revealed a clear factor around parental emotional support items (eigenvalue=7.74). This factor was represented by the first eight scale items listed in Appendix A, all of which had factor loadings from .81 to .89 prior to rotation, and .69 to .91 after orthogonal varimax rotation. Moreover, the high internal reliability (α = .96) of the eight items indicated that they represented a unidimensional latent measure of parental emotional support. A composite measure of parent emotional support was formed by averaging across the eight items, which preserved the original five-point measurement scale ranging from "not at all" (= 1) to "an immense amount" (= 5).

In addition to measures of parental emotional support, the MSALT parent support scale included two items respectively measuring the levels of financial support and room and board support received by the student (Appendix A). Students were asked to indicate the extent to which their parents "provided money for your education," and "provided room and board while you obtain an education." Both items were measured using the same five-point likert scale as the emotional support items described above. Although the two items were moderately correlated with one another (r = .41), prior research indicates that the receipt of one type of instrumental support from parents does not necessarily indicate the receipt of other types during the transition to adulthood, particularly within economically disadvantaged families (Schoeni & Ross, 2005). Further, while "money for education" implies cash transfers from parents to students, "room and board support" may variously denote cash transfers, in-kind support (i.e. co-residence), or a mix of the two depending on whether the student lives with family or lives independently while attending college. The items were therefore preserved as stand-alone measures of two distinct types of instrumental support.

4.2.2. Family responsibilities

Within the family kinscripts framework (Stack and Burton, 1993) family responsibilities are described as family 'kinwork'. Kinwork contributes to the economic survival of the family and includes both "wage and nonwage labor" (p. 61). In keeping with this definition, family responsibilities were represented in these analyses by two survey items administered during the student's first term in college. The first was a binary measure of whether the student reported spending time "helping or caring for a parent or relative" during the prior week. The second was a binary measure of whether the student reported regularly giving "family or friends more than $50 per month" since starting college. Although the inclusion of "friends" in the survey question stem is unfortunate as it likely introduced a degree of measurement error into the analyses, it was the best available measure of remittances from student to family for the sample.

Sense of obligation to support family was measured by one survey item that asked members of the sample whether they felt "obligated to support your family financially." This question was similar to those used in prior research on family obligation (e.g. Fuligni & Pedersen, 2002). But it is also important to note that the measure was limited to the respondent's sense of *financial* obligation to family, and did not necessarily encompass other forms of obligation such as care for relatives. Further, it left ambiguous whether the sense of financial obligation referred to support in the present, or in the future. Nevertheless, the measure was considered an important component of family dynamics typologies given the central role obligation has been shown to play in the exchange of resources within the family (Minikel-Lacocque & Goldrick-Rab, 2012; Desmond & Turley, 2009; Fuligni & Pedersen, 2002).

4.2.3. Academic Outcomes

The relationship between the final family dynamics latent class structure and first year academic performance was examined in terms of grade point average (GPA) and credit accumulation. Both the student's GPA and earned credits for each semester were obtained directly from university records. Additionally, the relationship between family dynamics classes and student persistence into the second year was examined. Second year persistence was defined by whether or not the student enrolled for classes at any postsecondary institution in the fall term of their second year based on data obtained from the National Student Clearinghouse (NSC). The NSC tracks individual student enrollment at more than 3,500 colleges and universities nationally, thereby offering the best available measure of student enrollment regardless of whether or not the student transferred institutions.

To better understand the relationship between family dynamics classes and academic outcomes, simple regression models controlled for student ability differences by including the student's composite ACT score—obtained from the student's college records—as a covariate. The inclusion of standardized entrance exam scores as controls for academic ability can help to disentangle underlying relationships between non-cognitive factors and academic performance, and is a well-established practice in postsecondary research (e.g., Padgett, Johnson, & Pascarella, 2012; Pastor, Barron, Miller, & Davis, 2007). However, because many two-year college students do not take the ACT prior to entry, the choice to include the ACT as a covariate also served to reduce the number of two-year students in the analytic sample.

4.3. Analysis

4.3.1. Mixture modeling

The analyses in this study utilized mixture modeling, a latent variable analytic approach with a long history in statistics, often used to model population heterogeneity, generalize distributional assumptions, and for providing a framework for clustering and classification (McLachlan & Peel, 2004; Melnykov & Maitra, 2010). In general, mixture modeling refers to modeling with categorical latent variables that represent subpopulations where population membership is not known but is inferred from the data (Muthén & Muthén, 2012). The basic goal of mixture modeling is to identify underlying groups of observations (i.e. classes) that have similar values on a set of observed variables. This focus on latent classification of *individuals* distinguishes mixture modeling from the more familiar latent variable technique of factor analysis with its typical emphasis on measurement of individual *characteristics.*

The term *mixture* in mixture modeling refers to the idea that the data are not being sampled from a population that can be described by a single probability distribution, but rather by a mix of distributions corresponding to the number of latent classes present (Pastor et al., 2007). Mixture modeling therefore allows for the estimation of a unique set of parameters for each latent class, including the probability of membership, class means, and associated standard errors. One of the strengths of mixture models is their ability to account for uncertainty in class membership by allowing prediction of the probability of membership in a particular class while simultaneously estimating the profile of the class itself (Aldridge & Roesch, 2008). Mixture models are also known in the literature by the names *latent class analysis* (LCA) and *latent profile analysis* (LPA) (Collins & Lanza, 2010; Magidson & Vermunt, 2004; Vermunt & Magidson, 2002). When latent variable mixture modeling is used only with categorical variables,

the technique is often called latent class analysis. When only continuous class indicators are used, it is often called LPA. However, in reality both LCA and LPA utilize the same modeling technique which makes the distinction between the two somewhat unnecessary. Indeed, mixture models such as the one used here can be extended to include both categorical and continuous latent class indicators (Muthén & Muthén, 2012).

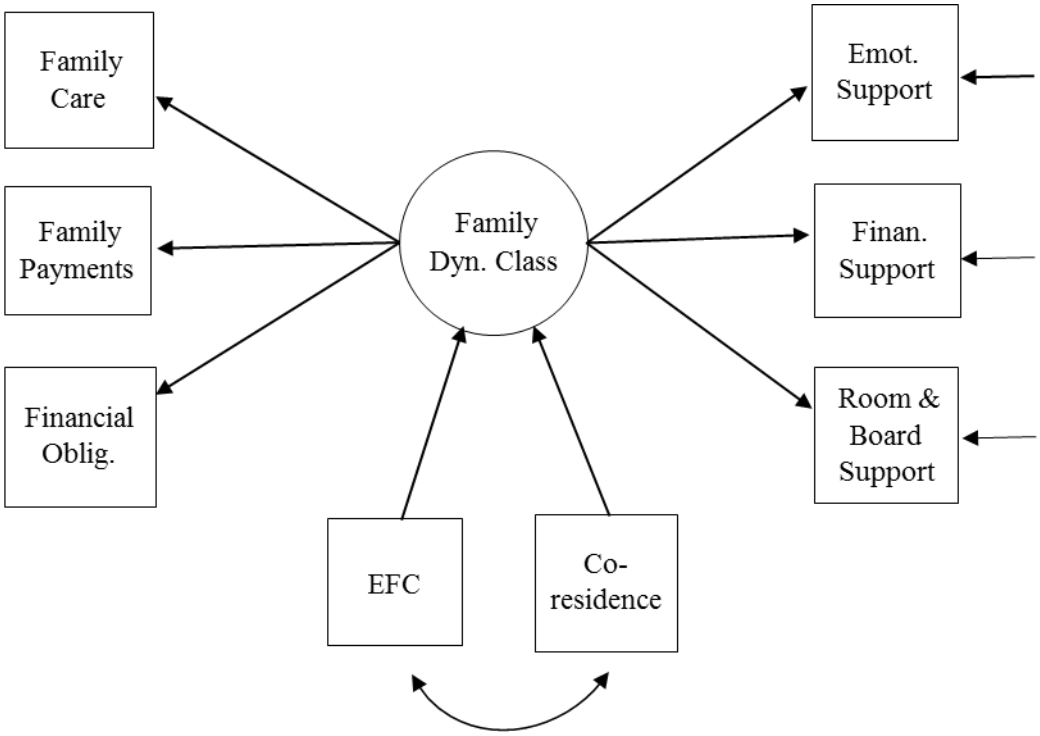


Figure 2.1: Mixture model of family dynamics among economically disadvantaged college students

Figure 2.1 represents the mixture model of family dynamics estimated in the present study. In the center of the model is the categorical latent class variable of family dynamics. Six observed variables were used to determine the latent class structure—a relationship represented by arrows running from the center circle to each indicator. On the left side of the model, three squares represent the three observed binary "kinwork" measures of family care, financial transfers to family, and financial obligation described earlier. On the right side of the model,

three squares represent the three observed measures of emotional support, financial support, and room and board support also described above. Although variables measured on an ordinal scale can be designated as categorical within the mixture modeling framework, the three support measures were treated as continuous in these analyses in order to estimate latent class means rather than simple proportions. Designating the Likert-scaled items as continuous also improved model fit by allowing the item variances to differ within each latent class as well as across classes. The reported relationships between the three binary kinwork variables and the latent class variable were derived through a set of simultaneous logistic regression equations. Similarly, the reported relationships between the three continuous support variables and the latent class variable were derived through a corresponding set of linear regression equations. The model was estimated via maximum likelihood with robust standard errors adjusted for the intraclass correlation due to students being sampled within institutions.

In addition to the six class indicators, the final model included two covariates. Although the inclusion of covariates in mixture models does not contribute to the class solution itself, it is meant to improve parameter estimates and overall model fit while also highlighting particularly important predictors of membership in the various latent classes (Collins & Lanza, 2010). The first covariate was a continuous measure of the student's Expected Family Contribution (EFC), and the second an indicator of whether student lived with family during the first year at college. These two measures were chosen based on prior research indicating variation in family support and kinwork by level of family resources (e.g. Clydesdale, 2008; Kornrich & Furstenberg, 2013; Schoeni & Ross, 2005; Seltzer & Bianchi, 2013), as well as whether the parent(s) and adult child share a place of residence (e.g. Dubas & Petersen, 1996; Flanagan, Schulenberg, & Fuligni, 1993; López Turley & Wodtke, 2010). The student's EFC was included as a proxy for the

financial strength of the student's family given that the EFC formula is based on family financial information reported by the student on the Free Application for Federal Student Aid (FAFSA) including taxed and untaxed income, assets, and benefits such as unemployment or Social Security (Department of Education, 2013).

4.3.2. Step 1: Class solution

I first sought to develop a typology of family dynamics. Therefore, I began by testing a range of models differing in the number of specified classes in order to derive the optimal number of latent family dynamics clusters or types within this sample of economically disadvantaged college students. Classes were added iteratively to determine the best model fit for the data from both statistical and theoretical perspectives. In every model, means for the continuous variables were allowed to vary across clusters, and during the initial process of model fitting no covariates were included in the models. Only after the best baseline model was identified were covariates added to further refine model fit.

Model fit was evaluated with the Lo-Mendell-Rubin Adjusted Likelihood Ratio Test (LMR), which can be used to compare the fit of models that specify a different number of classes, but otherwise utilize the same parameterization (Lo, Mendell, & Rubin, 2001). The LMR statistically compares the fit of a model with a given number of classes (e.g. a 3-class model) to a model that specifies one fewer classes (e.g. a 2-class model). A p-value of less than .05 indicates that the higher class solution fits better. While a p-value greater than .05 indicates that the lower class solution is has the better fit. Also examined were the Akaike Information Criterion (AIC; Akaike, 1974) and Bayesian Information Criterion (BIC; Schwarz, 1978), both of which are derived from the log-likelihood value to ascertain the optimal class solution. Better relative model fit is defined by lower AIC and BIC values (i.e. closer to 0) when comparing two models,

even if they do not share the same parameterization. Finally, the Entropy criterion for each model was evaluated. Entropy is a measure of how clearly distinguishable each class is from the others based on the distinctiveness of each person's estimated class probability. Higher Entropy values (i.e. those closer to 1) indicate superior model fit for a given class solution.

4.3.3. Step 2: Class profiles

I next sought to examine the profile of the "typical" student within each latent class in terms of demographic and family characteristics, and to compare those characteristics across classes. One straightforward and commonly used approach is that of modal assignment, where individuals are assigned to the class associated with their highest posterior probability of membership. Once everyone in the sample has been assigned to a particular class, it is then a relatively simple undertaking to calculate class means and standard deviations for the measures of interest, and to use ANOVA to examine differences among the classes. The weakness of the modal assignment approach, however, is its failure to incorporate the relative accuracy—reflected by the posterior probabilities of class membership—with which an individual can be assigned to a particular class. Although it may be more intuitively appealing to consider individuals as either belonging to a class or not belonging to a class, one of the great strengths of mixture modeling as an analytic technique is its ability to quantify the uncertainty (i.e. accuracy) of class affiliation for each person in the sample. Failure to account for this uncertainty in calculations of class parameters risks introducing a degree of error into the estimates.

Estimated class means and associated standard errors for class profile measures were calculated using multiple regression models. The class profile measure was used as the dependent variable and the estimated posterior probabilities of class membership were used as the independent variables in the model. The intercept of the model was forced to zero so that the

resulting coefficients for the posterior probabilities would represent the average of the dependent variable for each class, weighted by the accuracy with which persons could be classified. Means were compared across classes using post-estimation F-tests of the null hypothesis that model coefficients were simultaneously equal to zero. Significant results were followed by all pairwise comparisons, which also used an F-statistic.

4.3.4. Step 3: Class membership and first-year academic outcomes

The third and final aim of the chapter was to examine whether a relationship existed between family dynamics class membership and three types of proximal academic outcomes—GPA and credit accumulation during the first year at college, and postsecondary persistence into the second year. A regression-based modeling strategy similar to the one described above was used in which the academic outcomes were designated as dependent variables, and the estimated posterior probabilities were included as independent variables. All models controlled for pre-college academic ability in the form of the student's composite ACT score, and also included institutional fixed effects to control for unobserved institutional factors. Models of GPA and credit accumulation used simple linear regression with least squares as the estimator. Because persistence into the second year was measured using a binary enrollment variable, a logistic model was estimated using maximum likelihood. Predicted probabilities of persistence were then calculated for each latent class.

4.3.5. Software

Mplus version 7.11 (Muthén & Muthén, 2012) was used for model fitting in Step 1. Model parameters were estimated using maximum likelihood estimation via the EM algorithm. Because convergence can be a problem in latent variable mixture modeling, a relatively large number of random sets of starting values (500) had to be specified in the Mplus input file. Missing values,

which comprised less than 2 % of the observations on any of the variables in the mixture model, were assumed to be missing at random (MAR) and handled in Mplus via full-information maximum likelihood (FIML) procedure that allows missingness to be a function of observed covariates (Asparouhov & Muthén, 2010). Because students in the sample were originally selected via a clustered sampling design at the college level, the TYPE=COMPLEX analysis option in Mplus was specified in order to compute adjusted standard errors which took into account non-independence of observations. Once the best class solution was identified, data files with class membership information were output from Mplus and used as input into STATA (version 13) to complete the analyses in Steps 2 and 3.

5. Results

5.1. Step 1: Class solution

Table 2.1 contains the AIC, BIC, sample-size adjusted BIC, LMR and Entropy values for the latent class mixture model analysis. It also presents the latent class prevalence, or the probability of class membership, for each of the tested class solutions. The 3-class solution was preferable to the 2-class solution as evidenced by lower AIC and BIC values, as well as a significant LMR value. The 4-class solution was also preferable to the 3-class solution. In addition to considerably lower AIC and BIC values along with a significant LMR, the Entropy value was slightly higher indicating better class separation with the inclusion of one more class. The 5-class solution was also tested but ultimately rejected in favor of the 4-class model. Although the AIC and BIC values were slightly lower in the 5-class solution, the LMR was no longer significant and the Entropy value was somewhat lower. Further, although none of the latent class prevalences in either model were so small as to suggest outright rejection of the class as a statistical artifact, a substantive comparison of class parameters for the two models revealed relatively clear class

identities for the 4-class solution, but more ambiguous identities for the 5-class solution. As a result, the 4-class solution was deemed the best-fitting model. Class 1 had the greatest probability of membership at 34%, followed by Class 4 at 31%, Class 3 at 20%, and Class 2 at 16%. If modal assignment were used to classify individuals in the sample, Class 1 would be comprised of 359 students, Class 2 of 161, Class 3 of 198, and Class 4 of 333 students.

Table 2.1: Model fit indices and class prevalences for the 2 to 5 class solution

	2 Class	3 Class	4 Class	5 Class
Fit statistics				
AIC	13546.43	13160.35	12867.52	12747.80
BIC	13640.63	13304.12	13060.86	12990.72
Adj. BIC	13580.28	13212.01	12936.99	12835.09
Entropy	0.87	0.91	0.89	0.85
LMR	874.03, p=.033	400.33, p=.046	300.61, p=.031	137.74, p=0.323
Latent class prevalences				
Class 1	0.45	0.19	0.34	0.13
Class 2	0.55	0.35	0.16	0.15
Class 3		0.46	0.20	0.23
Class 4			0.31	0.18
Class 5				0.31

Notes: AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion; LMR, Lo-Mendell-Rubin Test

The estimated item means and item-response probabilities can be used to substantively interpret each class (Table 2.2). Students in Classes 1 and 2 showed significantly lower levels of parental emotional support when compared to students in Classes 3 and 4 ($p<.01$). Similarly low levels of financial support from parents also characterized students in Classes 1 and 2. Where the classes differed most substantially, however, was in the estimated levels of room and board support. While membership in Class 1 was associated with students receiving almost no room and board support from parents, Class 2 membership was associated with extremely high levels of support. Membership in Classes 3 and 4 shows more consistent patterns of emotional and

material support, differing only in their respective levels with Class 3 generally lower and Class 4 generally higher.

Table 2.2: Estimated means and item response probabilities for the four class solution

		Latent Class			
	Full Sample	Class 1	Class 2	Class 3	Class 4
Latent class prevalences		0.34	0.16	0.20	0.31
Family support					
Emotional support from parents	3.79	3.43	3.38	3.87	4.32
	(1.08)	(0.09)	(0.10)	(0.07)	(0.04)
Financial support from parents	2.92	1.87	1.79	3.30	4.41
	(1.51)	(0.06)	(0.08)	(0.08)	(0.06)
Room and board support from parents	3.15	1.20	4.71	2.77	4.75
	(1.64)	(0.03)	(0.04)	(0.09)	(0.04)
Family responsibilities					
Feels obligated to support family financially					
No	0.66	0.65	0.65	0.66	0.69
Yes	0.34	0.35	0.35	0.34	0.31
Spent time helping or caring for relative in past week					
No	0.47	0.70	0.53	0.70	0.71
Yes	0.32	0.31	0.47	0.30	0.29
Regularly gives family more than $50/mo					
No	0.33	0.87	0.79	0.93	0.90
Yes	0.12	0.14	0.21	0.07	0.10

Notes: Family support scale: 1=Not at all; 2=A little bit; 3=Some; 4=Quite a bit; 5=An immense amount
Standard errors in parentheses.

There was no statistical difference in the estimated sense of financial obligation across classes. But estimates of other family responsibilities were clearly far higher in Class 2 than in the other classes. Class 2 exhibited a greater than 20 % probability of regular payments to parents—more than double those in Classes 3 and 4, and more than Class 1. In addition, Class 2 membership was associated with a nearly 50 % probability of reporting recent care for a relative. Figures 2.2

and 2.3 below illustrate the substantive differences in family support, obligation and kinwork between the four classes.

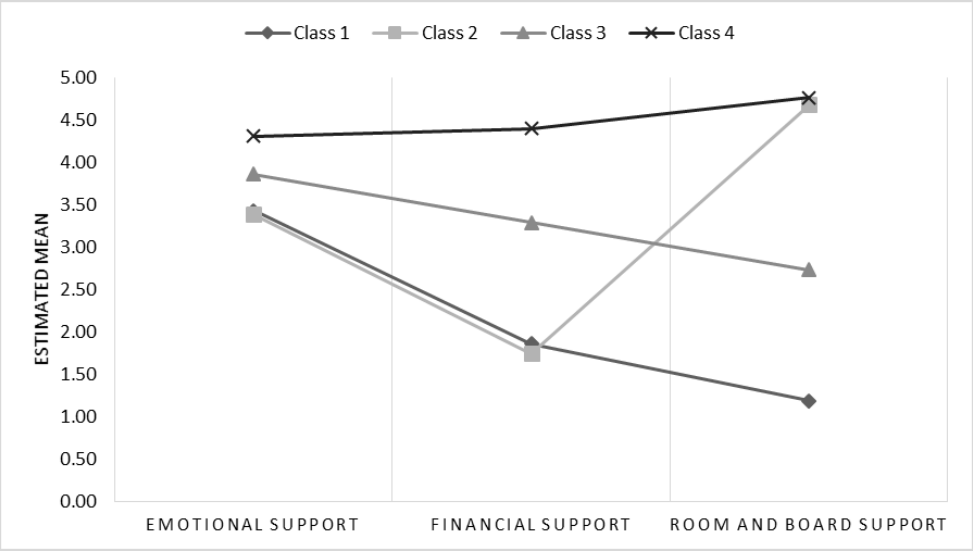


Fig. 2.2: Four class solution for family support

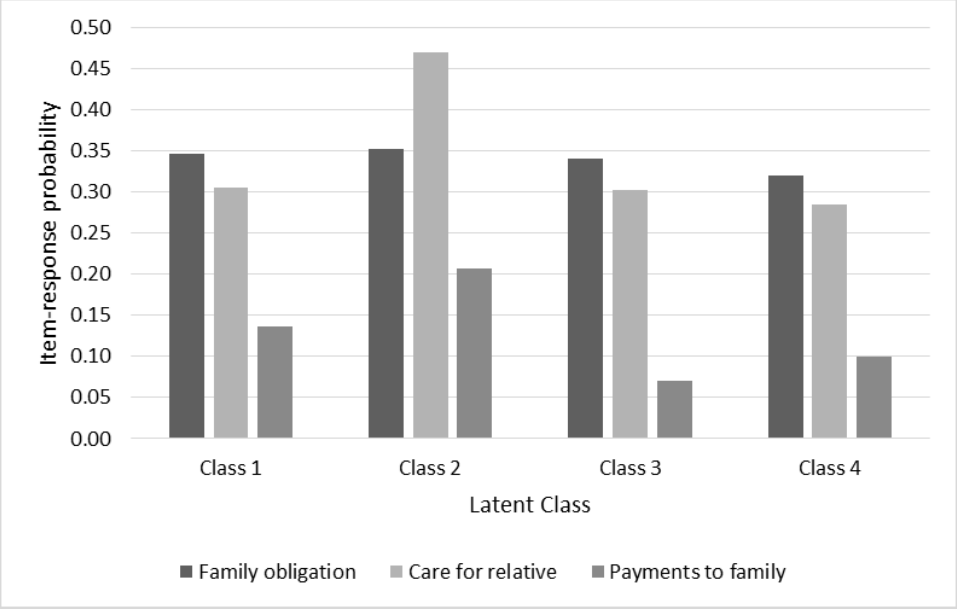


Fig. 2.3: Four class solution for obligation and kinwork

5.2. Step 2: Class profiles

Although the variation inherent in the three measures of family support used in the estimation of the mixture model was helpful to identify latent family dynamics classes defined by their

different *levels* of support, these measures also had important limitations. First, they reflected the student's *perception* of how much material support he or she received from parents rather than the actual forms of received support. And second, the measure of room and board support used in the model did not distinguish between support in the form of coresidence with family from support in the form of money for rent or student housing. Fortunately, the first-year survey also included a series of questions on whether or not the student received particular forms of material support from family in a typical month during the first semester at college.

Table 2.3: Reported family support by latent class

		Latent Class Estimates				
(N=1,051)	Full Sample	Class 1	Class 2	Class 3	Class 4	*f (3, 1047)*
Coresidence	0.30	0.11	0.89	0.16	0.28	161.53**
	(0.46)	(0.02)	(0.03)	(0.03)	(0.03)	
Money for housing	0.20	0.06	0.12	0.22	0.40	25.83**
	(0.40)	(0.01)	(0.07)	(0.03)	(0.03)	
Money for tuition	0.22	0.05	0.00	0.24	0.51	87.60**
	(0.41)	(0.01)	(0.01)	(0.03)	(0.03)	
Food	0.56	0.36	0.64	0.65	0.70	31.07**
	(0.50)	(0.03)	(0.04)	(0.04)	(0.03)	
Health insurance	0.59	0.53	0.53	0.59	0.70	7.21**
	(0.53)	(0.03)	(0.03)	(0.04)	(0.03)	
Cell phone	0.57	0.48	0.29	0.63	0.77	39.49**
	(0.50)	(0.03)	(0.04)	(0.04)	(0.03)	

Notes: *p<.05; **p<.01. Estimated class means are weighed by posterior probabilities of class membership. Full sample standard deviations in parentheses. Latent class standard errors are in parentheses. Money for housing figures are conditional on living away from home.

Table 2.3 compares the estimated rates of family material support between the four latent classes. What became immediately clear from these figures is that the high rate of 'room and board' support associated with Class 2 was in fact due to near universal coresidence with family among students in that class. Class 2 students were also quite likely to receive food support from family. Given the relatively high rates of reported family responsibilities among Class 2 students

combined with high rates of coresidency, reciprocal family kinscripts arrangements appeared more likely in this group. Yet it is notable that reciprocity did not appear to extend to direct financial support from family—essentially no Class 2 students reported receiving financial help for tuition. Nevertheless, because Class 2 appeared to be characterized by two-way resource exchanges between student and family (i.e. high rates of coresidence and financial kinwork) I named the group "Interdependent."

Class 1 students were also particularly unlikely to receive money from family to help cover the direct costs of college tuition. But unlike Interdependent students, they rarely coresided with family and were therefore generally forced to bear the costs of housing and food as well. Apart from some financial help from family for incidental expenses such as cell phone bills, the students in this group appeared very much on their own in terms covering the costs of college. Nevertheless, the estimated rates of financial payments to family and care for relatives were relatively high for Class 1. For this group then, when family support did occur it was not as an exchange but rather flowed upward from student to parents. Due to the apparent financial independence of students in this group, I gave the group the name "Self-Sufficient."

Class 3 students were also unlikely to coreside with family, though they reported considerably more financial support from family in the form of money for housing and tuition than Self-Sufficient students. Nearly one in four, for example, reported receiving money for tuition and/or housing in a typical month. Class 3 students were also likely to receive financial help to cover cell phone bills, and perhaps other incidental expenses. Although care for a family member was a relatively common practice in this group, their estimated rate of regular financial payments to family was the lowest of the four latent classes. These students generally appeared

to receive moderate amounts of material support from their families, but also to have lower levels of family responsibility. I named this group the "Medium Support" group.

Finally, mixture model estimation results indicated that Class 4 students received the highest levels of family support, but also had higher levels of family responsibility than Medium Support students. After the Interdependent group, coresidence during the first year of college was most common among Class 4 students. Nearly 1 in 3 students lived at home with family. Yet among those that did not, 40 % reported receiving financial help with housing costs. Room and board help, whether by letting the child live at home or providing money to live independently, was a central form of support among Class 4 families. Class 4 students were also likely to receive direct financial support from their parents to help cover tuition. And food support was also extremely common in this group, as was financial help paying cell phone bills. Nevertheless, and estimated one out of ten Class 4 students reported regular financial payments to family, while care for family members was also a common practice. Given the high levels of received support, it seems likely that family responsibilities among students in this group may have been rooted less in family financial need, and more preexisting norms of family reciprocity.

Table 2.4 presents a comparison of student background characteristics between the full sample and the four latent classes. Although just over one quarter of the analytic sample attended a two-year college, those students were significantly more likely to fall into the Interdependent group than the other three groups. An estimated 60 % of the Interdependent group were two-year college students compared to less than a quarter of the other three groups. Considered in combination with their near universal rate of coresidency, Interdependent students who did not attend two-year colleges undoubtedly attended local four-year institutions close to home.

Table 2.4: Latent class profiles

		Latent Class Estimates				
(N=1,051)	Full Sample	Self-Sufficient	Interde-pendent	Medium Support	High Support	*f (3, 1047)*
Student Characteristics						
Attends two-year College	0.28	0.24	0.60	0.18	0.22	24.93**
	(0.45)	(0.02)	(0.04)	(0.03)	(0.02)	
Female	0.62	0.66	0.55	0.62	0.60	1.81
	(0.49)	(0.03)	(0.04)	(0.04)	(0.03)	
Race/Ethnicity						
White	0.74	0.75	0.69	0.72	0.76	0.78
	(0.44)	(0.02)	(0.04)	(0.03)	(0.03)	
Hispanic	0.05	0.06	0.06	0.03	0.04	1.19
	(0.22)	(0.01)	(0.02)	(0.01)	(0.01)	
African American	0.08	0.09	0.07	0.08	0.07	0.31
	(0.27)	(0.02)	(0.02)	(0.02)	(0.01)	
Asian	0.10	0.06	0.13	0.14	0.11	3.80*
	(0.30)	(0.01)	(0.03)	(0.03)	(0.02)	
Other	0.03	0.04	0.04	0.03	0.03	0.18
	(0.18)	(0.01)	(0.02)	(0.01)	(0.01)	
Immigrant	0.15	0.09	0.20	0.20	0.15	4.91**
	(0.35)	(0.02)	(0.03)	(0.03)	(0.02)	
Two-parent household	0.51	0.40	0.48	0.59	0.60	10.22**
	(0.50)	(0.03)	(0.04)	(0.04)	(0.03)	
Number of siblings	3.20	3.28	3.71	3.49	2.67	9.20**
	(2.22)	(0.13)	(0.21)	(0.18)	(0.11)	
First generation college student	0.57	0.59	0.64	0.56	0.53	1.74
	(0.49)	(0.03)	(0.04)	(0.04)	(0.03)	
Combined ACT score	21.08	21.40	20.28	21.69	20.74	5.88**
	(3.85)	(0.21)	(0.29)	(0.29)	(0.22)	
Student is employed	0.55	0.54	0.75	0.58	0.44	13.40**
	(0.50)	(0.03)	(0.04)	(0.04)	(0.03)	
Average work hrs./wk.*	15.58	16.24	18.57	12.62	14.77	7.04**
	(9.84)	(0.81)	(0.99)	(0.86)	(0.74)	
Parents' gross income ($K)	27.73	23.73	24.47	31.69	31.26	13.19**
	(18.09)	(0.95)	(1.57)	(1.36)	(1.03)	
Parents' cash/checking/savings ($K)	2.63	2.01	2.90	3.50	2.63	1.97
	(7.32)	(0.29)	(0.76)	(0.76)	(0.28)	
Financial Aid						
Expected family contribution ($K)	1.39	1.10	1.02	1.54	1.79	15.79**
	(1.41)	(0.07)	(0.11)	(0.10)	(0.08)	
Zero expected family contribution	0.33	0.43	0.40	0.30	0.20	15.16**

		Latent Class Estimates				
(N=1,051)	Full Sample	Self-Sufficient	Interde-pendent	Medium Support	High Support	*f (3, 1047)*
	(0.47)	(0.03)	(0.04)	(0.03)	(0.02)	
Net price ($K)	5.94	6.46	2.95	6.85	6.30	46.92**
	(4.06)	(0.23)	(0.26)	(0.29)	(0.23)	
Total loans ($K)	2.85	3.04	1.44	3.20	3.12	20.56**
	(2.71)	(0.16)	(0.19)	(0.19)	(0.16)	
Percentage of aid as loans	0.23	0.23	0.14	0.26	0.26	12.15**
	(0.21)	(0.01)	(0.02)	(0.02)	(0.01)	

*Notes: *p<.05; **p<.01. Estimated class means are weighed by posterior probabilities of class membership. Full sample standard deviations in parentheses. Latent class standard errors in parentheses. Asian group includes both Southeast Asian and East Asian. Immigrant defined as both parents born outside the United States and/or student born outside the United States. Net price calculated as cost of attendance adjusted for place of residence minus total grants and scholarships received, thus representing the net cost of attendance to the student and the student's family. Reported work hours for employed students only.*

Although differences in the class proportions of female students were not statistically significant, females appeared to have a somewhat lower probability of being in the Interdepdent group than the other groups. As noted earlier, this pattern is consistent with research suggesting that sons may be more likely to coreside with parents during young adulthood (Ward & Spitze, 2007; White, 1994). Also consistent with prior research showing coresidence and kinwork tend to be more common in minority families (e.g. Desmond & Turley, 2009; Rumbaut & Komaie, 2010; Swartz, 2009), white students were relatively less likely to be in the Interdependent group than the other groups. Asian students, on the other hand, who were predominately from Hmong immigrant families, were likely to fall into either the Interdependent or Medium Support groups. Just over half of the total sample was comprised of students coming from households with both biological parents, though such students were significantly more likely to fall into the Medium Support and High Support groups than into either the Self-Sufficient or Interdependent groups which were statistically similar to each other. Students with fewer siblings were also more likely to fall into the High Support group which again was consistent with prior research showing a

relationship between family structure and access to family support (e.g. Turley & Desmond 2011; Conley, 2004; Downey 1995; Steelman and Powell 1989).

There was little difference between groups in mean composite ACT score, which indicated that students had similar levels of precollege academic preparation on average. There were, however, notable differences between the latent classes in both the propensity to be employed, and the average number of hours employed students reported working per week. On average, just over half of the students in the sample reported being employed during their first term. However, that figure jumped to 75 % among Interdependent students. Further, employed Interdependent students worked nearly 19 hours per week on average, a significantly higher number than the other three groups. This provides some support for the hypothesis stated in the previous chapter, that responsibility to provide financial support to family may contribute to higher work hours during the first year of college in families with strong kinscripts arrangements.

When family finance measures were compared across the latent classes, it became clear that the Self-Sufficient and Interdependent groups appeared more economically similar to one another in terms of their relative economic disadvantage. Similarly, the Medium and High Support groups appeared more economically similar to each other in terms of their relative economic advantage. The average adjusted gross income amounts for the Self-Sufficient and Interdependent groups, for example, hovered around $24,000 per year. Average income in the Medium and High Support groups, on the other hand, averaged close to $31,000 a year—a sizeable difference which helps explain the disparity in direct financial support between the two groups. Unlike parent income, the average family asset amounts among the four groups were statistically similar. Nevertheless, assets are often underreported on the FAFSA, which leaves

open the possibility that family wealth disparities may have also been a contributing factor to the observed family dynamics patterns.

Although the calculated amount of a student's expected family contribution (EFC) is not necessarily the same as the amount of money the student's family will have to pay once the student receives his or her full financial aid package, the EFC figure can be considered an estimate of the family's relative ability to financially contribute to the costs a child's college education, and is a central component in the calculation of the amount of financial aid the student is offered. The estimated latent class means presented in Table 2.4 indicate EFC level was indeed related to the probability of latent class membership in this sample as one might expect. However, the relationship did not appear to be a linear one (i.e. the higher the EFC, the more support the student received). While monotonic increases in EFC were associated with the Medium and High Support groups, the Interdependent group received considerably higher levels of material support (in coresidence and food) than the Self-Sufficient group despite the fact that the estimated EFC for the Interdependent group was somewhat lower.

The relative disadvantage of the Self-Sufficient students was also illustrated by the average net price of attendance figures[5]. When latent group estimates of the net price of attendance were calculated and graphed (Figure 2.4), it became evident that the Self-Sufficient students had essentially the same price of attendance as the Medium and High support students as evidenced by the similar means and distributional shapes of the three groups. Nevertheless, it is also clear from the reports of family support presented earlier in table 2.3 that Self-Sufficient students are likely to have far less access to family financial support for tuition and housing than their

[5] Net price was calculated as total cost of attendance at the student's institution minus total grants and scholarships awarded to the student. Cost of attendance estimates based on IPEDS data for the year of attendance and adjusted for student's place of residence (i.e. on campus, off campus or with family).

Medium and High Support peers. For the Self-Sufficient group, which was the largest of the four identified classes, any financial or room and board support from family was extremely unlikely. Yet many students in the sample who fell into the Self-Sufficient group had levels of financial need well into the range of $5,000 to $10,000.

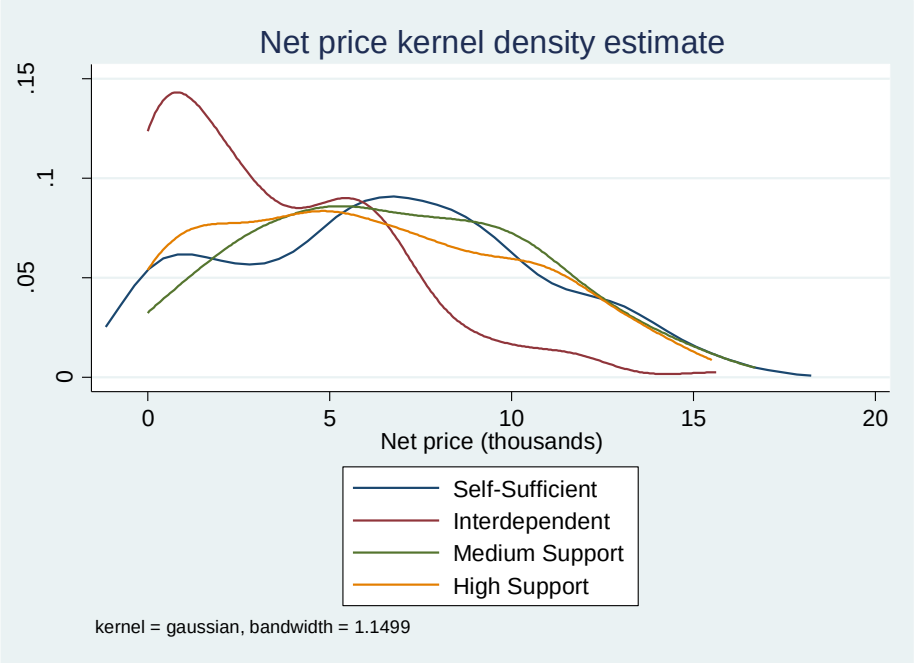


Fig. 2.4: Net price distributions by latent class

If the net price for college cannot be fully covered by assistance from family or wages from work, the student is generally forced to take out loans at varying levels of interest. Federal education loans are offered as part of the student's financial aid package, and include both subsidized and unsubsidized loan types. A wide range of education loans from banks and other for-profit providers are also available to students typically at interest rates far higher than those associated with federal loans. Figure 2.7 presents the latent class distributions of federal loans accepted by students in the sample. As expected based on the lower levels of financial need in the Interdependent group, estimated loans in that group averaged between $1,600 and $1,760 lower than the other three groups. Because the Self-Sufficient group reported almost no financial

support from family, their loan estimates were expected to be much higher. But as Figure 2.5 illustrates, the distributions of federal loan taking for the three groups followed each other closely. This suggests a level of debt aversion among Self-Sufficient students, but also raises the question whether Self-Sufficient students were forced to supplement their federal loans with larger private loans at higher interest rates than their peers in the Medium and High support groups in order to make up for disparities in family financial support. Unfortunately, information on private loans are not available in this study so further research would be necessary to explore this hypothesis.

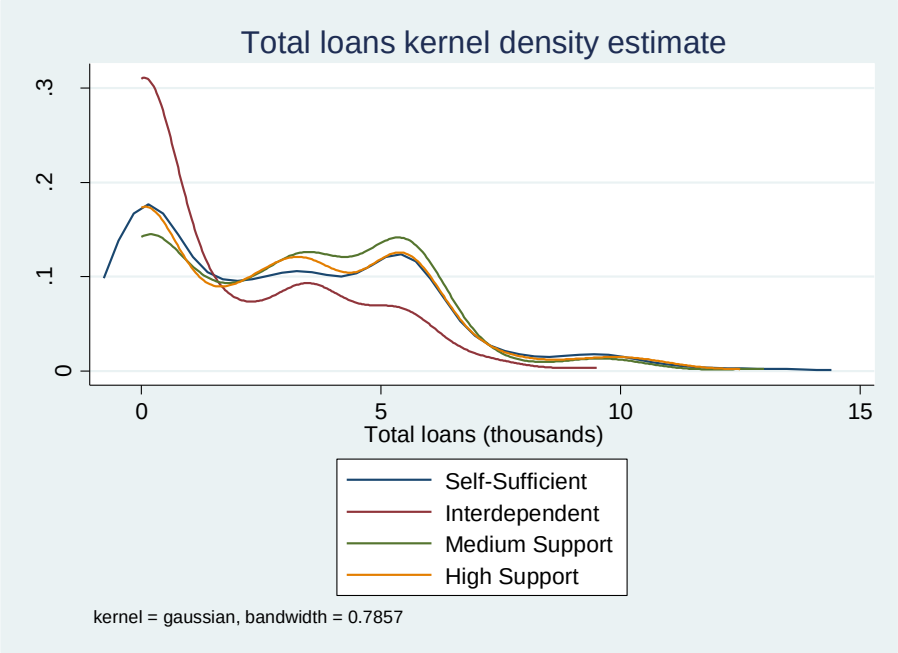


Fig. 2.5: Total loans distributions by latent class

5.3. Step 3: Class membership and first-year academic outcomes

The third aim of this chapter was to examine the relationship between family dynamics class membership and the student's first-year academic outcomes, as well as the relationship between class membership and second-year persistence in college. Table 2.5 presents the estimated means and standard errors for four academic outcomes in the first year—GPA and completed credits at

the end of the first term, and cumulative measures of the same two outcomes at the end of the year. As described previously in the analysis section, all estimates were calculated using the student's posterior probabilities of class membership while also controlling for pre-college academic preparation and unobserved factors associated with the institution of attendance.

First term estimated GPAs ranged from 2.53 for the Self-Sufficient group to 2.73 for both the Interdependent and Medium Support groups. Those GPAs generally stayed consistent within each group over the course of the first year with the exception of the Interdependent group that experienced a small decrease in estimated GPA between the first term and the end of the year. Estimates of completed credits for all four group at the end of the first term hovered around the full-time mark of 12. However, the Self-Sufficient group did fall just below that mark with 11.83 credits completed on average. By the end of the first year, only one group—the Medium Support group—had reached a level of 24 completed credits equivalent to full-time enrollment in both terms.

Table 2.5: Estimated first year academic outcomes

	Latent Class			
(N = 1,051)	Self-Sufficient	Interdependent	Medium Support	High Support
Term 1 GPA	2.53	2.73	2.73	2.62
	(0.13)	(0.15)	(0.14)	(0.13)
Year 1 cumulative GPA	2.57	2.67	2.74	2.63
	(0.12)	(0.14)	(0.12)	(0.12)
Term 1 completed credits	11.83	12.24	12.09	12.10
	(0.45)	(0.53)	(0.48)	(0.47)
Year 1 completed credits	23.32	23.63	24.51	23.70
	(0.90)	(1.06)	(0.95)	(0.92)

Notes: Estimated means weighted by posterior probability of class membership and adjusted for institution and ACT composite score. Standard errors in parentheses.

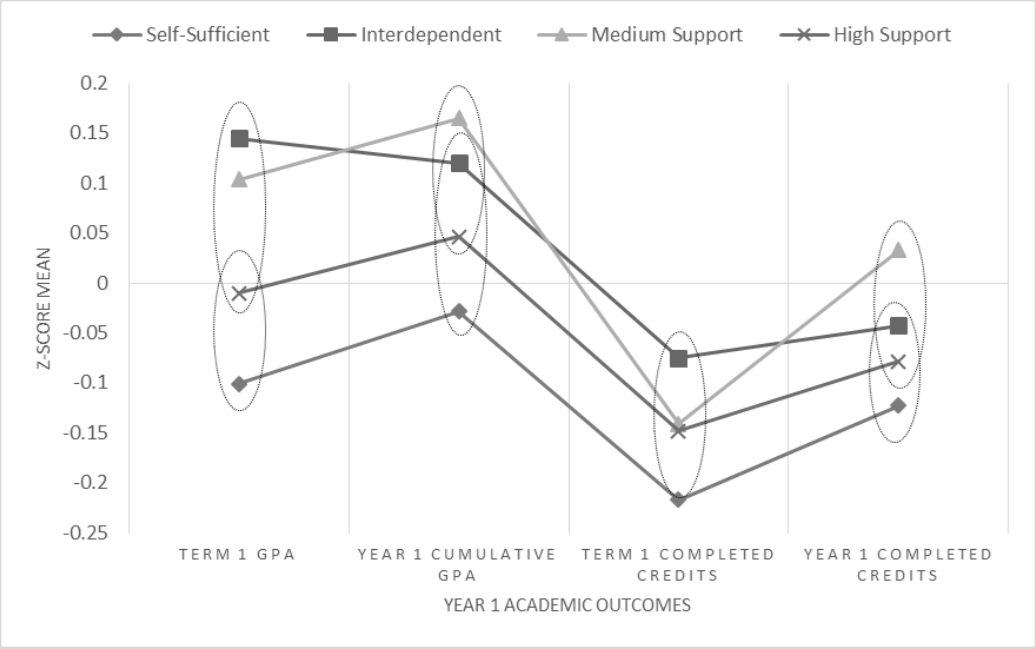


Fig. 2.6: Class membership as a predictor of first year academic outcomes

When all four first-year academic outcomes were standardized and graphed (Figure 2.6) the similarity in trajectories between the classes became even more apparent. Groups sharing the same ellipsis in the graph did not differ statistically on the outcome, while those in different elipses did ($p<.05$). Estimates of both first term and end of the year GPAs for the Self-Sufficient group were significantly lower than the Medium Support group, though the absolute sizes of the differences were relatively small—approximately one fifth of a standard deviation for both outcomes. There were no differences between groups in estimates of completed credits at the end of the first term. However, a significant difference of .15 standard deviations in completed credits between the Self-Sufficient and Medium Support groups emerged by the end of the year.

In order to compare the latent class rates of postsecondary persistence in the second year, [6] predicted enrollment probabilities for the classes were calculated (Figure 2.7). The similarities between the Self-Sufficient and Interdependent groups on one hand, and the Medium and High Support groups on the other, were striking. Although the probabilities of continued postsecondary enrollment were relatively high for all four groups, those for the Medium and High Support groups were 7 to 8 % higher than for the Self-Sufficient and Interdependent groups. Posthoc comparison tests showed that those differences were statistically significant at the α=.01 level. Put simply, students from families characterized by lower levels of emotional support and little or no direct financial support during the first year of college tended to also have a lower likelihood of persistence into the second year net of the student's academic ability and the particular college the student attended. The potential reasons behind this relationship are explored more fully in Chapter 4.

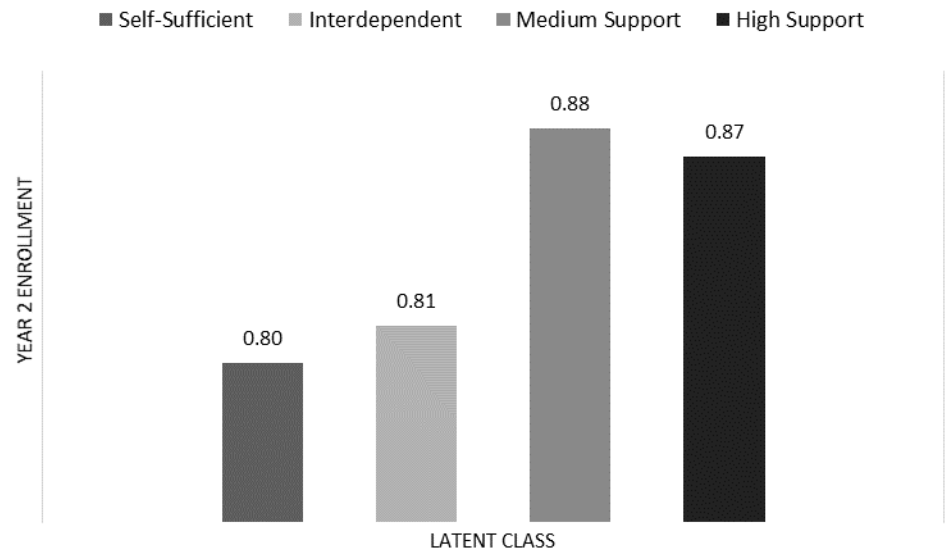


Fig. 2.7: Predicted probability of enrollment in year two by latent class

[6] Persistence defined as enrollment at any postsecondary institution in the fall term of the second year. Students were therefore coded as "persisters" whether they stayed at their original institution or made any type of institutional transfer (i.e. lateral, upward, or downward).

6. Chapter Summary

This chapter represents an important first step in mapping the largely unexplored topic of intergenerational support exchanges among college students from economically disadvantaged families. Results indicate that despite their limited access to financial resources, most low-income parents do instrumentally support their children attending college through a mix of emotional support, direct financial assistance and intergenerational coresidence. Nevertheless, there is also considerable variation in that support, and it is likely that distinct subpopulations exist which can be defined both by the particular level and mix of support they provide to the child, as well the support the child provides the family. Based on the mixture model results, more than a third of the students in the sample—those in the Self-Sufficient group—appeared to receive almost no direct financial assistance from family despite clear need. Further, these students often had responsibilities to their families in terms of financial payments and/or care for relatives. On the other end of the support spectrum, High Support students received a great deal of financial and material support from parents. Yet even among these students, non-financial family kinwork such as care for a relative was common. Interdependent students were perhaps the most intriguing in terms of their specific family dynamics profile. Students in this group tended to be from families with relatively greater financial disadvantage, much like those in the Self-Sufficient group. Yet they differed from Self-Sufficient students in their choice to remain at home and attend college locally. This decision may have been motivated by a realization that they would be unlikely to receive any material support from family if they went away for college, and thus living at home seemed like a good option. However, the high rates of financial transfers to family and care for family members in the Interdependent group also suggest that preexisting kinscripts arrangements may have been more prevalent among these students, which

could also lead to the decision both to remain at home for college and to work more hours during the first year.

It should not be surprising that the family's relative financial strength, as represented by the mean parent income and Expected Family Contribution levels, was associated with family dynamics group membership. Nevertheless, the relationship was not linear but rather indicated a bifurcation of the four groups with relatively poorer students more likely to fall into the Self-Sufficient or Interdependent groups, while relatively more affluent students were more likely to fall into the Medium or High support groups. Yet even though the EFC and family income figures were quite similar within these two broader support groups, levels of support clearly still varied a great deal. Such findings tend to buttress the notion that parental financial support during college may be largely shaped by cultural rather than financial factors (Flint, 1997). Also striking was the considerable variation in levels of instrumental support between the Self-Sufficient, Medium Support and High Support despite their similar net prices of attendance.

The findings in this chapter also make clear that family care and financial responsibilities to family are relatively common among students from low-income families. Students in the Interdependent group were most likely to report such responsibilities, but they were present in all groups including the High Support group. Yet the combination of high family responsibility, high probability of coresidence, and notably higher work hours in the Interdependent group suggests that norms around familism and resource sharing may be particularly strong for those students. Consistent with existing research on coresidence patterns by family income and race/ethnicity (e.g. Britton, 2013, Swartz, 2009), students from immigrant, Asian and/or severely economically disadvantaged families were particularly likely to fall into the Interdependent group.

Finally, simple predictive models controlling for academic ability and the college the student attended showed the family dynamics group structure did not appear to be related to differences in GPA or credit accumulation during the first year of college. It was, however, related to the probability of returning to college the following year. Membership in both the Self-Sufficient and Interdependent group was associated with a significantly reduced likelihood of persistence in to the second year—resulting in probabilities of persistence around 7 to 8 % lower than the Medium and High Support groups.

There are several limitations inherent in the analyses presented in this chapter. Due to the restrictions placed on the sample which were described in the previous chapter, the two-year students were generally underrepresented in these analyses, and therefore important sample variation associated with that group was likely missed which would have allowed a deeper investigation of the Interdependent students in particular. Also, although the reported variables in the latent class profile section did include a measure of family financial assets taken from the FAFSA, underreporting is common which calls into question the reliability of the measure. Further, no measure of overall family debt was available for the sample. Yet debt is likely a significant driver of family dynamics, both in terms of how much support is provided to the students, as well as support the student is providing to the family. Finally it must be noted that the essential purpose of these analyses was exploratory—to venture into the largely uncharted topic of family support exchanges during college. While it is clear that support exchange patterns during college vary a great deal in economically disadvantaged families, the data used in this chapter could provide little insight on the family norms and practices which condition those exchanges. Nor did the chapter explore mechanisms which might link family dynamics to

academic outcomes. Both of these questions are addressed more directly in the following chapters.

Chapter 3
Descriptions of Family Dynamics During the First Year of College

1. Introduction

In the previous chapter, I presented a typology of support exchanges between low-income college students and their families. Among the lessons that emerged was that the traditional one-way model of assistance from parent to child is inadequate to understand the flow of social support within the population of low-income students. It also hinted at a spectrum of family *interdependence* underlying the patterns of exchange. Among the many students in the Self-Sufficient group, for example, material support from parents was notably absent, yet responsibilities to provide support to family persisted. For the Interdependent students, who tended to live at home, attend college locally, work long hours, and have considerable family responsibilities, support exchanges appeared more interdependent. Though they did not have to bear the full costs of housing and food associated with living independently, these students also appeared subject to greater expectations to provide assistance to family in return. And for students in the Medium and High Support groups, the support scales tended to be tipped away from family responsibilities and toward higher levels of material and emotional support from family.

While the previous chapter used survey data to focus on the exchange of resources within families, the analyses in this chapter used student interview data to delve more deeply into the norms and quality of interpersonal relationships that appeared to affect those exchanges. The chapter took a mixed-methods approach by combining interview data with the family dynamics latent class typology presented in the previous chapter. A secondary purpose of the current

chapter was therefore to flesh out that typology, and to examine its validity via data triangulation.

In her *Annual Review of Sociology* article on intergenerational family relations in adulthood, Teresa Toguchi Swartz (2009) wrote that, "sustained contact, feelings of closeness, and familistic norms of responsibility characterize intergenerational family relations in the United States" (p. 196). The analyses in this chapter focused on two elements of her statement as they apply to economically disadvantaged families—the emotional dynamics between young adults and their parents during the first year of college, and norms around obligation and reciprocity prevalent in many low-income and minority families. Prior research on intergenerational exchanges of family support (Minikel-Lacocque & Goldrick-Rab, 2011; Silverstein & Bengtson, 1997) has pointed to these two elements as particularly salient to understanding the exchange of support between low-income college students and their parents.

The analyses in this chapter were guided by the following research questions:

1. How do college students from low-income families describe their family dynamics during the first year of college in terms of:
    a. Their emotional dynamics with parents?
    b. The role of obligation and reciprocity in their family?
2. What are the resources they access from their family?
3. How do their family dynamics affect their college experience during the first year?

2. Emotional Dynamics with Parents

In his landmark exposition of social capital, Coleman (1988) noted that while parents may possess financial and/or human capital, a child's access to those forms of capital is conditioned by the relationship between the parent and child. Intergenerational solidarity theory mirrors and

expands on this notion by predicting that emotional closeness between parents and children facilitates both the receipt and provision of instrumental assistance (Silverstein & Bengtson, 1997). Though other theories argue that parents are motivated to provide support to their young adult children as a "safety net" in times of acute need (Eggebeen & Davey, 1998; Schoeni, 1997), or because they wish to invest in their children as their legacy (K. Fingerman, Miller, Birditt, & Zarit, 2009), research has indicated that as children move into adulthood the quality of their relationships with parents does relate to the levels of instrumental support they exchange (Eggebeen, 2005; Rossi & Rossi, 1990; M. Silverstein, 2006). In particular, young adults report receiving more assistance from parents in the forms of advice, intermittent monetary gifts, and practical assistance when the relationship is a close one (Rossi & Rossi, 1990; Eggebeen, 2005).

Nearly a third of the students in the study sample came from single parent households headed by the mother. Research suggesting that the mother-child relationship is important to intergenerational support is therefore particularly relevant. In general, mothers have greater relationship involvement with their grown children than fathers (McHale, Crouter, & Whiteman, 2003). Closeness to mothers has also been associated with higher levels of financial support during young adulthood (K. L. Fingerman, Cheng, Tighe, Birditt, & Zarit, 2012; Swartz, Kim, Uno, Mortimer, & O'Brien, 2011), as well as housing support (Swartz et al, 2011). Emotional closeness to fathers, on the other hand, has been shown to decrease the odds of housing support during young adulthood (Swartz et al, 2011), perhaps because norms of financial independence from family during the transition to adulthood are stronger among fathers than mothers.

Studies of the relationship between parent-child closeness and intra-family resource exchanges have not typically addressed differences by social class. Some research has suggested that parent-child relationships in severely economically disadvantaged families may suffer due to

a greater tendency toward open discussion of family stressors (McLoyd & Wilson, 1992), or use of punitive disciplinary styles (Sampson & Laub, 1994). However, both of those studies focused on the relationship between low-income parents and younger children. More recent evidence indicates that the relationship between young adults and their parents appears to be generally close across social classes (Fingerman et al, 2012).

3. Family Obligation and Reciprocity

An extensive body of research on low-income and minority families in the United States has revealed prevalent norms of obligation and reciprocity which tend to bond families together through a collective orientation characterized by multidirectional exchanges of support among family members (Andrew J Fuligni & Pedersen, 2002; Andrew J Fuligni et al., 1999; Andrew J. Fuligni & Telzer, 2013; Phinney, Ong, & Madden, 2000; Stack, 1975). Whether these norms are primarily cultural or induced in response poverty, however, is open to some debate (N. Sarkisian & Gerstel, 2004). A long history of research has focused on Hispanic familism, whereby individual interests, decisions, and actions are conditioned by the needs of parents and other relatives thought in many ways to take priority over the individual (Okagaki & Frensch, 1998). Research has shown that Hispanics value family interdependence, support, and obligations more so than whites (Andrew J Fuligni et al., 1999; Harrison, Wilson, Pine, Chan, & Buriel, 1990). Hispanics also report assisting family members more so than whites (Natalia Sarkisian et al., 2007). Similar patterns of obligation and reciprocity have also been observed among Asian and African American families (Ishii-Kuntz, 1997; N. Sarkisian & Gerstel, 2004; Natalia Sarkisian et al., 2007). On the other hand, structural resiliency theorists such as Carol Stack, who formulated the kincripts framework which guides this study (Stack & Burton, 1993), have focused on family reciprocity, obligation and resource sharing as responses to poverty rather than qualities which

are culturally inherent per se. In this conception, obligation and reciprocity are by-products of a resource sharing ethos which helps the family make ends meet in the face of economic hardship. Such a view has been supported by research that found socioeconomic status rather than race was the primary driver of kin support (Sarkisian & Gerstel 2004).

Regardless of whether the roots are cultural or structural, norms of obligation and reciprocity have been shown to yield psychological benefits to family members. For most people, family membership is at the core of their social identity (Fuligni & Flook, 2005). We place value on, and are valued for, being a part of our family group. From this perspective, our sense of obligation to family plays an important social role by bonding us to family members and imparting meaning to our role within the family. Responsibility to family during adolescence and young adulthood may therefore be perceived not only as helpful, but also meaningful by allowing children to establish themselves as respected and valued members of the larger family (Fuligni & Flook, 2005). Research on immigrant families, for example, has shown that providing instrumental assistance to the family is often considered an important marker of the transition to adulthood (Swartz, 2009). And recent research using biomarkers and MRI scans of brain activity has revealed that adolescents often feel a profound sense of personal reward rather when they provide assistance to their family (Fuligni & Telzer, 2013; Fuligni et al., 2009; Telzer, Masten, Berkman, Lieberman, & Fuligni, 2010).

Recent research has emphasized the distinction between current versus future obligations to family. In one longitudinal study, researchers found that as adolescents make the transition to adulthood, their sense obligation to provide current assistance to family tends to decline while their sense of obligation to provide future assistance stabilizes (Tsai, Telzer, & Fuligni, 2013). They attributed this pattern in part to their sample of college students who, they speculated, may

have had limited availability to assist with family household tasks or spend time with family while attending college (Tsai, Telzer & Fuligni, 2013). Indeed, at least one prior study has demonstrated that children from immigrant and ethnic minority backgrounds view attainment of a college degree as a way to honor and assist their families in the future (Phinney, Dennis, & Osorio, 2006). Crucially, however, the study did not examine change in levels of family obligation as a function of either family income or place of residence during young adulthood despite evidence that current assistance between family members is more common in situations of economic hardship and/or intergenerational coresidence (Domínguez & Watkins, 2003; Gerstel, 2011; Stack & Burton, 1993).

4. Data and Methods

4.1. Sample

This chapter draws on a mixture of qualitative and quantitative data from the Wisconsin Scholars Longitudinal Study (WSLS). In this chapter I focus on a subsample of 34 students who were drawn from the larger dissertation analytic sample, and who participated in 1-2 semi-structured in-person interviews (Fontana & Frey, 2005) during their first year at college. The first interview was conducted at the end of the student's fall term, and the second at the end of the spring term. Students in the larger WSLS study were asked to participate in interviews, and from the pool of those who consented WSLS researchers[7] drew a stratified random sample based on the college they attended, whether or not they were receiving a specific financial aid grant (the focus of the larger WSLS study), race/ethnicity, and gender. That stratification resulted in the creation of a "cell" structure classifying the students at six colleges (four public Wisconsin

[7] The author of this dissertation was involved in all aspects of the qualitative portion of the parent WSLS study, including subsample selection and interviewing.

universities and two public Wisconsin technical colleges), and a random sample was then drawn from within cells (Edin & Lein, 1997). Researchers then invited 73 students to participate in interviews and 50 agreed, resulting in a response rate of 68.5%. Because 16 out of the 50 students: a) did not grant the WSLS researchers rights to use their administrative records, or b) did not take the ACT exam, they were excluded from the analysis in this chapter which relies on quantitative data from these sources as part of its mixed-methods approach.

Table 3.1: Descriptive characteristics of analytic and interview samples

	Analytic Sample *(N=1051)*	Interview Sample *(N=34)*
Attends two-year College (%)	27.9	17.7
Lives with family (%)	29.7	29.4
Female (%)	61.9	50.0
Race/Ethnicity (%)		
White	73.9	38.2
Hispanic	4.9	23.5
African American	7.8	14.7
Asian	10.3	17.7
Other	3.2	5.9
Immigrant (%)	14.6	32.4
Two-parent household (%)	51.1	50.0
First generation college student (%)	57.2	41.2
Combined ACT score	21.1	20.8
Work hours/wk	15.58	12.12
Parents' gross income ($K)	27.7	27.9
Expected family contribution ($K)	1.4	1.7
Zero expected family contribution (%)	32.8	20.6
Latent Class Membership (%)		
Self-Sufficient	34.2	47.1
Interdependent	15.2	20.6
Medium support	18.8	14.7
High support	31.8	17.6

Notes:

(1) Interview Asian group is predominately Hmong but also includes one East Asian and one South Asian.
(2) Immigrant defined as both parents born outside the United States and/or student born outside the U.S.
(3) Latent classes determined using highest posterior probability of class membership.
(4) Significant differences across samples ($p<.05$) are white, Hispanic and immigrant.
(5) Fisher's exact and Mann-Whitney-Wilcoxin tests used for sample comparisons.
(6) Reported average work hours/wk. for employed students only.

Table 3.1 compares the analytic and interview samples along a number of key characteristics. In general, the two samples appeared very similar with a few notable exceptions. Because the WSLS research team intentionally chose to oversample non-white students when constructing the interview sample, interviewees were far more likely come from non-white and immigrant[8] families than students in the larger analytic sample. They were also somewhat more likely to be male and attend a four year college, and somewhat less likely to be first generation college students, though none of these differences reached statistical significance.

Although the overall distributions among family dynamics classes were roughly the same between the analytic and qualitative samples, students in the qualitative sample were somewhat more likely to belong to the Self-Sufficient group, and less likely to belong to the High Support group. An examination of family dynamics class distributions by race/ethnicity in the qualitative sample (figure 3.1) revealed that most white and Hispanic interviewees fell into the Self-Sufficient category, while African American and Asian students in the sample were most likely to be in the High Support group. Asian students were also frequently categorized in the Interdependent group, while African American students were equally likely to fall into the Self-Sufficient, Interdependent, or Medium Support categories.

[8] All Asian students in the interview sample also came from immigrant families. Two thirds of the Hispanic students in the sample came from immigrant families.

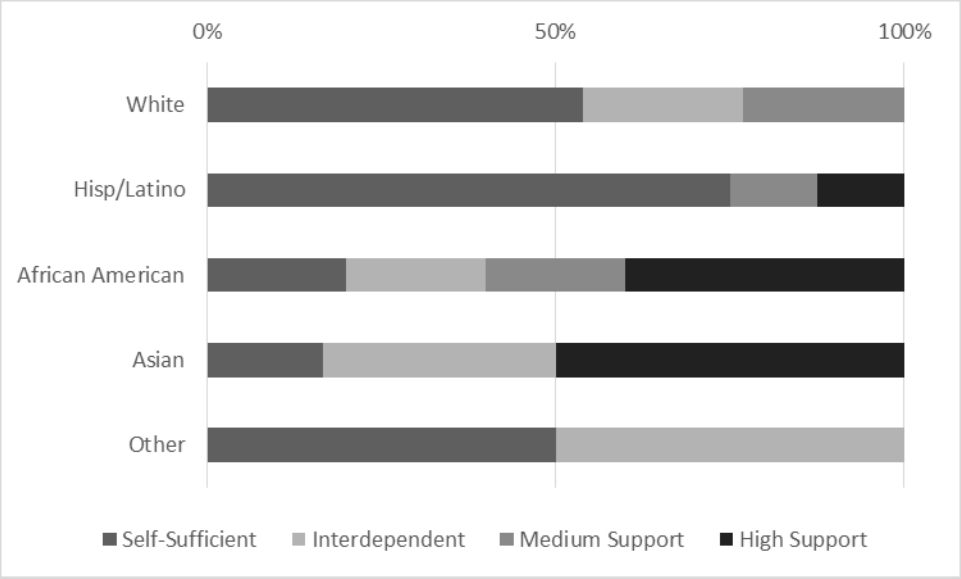


Fig. 3.1: Qualitative sample family dynamics class distributions by race/ethnicity

An examination of first-year living arrangements among the qualitative sample (figure 3.2) revealed that more than half of the African American interviewees reported living at home during their first year at college. The high rate of family coresidence among the African American interviewees coupled with their relative economic disadvantage[9], suggests that living with family was primarily motivated by economic need and was not necessarily associated with higher levels of family responsibility. Nevertheless, consistent with findings from Chapter 2, nearly three out of four students in the Interdependent group did report living with family, while half of those categorized in the high support group did so as well.

[9] The average EFC among the African American interviewees was $750 compared with $1,850 for the White interviewees, $1,290 for the Hispanic interviewees, and $1,970 for the Asian interviewees.

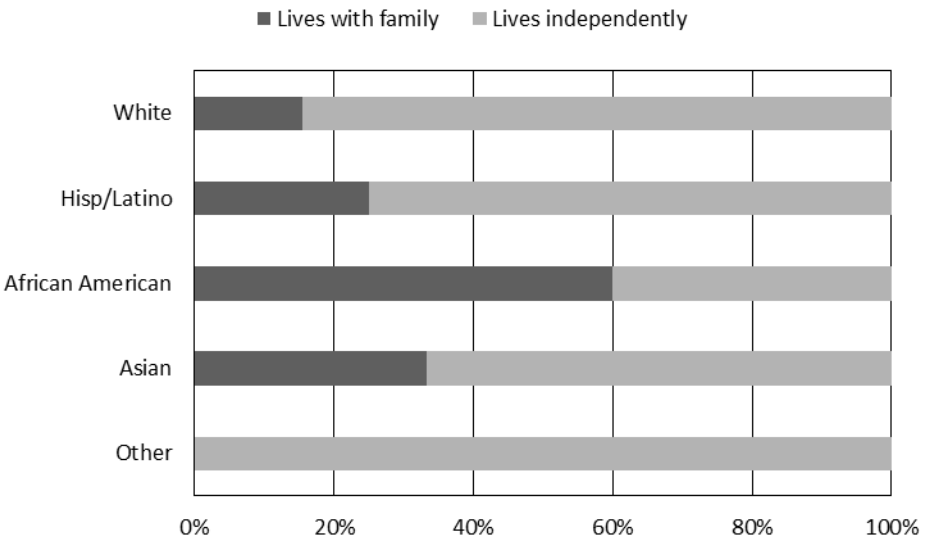


Fig. 3.2: Qualitative sample living arrangements by race/ethnicity

4.2. Interview Procedure

For each interview, the WSLS research team[10] followed protocols containing questions on a broad range of topics including college, family, work, time use, and finances (see Appendix B) Although topics of conversation were guided by predetermined questions, interviewers purposefully engaged the participants in semi-structured interviews; in other words, they used open-ended questions whenever possible, and when appropriate they followed the participants' lead in terms of the direction of the conversation. Interviewers paid particular attention to the affective nature of the interview, rather than strictly to the subject content. This approach allowed for themes to emerge organically from the conversation rather than limiting the interviews solely to our prescribed topics of inquiry. The interviews lasted an average of 90 minutes, and were conducted in public spaces. Each participant received $20 in compensation and was treated to a beverage and snack/meal each time an interview took place.

[10] The author was an active member of the WSLS interview team and contributed to the development of interview protocols, as well as conducted interviews with seven of the students in the study sample.

4.3. Design and analysis

This study uses a mixed methods research design in order to explore the family dynamics of low-income college students more deeply by triangulating student interviews with the latent family dynamics classes identified in the previous chapter. The two types of data were combined in order to gain a more nuanced picture of family dynamics among low-income college students, as well as to enhance the validity of the identified class typology via corroboration, or to reveal areas requiring further exploration via mismatch. By leveraging both types of data, the chapter aims to provide a more comprehensive account of family dynamics, thereby laying the foundation for theory-building, and highlighting further areas for inquiry (Bryman, 2006). Although there are many types of mixed methods research designs, the study was guided by what Creswell & Clark (2011) call a *convergent parallel* design. In this design, the researcher analyzes both the quantitative data (QUAN) and qualitative data (QUAL) during the same phase of the research process, and then merges the two sets of results into an overall interpretation. Interpretation of the merged results then focuses on areas of convergence, divergence, and how understanding of relationships can be expanded. The primary purpose of the convergent parallel design, as noted above, is to use different but complementary data on the same topic to provide a more complete understanding of the topic. The design focuses on triangulation of QUAN and QUAL findings via direct comparison, and QUAL data is often used to illustrate QUAN results.

Interviews were transcribed verbatim and were entered into Dedoose—a web-based software program specifically designed for mixed methods research (Dedoose, 2012). To facilitate comparison of QUAL and QUAN findings while also allowing understandings to emerge from the qualitative data, I adopted a hybrid approach to interview coding. I first performed limited initial coding of student interviews using a blend of a priori "parent" codes based on survey

measures used to identify latent classes. These included emotional and material support from parents, as well as codes related to the kinscripts theoretical framework such as kinwork and kintime (Stack & Burton, 1993). I then engaged in a cyclical process of data reduction, data display, and conclusion-drawing (Miles & Huberman, 1994). Working together with a second analyst—a graduate student in counseling psychology—I first reduced the data by reading through the interview transcripts and associated field notes. By extensively using the tools of regular analytic memos and discussion, we developed a more extensive formal coding structure over the course of a number of months that was based on emerging patterns and themes in the data (see Appendix C). A test of inter-rater reliability at the end of this process revealed a high degree of coding consistency between the two of us (Kappa=0.78). After reducing the data, I entered select quantitative measures collected from the interview sample into Dedoose, including each student's latent class membership. With the help of Dedoose mixed-methods analysis tools I created a matrix data display of the pertinent data, which is an "organized, compressed assembly of the information that permits conclusion drawing and action" (Miles and Huberman, 1994, p. 11). Particularly helpful in this task were Dedoose functions that allowed the visualization and exploration of code co-occurrence patterns, as well code distribution patterns by demographic or latent class categories. After drawing initial conclusions, I performed a more extensive review of relevant research literature on family emotional dynamics, obligation and reciprocity. This review further illuminated themes emerging from the data, and helped my colleague and I to further refine the coding structure, data display and conclusions in turn.

5. Findings

5.1. Emotional Dynamics with Parents

Most students continued to rely on their parents to a considerable degree for emotional support and guidance during the first year at college. A supportive relationship with parents, particularly with the student's mother, was the norm in the sample and helped ease the psychological adjustment to attending college and living away from home for the first time. When asked how often she spoke to her mother on the telephone, Celina[11], a young Hispanic woman attending a four-year college replied with a laugh, "…oh, I talk to my mom every day. Multiple times a day…It's her calling me a lot (laughs). And I'm forced when I miss her calls to call her [right] back…but it's also a good thing. I'm not as homesick. So it's different, it's a big change for me."

Nevertheless, interviews also revealed that emotional relationships with parents were frequently complex, leading to feelings of ambivalence on the part of some students. Melanie, a white student who was the first in her family to attend college, described the weight she felt due to her family's high academic expectations. "…they all really expect me to succeed [because] I'm the first one and everyone is so proud of me, and I kind of feel like I have to do it in a way to like fulfill what they want. But I know it's good for me too." Nima, a young South Asian student living at home and attending a local two-year college, dreamed of becoming a graphic designer. Yet she faced constant pressure from her parents and older brothers to go into nursing as a way to find employment and generate income more quickly for herself and her family. This caused her considerable psychological anguish as she wrestled with the choice to break from her family and pursue her own path, even if it did not guarantee steady employment.

[11] All names are pseudonyms.

Other interviewees described feeling constrained in what they could share with their parents when they spoke with them. As noted earlier, nearly half of the students in the interview sample were the first in their family to attend college. A long history of research on first-generation college students has revealed that this often translates into feelings of social isolation because parents are unable to fully understand and relate to the student's college experience (London, 1989; E T Pascarella et al., 2004; Pike & Kuh, 2005). As Molly, a young white student attending a four-year university and living in the dorms during her first year, put it:

> *Yeah, um, (laughs) I mean sure, my mom's great. I talk to her, I tell her everything. But how much can she understand? I mean she's not here, she's never been to college, she's, you know, my 45-year-old mother. I mean I would tell her anything but there's not much that she can say back.*

Students also told of significant financial and personal struggles faced by their parents that colored their relationship with them during the first year. This sometimes meant the student intentionally avoided discussion of stressful situations with parents who were undergoing personal or financial struggles in order to spare them further emotional burden. When asked what he talked about when he called home to his mother who was disabled and therefore unable to work, Roberto, a Hispanic student attending a four-year college, expressed feelings of resignation that some topics of conversation with his mother were simply off limits. "I don't talk with my mom a lot about financial stuff. Just because [she] doesn't have a lot of money either and there's not a lot that she can do about my financial situation here at college." Other students living away from family during the first year of college expressed actual feelings of relief they had some distance from their parents' financial and personal stresses. Peyton, a Native American female attending a four-year college, described what it was like to go home to visit after her father was lost his job during her first semester at college. "When it came to [going] home on the weekends I was so worried… you just feel like it was a mopey house and strenuous, stressful and

I'm like ok I'm ready to go back to school and get out of the atmosphere like it was almost like an escape."

Though Molly, Roberto and Peyton all generally described their relationships with their parents as close, all three were part of the Self-Sufficient group, which meant they received little to no financial or instrumental support from parents. The constraints they felt in fully sharing their own experiences with their parents appeared to limit the level of emotional support they could derive from the relationship. Although none of them explicitly said so, the resulting emotional distance may have represented a formidable psychological barrier to seeking critical help from their parents if the need arose.

Students from the Medium and High Support groups also reported financial stressors and personal challenges faced by their parents. And like the Self-Sufficient students described above, financial topics were often off limits in conversation with parents. Critically, however, it was the parents in the higher support groups who actively avoided financial discussion as a way of sparing the student psychological guilt over the family's financial sacrifices to support their child. One male Asian student, Min Kyung, talked about how his father had to take out private loans so that Min could attend university. When asked how much his father had borrowed, Min replied, "I don't know that…we never discuss money whatsoever. My dad doesn't want money to be the factor of everything, but obviously I know that they're struggling. I can clearly tell." Celina also expressed her mother's reluctance to discuss money. "…she doesn't really want to talk about financial struggles and stuff, because it's like she doesn't want to put that burden in my head. She doesn't want me to have to worry about that." Such parental concerns over the potential for family financial stress to have negative psychological effects did not seem to be unfounded. A number of students expressed feelings of guilt, both about their own spending in

college, as well as their inability to help their family more as a result of living away. Molly, whose mother worked two waitressing jobs while her long-term unemployed father battled with depression, expressed feelings of guilt at not being able to help more.

> *Interviewer: Do you have anybody that you can talk to about personal stuff…like any friends?*
>
> *Molly: (sighs) That's kind of why I was stuck in my room, my dorm after a while. It's because not only was I lonely but I felt guilty, almost, because like oh my god, I'm here. And my family is still struggling back and home and my boyfriend is mad that I'm here…*

For a small number of students who were interviewed, financial or personal struggles faced by their parents led to greater emotional closeness because the parent relied on the student for emotional support. This was especially common among students from single parent households where the student often served as an emotional surrogate for the missing parent—what Linda Burton refers to as spousification of the child (Burton, 2007). For Troy, a white student attending a four-year university, the role of emotional caregiver for his mother was one he assumed in high school after his parents' divorce, but which he continued during his first year of college when his mother moved residences in order to be closer to him after the sudden death of a man she was dating.

> *Interviewer: How would you say you help your family or support them?*
>
> *Troy: I've been there for my mom emotionally. She actually was dating someone a little while ago and they went skydiving, because that's how they met. Then they went skydiving again and he was separate but his parachute didn't open. And they're pretty sure a heart attack or something, they're not sure because he couldn't have the strength to pull it….that was an emotional upheaval in her world so…*

During interviews, Troy was consistently supportive of his mother, never expressing resentment. Nevertheless, Burton did find that relationships such as the one between Troy and his mother can place a heavy psychological and emotional burden on the child in the form of extra anxiety and

stress, which in turn can affect both academic performance and the development of peer relationships in school (Burton, 2007).

5.2. Family Obligation, Reciprocity and Kin Support

Other analyses of WSLS interviews have identified patterns of financial and time support from students to their family during college rooted in norms of family obligation and reciprocity (Minikel-Lacoque & Goldrick-Rab, 2011). The findings presented in this section, though based on my own follow-up analyses of the interview data, were inspired and guided by that work. Throughout the section I discuss notable relationships with the quantitative findings from the previous chapter.

Many interviewees expressed a strong sense of obligation to "give back" to their parents and family in return for the many sacrifices the parents had made for the student. Consistent with prior research, reciprocity and obligation to family was expressed in both present and future terms, and was more common among the Asian, Hispanic and African American students in the sample, as well as among those from immigrant families (Fuligni et al., 1999; Stack & Burton, 1993; Tsai et al., 2013). Anne, an African American woman who lived with her mother in subsidized housing while attending university, described her own feelings of obligation by saying, "[My mom] raised me for all these years on her own and I just feel like that's the least I can do to help her out. I mean I know…I don't have to, but I just feel like that's the least I can do…" Nima also expressed similar sentiments: "It's like in our culture—the parents carry you until you are good, and then you take care of them."

As Nima's quote illustrates, feelings of obligation to give back to parents were often described by interviewees in highly normative terms as a set of shared cultural beliefs and values instilled within family members. Some researchers have suggested that such cultural beliefs,

which are sometimes referred to as 'familism', have their roots primarily in social class as a means of pooling family resources in order to get by in the face of economic hardship (Gerstel, 2011). The interview data, however, provided mixed evidence for this. On one hand, interviewees from Asian families were by far the most likely to describe feelings of family obligation despite the fact that they were the most financially well-off as reflected by their relatively high average EFC (see Section 4 above). Nevertheless, many students did indeed describe their sense of obligation in terms of directly contributing to their family's economic well-being. Ian, an African American student attending a four-year university, described how he learned lessons about reciprocity from his father.

> *[My father] just went over it with me, like, 'You're supposed to always look out for your family, no matter how much money you got. If you got a dollar or something, you know, if there's four of them and they need something you give them a quarter a piece.'*
>
> *That's how we supposed to be raised…that's how he raised us…and ever since then that's how I've been trying to do it. You know, whenever I come across a…it don't have to be much—as long as I come across a certain amount of money that can benefit me and my family, I'm going to try to do that as much as possible*

Many students in the interview sample who spoke of their obligation to family described it in current terms. This often meant providing instrumental support to their parents and other family members in the form of financial and/or time contributions to ensure the family's well-being. Within the family kinscripts framework, such contributions are referred to as 'kinwork'—the collective labor expected within family networks to ensure its survival (Stack and Burton, 1993). Figure 3.3 below illustrates how frequently interviewees described incidences of financial and time kinwork by their race or ethnicity.[12] Such incidences were particularly common among Asian interviewees, and to a lesser extent among African American and Hispanic interviewees.

[12] Figure is weighted to account for differential number of interviews by race.

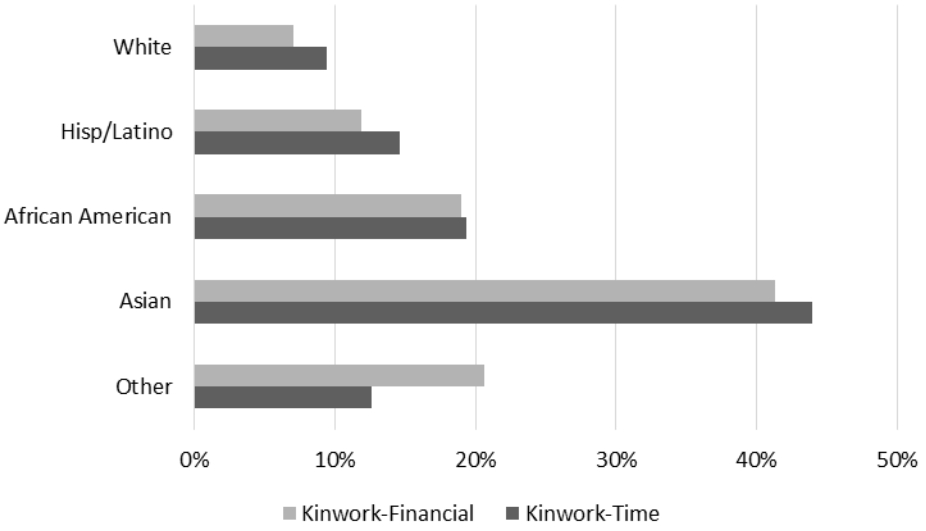


Fig. 3.3: Frequency of kinwork discussion by race/ethnicity

Consistent with findings from the previous chapter, kinwork discussions were far more common among interviewees in the Interdependent group than those in the other three groups. Also consistent with findings from the previous chapter which showed significantly higher rates of employment and hours worked among Interdependent students, Interdependent interviewees tended to discuss work[13] at higher rates than their peers from other groups. The relative frequency with which interviewees from different family dynamics groups discussed both kinwork and employment is illustrated below in figure 3.4. In this figure, frequency of financial kinwork discussion is graphed on the x-axis, while frequency of time kinwork discussion is graphed on the y-axis. The size of each circle represents the relative frequency of discussion about work. As the figure makes clear, Interdependent students far outpaced their peers in how often they talked about kinwork in their families.

[13] Interview passages were given a 'work' code if the student discussed past or present paid employment. Passages describing volunteering were not given a work code.

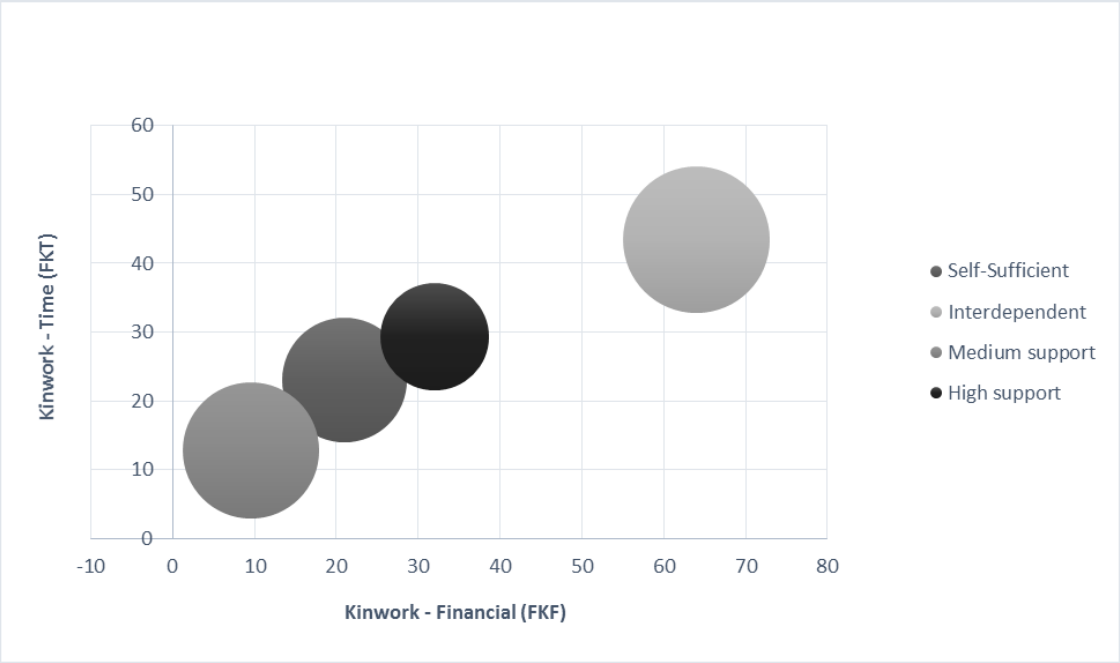


Fig. 3.4: Frequency of kinwork and employment discussion by latent class membership

Elaboration on this apparent relationship between kinwork and employment among Interdependent students was provided by Tou, a young Hmong man who lived at home with his parents, uncle and six siblings while attending a four-year college close to his home. Tou described his own need to work while attending college in order to provide financial support to his family.

> *My dad makes me work part-time. I want to work full-time but he says it'll be too hard [while I'm attending college] …Every time I'm not going to school he would let me work full-time to pay the bills and stuff. But you can tell, he doesn't want you to, he wants you to go to school. But sometimes he has to. Yeah, that's what I hate the most.*

For other students, work during the first year was unplanned but motivated by unexpected family needs. Tyler, a young white four-year student who lived with his disabled parents during his freshman year, did not plan to work but was forced to do so after having to use part of his financial aid package to help his father pay off his own loans. This ended up causing considerable strife between Tyler and his father. Such situations where interpersonal conflict is

rooted in family financial kinwork may help to explain why emotional support in the Interdependent group was estimated to be the lowest of the four latent family dynamics classes.

In addition to providing direct financial support to family, students also described their responsibility to provide regular care and supervision of younger siblings, sometimes for many hours each week. For Tou, this meant his daily routine included shuttling his younger siblings between school, home and work, as well as babysitting his infant cousin. For Cocoa, an African American woman living with her mother, sister, and her sister's four children, it meant having to help support her sister by caring for her nieces and nephews. When asked how things would be different if she lived on campus, Cocoa stated with a sigh, "More for me. I'm gonna get enough sleep and not be bothered by little kids, and just have privacy."

Nearly all interviewees categorized in the Interdependent group lived at home with family during their freshman year. These students often highlighted family financial constraints as the main factor in their decision to stay at home. Yet the decision wasn't simply motivated by a desire to save money, but also stemmed from established norms of family obligation and reciprocity. Tou described his own decision to live at home in terms of "communal" family norms in which he 'owed it' to his uncle and older sister who had already taken their turns caring for younger family members (including Tou) while they pursued college.

Interviewer: Are you planning on living at home next semester too?

Tou: Yeah basically throughout the whole four years until my dad says ok you can go now. I had a lot of offers from friends you know…all of us renting an apartment. But that would be unfair for my sister and my uncle because they had to stay through the whole four years. If I leave it's going to break that chain…I can't go pick [my younger brother and sister] up and stuff you know. I can't drop them off here. I remember when I was small my uncle had to do it and my sister did all that stuff, and then now it's my turn. Then it's going to be my brother's turn.

Research has indicated that younger children systematically receive greater schooling investments from their parents than their older siblings (Haider & McGarry, 2012). Tou's experience expands on this notion by also suggesting that younger children may systematically experience lower levels of financial and time kinwork during college than their older siblings.

The assumption of adult provider and caretaker roles within the family was not new for most students reporting kinwork during college, but rather had begun in high school or earlier. Bethany, an African American university student with five younger siblings told of her mother's cancer diagnosis when Bethany was in high school. She described having to work thirty-five hours a week at two jobs from the age of 16 in order to support the family, which meant a transition to adulthood marked by greater social isolation than her peers. When asked if she had any friends who had helped her, Bethany simply replied, "I didn't have time to make friends. So I studied, kept to myself, went to work, came home, took care of the kids. Went to sleep if I got a chance to." For Bethany and other interviewees, the habit and mindset of doing kinwork was already deeply ingrained by the time they entered college.

As figure 3.4 above illustrates, High Support students also frequently discussed feelings of obligation to family and the desire to provide support. They differed from their Interdependent peers, however, by being more likely to talk about obligation in future rather than present terms. Ian described it this way, "…I got to help my mother out. And the only way I see helping her out is if she sees me going to high school and college and passing and getting money and everything like that." Celina expressed similar sentiments when asked to describe her desire to give back to her mother—a woman who had raised Celina by herself since Celina was a baby.

> *Celina: And so I already decided when I graduate I was going to provide her everything. She would help me through, you know, so I'm going to try to make her life like better than mine was.*

Interviewer: So is that a big motivating factor for you to give back to your parents or your family in general?

Celina: Well yeah. I would give back to my mom in general because I've seen her struggle her whole life. And it's like something that I didn't want to see. So if I can help her in any way, now that I have money, now that I have what I graduated for, I can give back…you know to thank her for how much she did for me.

Indeed, sense of obligation to family was often perceived by interviewees to be less of a burden than an important source of motivation to work hard in college and succeed in the transition from college to work. Kia, an Asian woman attending a four year college, described it as a matter of maintaining parents' trust. When asked what she considered when she was tempted to skip class and go out with friends she replied, "…what my parents would think. I don't think my parents would trust me. I know they trust me to come here and make the right decision, but I don't want them to mistrust me, I don't want them to find out anything bad all of a sudden." Based on accounts from this sample, it therefore seems clear that sense of obligation to family during college can act as a double edged sword by providing important academic motivation, but also erecting potential barriers to academic success if obligation manifests as pressure to provide current financial or time support to family.

5.3. Non-Financial Support from Family

Students in the interview sample identified a variety of ways they received important forms of non-financial support from parents which helped ease the transition to college. Perhaps the most commonly cited of these was motivation and encouragement to persevere when the going got tough. When asked how her family helped her, Kia described how important her parents' encouragement was to her.

When it gets really, really hard my parents are just like, "Oh just keep at it, just keep going to class, it'll be fine or you'll do better" and stuff like that. And I think that's just

> *one of the main things that keeps me studying and going. They listen to me when I need to talk to them. If ever anything's going really, really bad and I'm doing really horrible, then they just listen….I think encouragement is probably the biggest thing.*

For Kia, hearing her parents' words of encouragement, and sharing her own troubles without fear of judgment helped her find resilience when confronted by the inevitable academic and social challenges she faced during her first year at college. These sentiments were repeated by many of the other interviewees as well. In the research literature, this sense of resilience in the face of adversity has been variously termed self-efficacy (Bandura, 1994) or grit (Duckworth, Peterson, Matthews, & Kelly, 2007), and has been shown to be an important trait in the postsecondary academic success of disadvantaged students (Strayhorn, 2013).

Many interviewees also reported family assistance completing the Free Application for Federal Student Aid (FAFSA)—the application form for federal financial aid including the Pell Grant and other need-based aid. However, among first-generation students it was often older siblings or extended family members rather than parents who provided the assistance. Ian's older brother, who was already attending college, helped him to fill out his FAFSA. One of Nima's older brothers also helped her complete the FAFSA since her mother's limited English ability precluded her from helping Nima. In other cases, aunts or cousins provided the assistance. For a few students, strained or distant relations with parents presented a formidable barrier to applying for financial aid by making it difficult to get financial information from their parents required to complete the FAFSA. For example, Matt, a white four-year college student with an emotionally distant relationship with his parents, had considerable trouble getting any tax return information from them by the January priority deadline to be eligible for maximum aid. He finally took matters into his own hands. "I had to nag them and nag them. So I just figured I might as well just do it. I got their tax forms and I [filled them out] by myself because I knew it would happen

sooner rather than later." In Cocoa's case, her mother's mistrust and reluctance to provide her personal financial information had actually forced Cocoa to postpone college for a year after high school because she wasn't able to complete the FAFSA in time to receive the aid she needed. Even after she had started college the following year, Cocoa continued to have trouble getting her mother's information.

Interviewer: Did you do the FAFSA on your own for this year?

Cocoa: Yup. I might have to go to my mom and say, "Mom, I need your social security number." She like, "I don't give my stuff out to nobody." So that was a difficult type of challenge.

Though students from all family dynamics classes reported FAFSA assistance from parents and family, those from the Medium and High Support groups were notably more likely to describe the assistance as help accessing non-family informational resources. In one example, James, a young black student, reported his mother actually taking him to a free FAFSA workshop offered by the local college during his senior year in high school. Through his work as a church pastor, Min's father was able to secure the help of a young member of his congregation who was a recent graduate of Duke University to help Min complete his financial aid application.

Students also frequently described financial management support from their parents during the first year of college. A number of students reported sharing bank accounts with their parents who actively managed their finances including money the student had earned through work or was granted through financial aid. Tou conveyed a sense of gratitude that his father managed Tou's finances and limited his spending. "My dad loves to balance stuff out and we let him manage all our [bank accounts]. If it wasn't for him I would probably have nothing in my account maybe just a grand or something." Similarly, Peyton described how thankful she was that her mother managed and carefully monitored the account where she deposited money from

her financial aid award. “So it’s in there kinda locked [up]. [My mom] is like, ‘I’ll allow you to take it out when the bill comes’, so [I’m] pretty lucky with that.”

Students generally reported little informational support from parents about college academics or how to navigate the institutional landscape of college—what is sometimes referred to as “college knowledge” (David Conley, 2005). That did not mean, however, that such support was completely lacking. In many cases older siblings or extended family who had already gone to college were valuable sources of information both in the college choice process, and after enrollment in locating campus resources. Jay spoke of his older sister’s help to guide him away from an expensive private college he was considering because she had heard from friends at the college that the quality of teaching was low. And Pao, a Hmong technical college student, told of his cousin’s help putting him in contact with a campus multicultural advisor who ended up providing considerable help to Pao over the course of his first year.

> *Interviewer: And how did you find her? How did you know about the multicultural advisors?*
>
> *Pao: Ah my cousin. He went here two years, and he told me to call [name of multicultural advisor]. She gave me information how to register and how to apply. So she’s the one that got me started.*

Many students also spoke of valuable work leads or contacts they had received from their parents. Nearly all interviewees had plans to work extensively over the summer after their first year in order to save money for their second year at college. Parents often drew on their professional or social networks to help their children secure summer employment. Ian’s mother helped him find a summer job at a local restaurant located next to the bank where she worked. Peyton’s mother helped her find a job as a children’s activities counselor which drew on Peyton’s own experience caring for her younger siblings and which fit in with her academic interest in elementary education.

5.4. Material Support from Family

Many students in the interview sample reported receiving some direct financial assistance from family during their first year at college, though the amounts were typically modest. Those who reported a complete absence of family financial contributions were more likely to be categorized in the Self-Sufficient group—a pattern consistent with the family dynamics class profiles reported in Chapter 2. Students in the Interdependent group were more likely than students in other groups to describe receiving financial contributions in the form of short-term 'emergency' loans from parents that expected to be repaid as soon as possible. Tyler noted that if he ever needed money in a pinch he could probably go to his grandparents for a loan. Though as he explained with a laugh, "I never get anything handed to me financially through my family that's just a gift…unless it's Christmas." However, such loans also sometimes came with emotional costs to the student. Jay described how his mother was "P.O.'d" about having to loan him money to cover tuition expenses during his first semester after he failed to return financial aid paperwork to the college financial aid office and therefore lost some of his aid. He did not feel he could go to his mother for financial help again if the need arose. Medium and High support students, on the other hand, were more likely to report regular, albeit modest, levels of financial assistance from parents paid out of a college fund the parents had created for the student. Amber, a white student attending technical college to become a veterinary technician, noted that her parents had been saving money for her college education since she was "very young"—a pot of money which enabled her to largely avoid taking out loans.

When parents provided little or no financial assistance to the student, siblings and extended family often stepped in to help. Noah told of how his two older sisters pitched in money to help him purchase supplies for college. And Min explained that while he received little money from

his parents, his grandparents, aunts and uncles in Korea often sent him cash to cover his expenses. Min's experience suggests that low-income college students who come from cultures marked by strong ties to extended family along with norms of mutual support may have much greater access to financial and non-financial resources through their family network than those from other cultural backgrounds. Nevertheless, Tou's experience also suggests that access to those resources may come at a higher cost to the student in the form of kinwork expectations when the entire extended family faces financial constraints.

Regardless of which family dynamics group the students belonged to, financial assistance from family was generally in the form of money for food or payment for incidental expenses such as car insurance, car repairs, or cell phone plans. Among students living independently, financial help with car and cell phone costs was common. This wasn't surprising given that such financial help also benefitted the parent by facilitating more regular contact with the student. Students who lived at home typically reported receiving material support in the form of food purchased by parents. However, High Support students who lived at home were more likely than their Interdependent counterparts to report receiving financial contributions from parents meant to cover other types of expenses.

Students in the interview sample often spoke of their reluctance to ask parents for direct financial support. For some, this reluctance was motivated by a desire to avoid pressing their parents and thereby straining the relationship with them since they knew the parents did not have the financial means to help. Such as dynamic was reflected in Roberto's earlier assertion that he didn't talk with his mother about his own financial troubles because, "there's not a lot that she can do about my financial situation here at college." But even when parents had the financial means to help, emotional estrangement between the student and parent sometimes presented a

barrier to asking the parent for financial help. In Troy's case, his parents were divorced when Troy was a freshman in high school. After the divorce, Troy remained with his mother while his father got remarried to a woman with two children of her own. Though Troy's father owned his own business and could have easily helped Troy financially during college, Troy was extremely resistant to asking for his help. As Troy explained it, "My mom always pushed me asking him for help. Because I mean my mom really didn't get much [financial support] from my father even though she was raising the kids. But I don't want to ask him...I want to be a little more independent." For students like Troy who are estranged from one or both parents, parent income figures reported on the student's FAFSA may therefore give an inaccurate picture of the student's actual access to those resources during college.

5.5. Kinwork, Coresidence, and Social Engagement

A clear difference between family dynamics groups emerged in how often interviewees described social engagement with other students at their college. Figure 3.5 displays the relative frequency of social engagement discussion by family dynamics class. Of particular note is the extremely low rate of discussion about peer engagement among students in the Interdependent group.

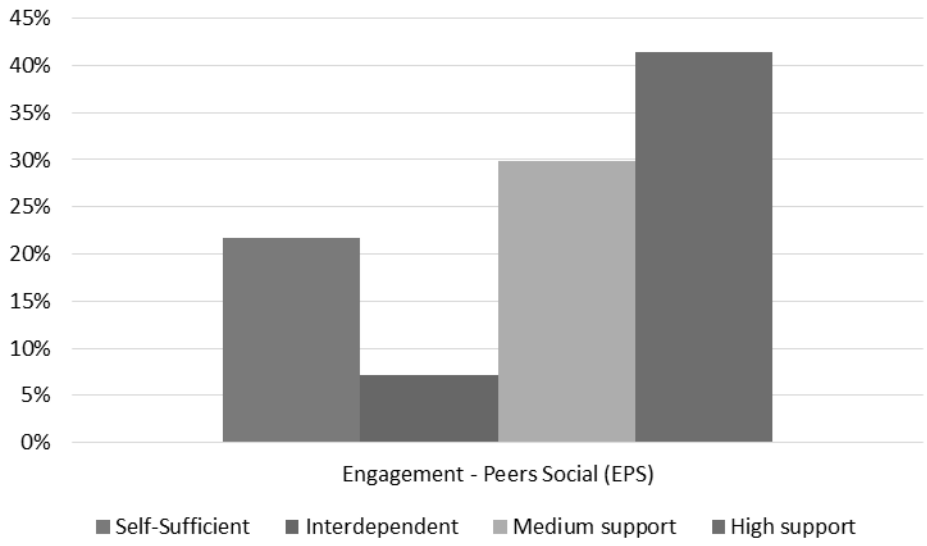


Fig. 3.5: Discussion of first-year social engagement by family dynamics class

Interviews revealed this pattern to be driven in part by the decision to live at home during the first year. Students who lived at home were quite forthright in the difficulty they had making friends simply because they did not have their own space to socialize.

> *Interviewer: Now you said earlier that being at home was sort of hard on social life, in what ways would you say it's hard?*
>
> *Jay: Because since I don't own my own place it's hard to bring people over whenever you think it's cool, because it might not be cool with somebody else in the house. It puts a damper on things.*

For other students who lived at home, it was a matter of not spending as much time on campus and therefore not having the opportunity to become integrated into the social fabric of the school. Bethany lived at home during her first semester, but then moved to campus for the second. When asked how her college experience was different she replied, "It was way different. I didn't have a lot of interaction with the other students that went there. Once I did move on campus it was like, 'I had class with you, and oh I see you on campus, like I was wondering why I never saw you, you don't stay on campus.'" Family kinwork responsibilities also played a role in making peer engagement more difficult for some students. In Tou's case, he was unable to

participate in a Hmong student organization on campus when he was forced to increase his work hours in order to financially support family after his mother lost her job. In describing the situation, Tou remarked, "…it's annoying…I feel unappreciated." Though understated in his frustration, his words clearly convey the unhappiness he felt at having to give up an important source of peer support on campus.

Apart from family impacts on social engagement, student interviews revealed ways in which family dynamics affected academics during the first year. Just as family kinwork responsibilities hampered social engagement, they also limited the time available to do homework. Significant family responsibilities such as Tou's also limited the number of credits he could take each term, thereby prolonging his time to degree.

Interviewer: Do you have any goals for yourself for next semester?

Tou: Yeah, don't slack off (laughs). [I've been] working it out and [I figure] you have to have 30 credits each year. So this year I only have 14, and the next one I can only fit in four classes because at night I have to come home before 1 because 1 is when my baby cousin comes over. I have to babysit him. And then [at] 2 or 2:30 I have to go pick up my sisters from high school. My sister, my younger brother, my youngest sister, and my other brother.

Finally, some students who lived at home described home environments unconducive to studying. Tou stated that when he returns home from college, his father "expects us not to have any [homework to do]." Jay, on the other hand, described how his mother and step father would actively undermine his efforts to study by heckling him when he studied at home, since he had rarely done so while in high school. Though Jay did not believe their teasing was done with malicious intent, it nevertheless made him feel frustrated enough to only study at home after everyone else had gone to bed.

6. Chapter Summary

It was clear from these interviews that parents and family continue to play central roles in the lives of low-income college students in ways that directly affect their adjustment to college during the first year. Interviewees continued to rely on their parents a great deal for emotional support and guidance which helped ease the psychological challenges they faced in their coursework and social lives, especially among students who lived away from home. Parents, and particularly mothers, often made great efforts to reach out to their children in order to provide encouragement and lend a sympathetic ear to the child's concerns, even if the parents themselves had never attended college. Students often cited parent (and family) encouragement and emotional support as instrumental to their emotional health and ability to persevere in the face of psychological obstacles. Parents also actively tried to shield children from worry by avoiding discussion of the family's financial struggles and other topics which might contribute to the students stress and overall psychological burden.

Interviewees also described other important forms of financial and non-financial assistance they received from family which helped them get through their first year. Although parents were often the providers of that assistance, older siblings and other extended family members who had greater experience with college emerged as key sources of material and non-material support. Such assistance sometimes took the form of financial management, or information about available support services and social opportunities at college that the students might not have otherwise known about. Students also frequently noted that they had received assistance from parents, siblings or other family members in completing their FAFSA during high school and therefore in their ability to secure financial aid for their freshman year. Although parents typically provided only nominal amounts of direct financial support to the interviewees to help

cover the costs of college, additional money was sometimes provided by older siblings, grandparents, or other extended family members. This was a more common practice among the Asian students in the sample, suggesting that low-income students from families with stronger 'collective' norms may have greater access to material resources through their family network. Parents were also able to tap into their extended social and professional networks to secure resources for their child. In particular, parents often found useful summer employment leads for the student through friends or colleagues at work—a pattern echoing Granovetter's seminal work on the importance of weak social ties (Granovetter, 1973).

Student testimony also revealed that while parents were often a critical source of emotional support and encouragement during the first year of college, interpersonal dynamics between interviewees and their parents were also frequently complex. Some students such as Melanie and Nima felt distress at the pressure put on them by parents to excel academically or to choose a particular field of study which might benefit the entire family because it was perceived as more marketable. Other students felt that they couldn't fully share their personal experiences and challenges in college with their parents because the parents wouldn't understand. Still others described feeling considerable distress and guilt related to the financial and personal struggles faced by their families—feelings which preoccupied them psychologically during their first year. This in turn led some to emotionally distance themselves from parents, censor discussion of their own troubles, or simply avoid asking parents for help in order to spare them further psychological burden. These tendencies were more common among students in the Self-Sufficient group who were receiving little or no instrumental support from parents during their first year at college. Such findings give some insight on past research linking emotional closeness with parents to higher levels of instrumental and monetary assistance (Eggebeen, 2005;

Rossi & Rossi, 1990), by suggesting that in severely low-income families, young adults' access to all forms of support from parents, whether instrumental or emotional, may be limited due to feelings of estrangement rooted in the family's financial struggles.

As expected, family norms of obligation and reciprocity emerged as an important theme in discussions with this group of low-income college students. Many students expressed a strong desire to give back to their parents and family for the sacrifices they had made while raising them. When those norms were future oriented, meaning the student viewed attainment of a college education and subsequent career as instrumental to their ability to give back to family later in life, then they often promoted a strong sense of determination and work ethic in the student to succeed academically. For students like Kia, strong bonds with parents based on trust and norms of reciprocity also promoted positive and responsible academic behaviors by exerting psychological pressure on the student to live up to the parents' academic expectations.

Yet for some students—particularly those in the Interdependent group—feelings of obligation to provide kinwork, or current support to family, were prominent. These appeared to be rooted in the family's immediate economic need, but also in preexisting norms of interdependence and intergenerational reciprocity, especially among the Asian and African American interviewees. Kinwork was typically described as some combination of direct financial assistance to family, and time spent caring for siblings or other relatives. These family provider and caretaker roles were generally not new, but rather an extension of roles the student had assumed during adolescence. Preexisting family kinscripts arrangements appeared to contribute to the decision to live with family during college, as well as to work extensively while pursuing studies. And both living at home and working appeared to limit the ability of interviewees to form friendships at college, while also affecting their ability to maintain full time enrollment.

Chapter 4
The Relationship between Family Dynamics and College Persistence

1. Introduction

The previous two chapters explored family dynamics among low-income college students. Findings suggest that family dynamics can and do influence how low-income students experience their first year of college. Among a subset of more economically disadvantaged students, significant family support responsibilities appear to result in greater time spent working or caring for family members, and consequently less time spent in academic or social pursuits at college. Those in the Interdependent group may be at heightened risk in this regard. Feelings of estrangement from parents rooted in the economic struggles of the family, which also appear to be more common among Self-Sufficient and Interdependent students, can pose a psychological and emotional burden on the student that also distracts from college academic and social focus. This final analysis chapter takes a more hypothesis-driven approach by examining whether college social integration and work mediate the relationship between family dynamics and the probability of leaving college after the first year.

2. College Persistence: The Roles of Social Integration and Work

College persistence, also referred to as student retention from the institutional perspective, is one of the most studied areas in the field of postsecondary research. Central to the study of student retention over the past thirty years has been Tinto's interactionalist theory which posits that one of the central factors influencing student persistence is the student's level of social integration at the college (Tinto, 1993). The greater the student's involvement in social communities on campus, the theory goes, the greater the student's commitment to the institution

and the goal of graduation (Tinto, 1993). A great deal of subsequent research which tested this proposition of Tinto's model generally confirmed his hypothesis that as college students make greater investments into establishing relationships with peers informally and through extracurricular activities, their likelihood of remaining enrolled in college tends to increase (Astin, 1993; Braxton, Hirschy, & McClendon, 2011; Kuh, 2003; Ernest T. Pascarella & Terenzini, 2005).

A key psychological characteristic found to be related to social integration at college, as well as to academic outcomes more generally, is a sense of perceived self-efficacy or the belief that one can cope with adversity and perform new or difficult tasks (Hamann, 1997; Solberg et al., 1998; J. B. Torres & Solberg, 2001). This may be because students with higher levels of self-efficacy are more likely to perceive new experiences as challenges rather than threats (Jerusalem & Schwarzer, 1992). One way families have been shown to promote a sense of self-efficacy in their children is by through a sense of secure attachment and emotional support. Families providing secure attachments to young adults in turn engender greater levels of self-confidence which facilitates exploration and risk-taking, including the development of new social relationships (Torres & Solberg, 2001). Research has shown that students whose parents are autonomy-granting tend to adjust more easily than those who have less positive relationships with home (Hickman et al., 2000; Strage & Brandt, 1999). And students whose parental relationships are characterized by more open communication and higher levels of reciprocity tend to become more psychologically and socially adjusted to college during the first year (Adams et al., 2000; Wintre & Yaffe, 2000).

Although Tinto's (1993) interactionist framework focuses primarily on the ways that a student's institutional interactions affect college persistence, it also highlights work as an

external obligation which can present a barrier to social integration, and thus to persistence. In his study of first-year college attrition, Bozick discusses the negative relationship between work and persistence as an issue of competing time use, noting that the more time students spend at their jobs, the less time they have for school-related activities such as studying or interacting with peers (Bozick, 2007). Nationally, an estimated one in three traditional aged college students also works extensively (i.e. more than 20 hours per week) while attending school (Planty et al., 2008). Research on the relationship between work and persistence, though fraught with selection issues which make it challenging to compare working and non-working students, has generally found a negative relationship between extensive work during college and the probability of remaining enrolled. Using quasi-experimental methods, Ehrenberg and Sherman found that working more than 20 hours per week significantly reduced the probability of year-to-year persistence (Ehrenberg & Sherman, 1987). A number of later studies (Bozick, 2007; Horn, 1998; Orszag, Orszag, & Whitmore, 2001) also found similar results. A separate study by Stinebrickner & Stinebrickner found that working during the first semester of college had a harmful effect on grade performance (Stinebrickner & Stinebrickner, 2003). In general, the decision to work extensively during college appears to be influenced by both financial need and the level of social capital within the student's family (Roksa & Velez, 2010; Benson & Golrick-Rab, 2011). Bozick notes that extensive work in college among low-income students can be a strategy for families to get by financially—a notion supported by WSLS student interview testimony from the previous chapter.

3. Hypothesized Model

Figure 4.1 represents the hypothesized model of the relationship between family dynamics during the first year of college and persistence into the second year. Straight arrows in the model represent presumed direct paths, while curved arrows represent correlations between variables. Squares represent observed variables, and large circles represent unobserved, or latent variables estimated via observed indicators that are implied but not specified in the diagram. All paths are presumed net of student pre-college academic ability and other factors considered to be associated with college persistence, academic performance, propensity to work, and/or social integration. These include family structure, parent's socioeconomic status, gender, race/ethnicity, immigrant status, place of residence, level of parents' financial support, and net price of attending college (Conley, 2004; Benson & Goldrick-Rab, 2011; Sullivan, 2013; Goldrick-Rab et al, 2014; Schudde, 2011).

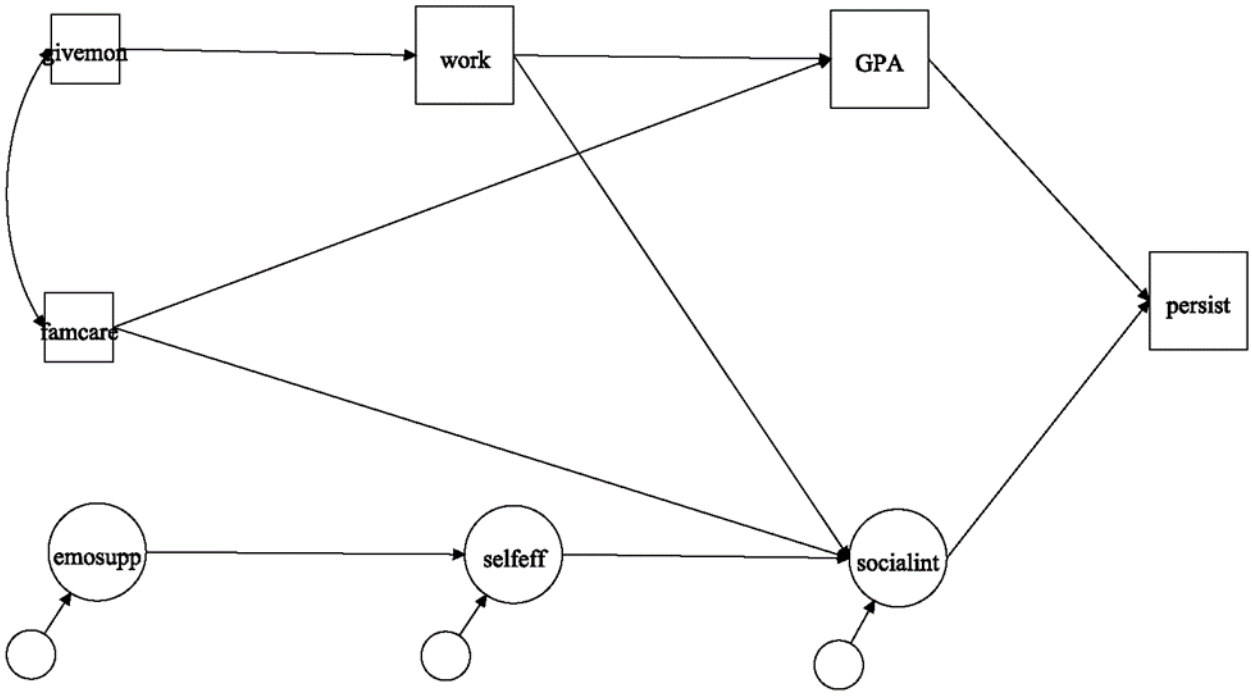


Fig 4.1: Hypothesized model of family dynamics and second year persistence

On the left side of the model are two exogenous indicators of family responsibility during the first year of college—regular cash transfers to family (givemon), and care for another family member exceeding ten hours a week (famcare). These variables are presumed to affect second-year persistence in the following ways:

Hypothesis 1: Regular cash transfers to family will be indirectly associated with a lower likelihood of re-enrollment at college in the second year through the probability of extensive work, lower academic achievement, and lower levels of social integration.

Hypothesis 2: Care for another family member exceeding ten hours per week will be indirectly associated with a lower likelihood of re-enrollment at college in the second year through the probability of lower academic achievement and lower levels of social integration

.

Regular cash transfers to family are hypothesized to increase the probability of working more than twenty hours per week (work) via the additional financial burden placed on the student to help cover the cost of family expenses as well as the student's own academic expenses. This relationship between family financial responsibility and work was implied by the qualitative findings in the previous chapter. High work during college is in turn hypothesized to be negatively linked to student academic performance (GPA) and social integration (socialint), primarily by reducing the number of hours the student has available to study or socialize. Similarly, high levels of family care are hypothesized to directly reduce academic performance and social integration during the first year by reducing the number of hours each week available to the student. Because prior research has demonstrated that student persistence is in part a function of academic performance in college (Bozick, 2007) and the extent to which the student becomes integrated into the social fabric of the school (Cabrera, Nora, & Castañeda, 1993), both

are hypothesized to mediate the relationship between family responsibility persistence into the second year.

Also on the left side of the model is a latent measure of emotional support from parents (emosupp). Emotional support from parents is presumed to affect second year persistence in the following way:

> *Hypothesis 3*: Parental emotional support during the first year of college will be indirectly associated with a higher likelihood of re-enrollment in the second year through higher levels of self-efficacy and social integration.

This hypothesis is consistent with research showing a positive relationship between parental support and higher levels of student self-efficacy in college, as well as a positive relationship between self-efficacy and social integration (Torres & Solberg, 2001).

4. Data and Methods

4.1. Sample

The analyses in this chapter are based 758 economically disadvantaged college freshmen attending 13 public four-year colleges and universities in Wisconsin. This group is a subset of the full analytic sample of 1,051 WSLS students described in Chapter 1. Because two-year community colleges and public four-year colleges have very different institutional missions and environments, the decision was made to drop 293 two-year students who were in the analytic sample from the present analyses. A full description of the four-year sample is provided below in the results section.

4.2. Measures

4.2.1. Emotional Support, Social Integration & Self Efficacy

Level of students' perceived emotional support from parents was measured via a paper-based survey administered toward the end of the first semester in college. Emotional support was represented by a modified eight-item version of a parent support scale originally developed by the Michigan Study of Adolescent and Adult Life Transitions (Osgood et al., 2005). Survey questions asked students how much support they had received from parents in the past year in a variety of areas (table 4.1). Answers were on a five-point Likert-type measurement scale ranging from "not at all" (= 1) to "an immense amount" (= 5). Items showed an extremely high level of internal consistency (α=0.96), indicating that they measured the same construct. For the purposes of this study, I refer to this construct as "emotional support" due to the more common use of the term in the social support literature (Langford, Bowsher, Maloney, & Lillis, 1997; Taylor, 2011). Nevertheless, the scale items may also be usefully thought of as measures of emotional closeness between parent and child.

Level of social integration at college during the first year was measured via the same survey used to measure emotional support. Seven survey items defined social integration (table 4.1). Two of the items—"College life is fun" and "I feel like I fit in with the other students at my college"—were measured using binary yes/no response categories. The remainder of the items were measured on five-point Likert scales ranging from "strongly disagree" (=1) to "strongly agree" (=5). Though somewhat lower than the emotional support scale, the items nevertheless showed good internal consistency (α=0.81) based on prevailing psychometric standards (Nunnally & Bernstein, 1994).

Table 4.1: Scale indicators of emotional support, social integration and self-efficacy

	Item	Name	Alpha
Emotional Support		*emosupp*	0.96
	Made you feel worthwhile, special, and unique.	worth	
	Shared a reliable relationship with you that will last no matter what.	relate	
	Helped you become the kind of person you want to be.	growth	
	Made you feel like you are good at many things.	goodat	
	Made you feel better when you are upset.	feelbet	
	Made you feel admired and respected.	respect	
	Made you feel proud of yourself.	pride	
	Listened to you when you feel stressed.	listen	
Social Integration		*socialint*	0.81
	College life is fun.	funcoll	
	I have made many new friends in college.	newfr	
	I enjoy the people I go to college with.	collpeop	
	I feel like I fit in with the other students at my college.	fitin	
	I will enjoy myself as much as other students.	enjoy	
	I'm not as happy in college as I expected to be (reverse coded)	happy	
	I have fewer friends in college than I expected (reverse coded)	friends	
Self Efficacy		*selfeff*	0.77
	When I try hard, I can solve difficult problems	solve	
	I find ways to get what I want, even if someone opposes me	findw	
	I handle unforeseen situations well	handl	
	When faced with a problem, I can identify several solutions	idsol	
	I solve problems without getting very frustrated	notfr	
	I solve problems without giving up	notgu	

Student self-efficacy was also measured via the first-year WSLS survey using a six-item subset of the General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995). Items were measured on a five-point Likert-type scale ranging from “strongly disagree” (=1) to “strongly agree” (=5). The reliability of the GSE as a unidimensional construct has been demonstrated by multiple studies with Cronbach’s alphas ranging from .75 to .91 (Scholz, Gutiérrez Doña, Sud, & Schwarzer, 2002). The scale’s criterion-related validity has also been demonstrated in a number of correlation studies showing significant relationships with depression, stress, anxiety and

health complaints (e.g. Schwarzer,Ralf and Fuchs, 1995). In this sample of low-income four-year students, the scale also showed good internal consistency with an alpha of 0.77.

4.2.2. Responsibility to Family, Work and Mental Health

Responsibility to family, work hours and mental health were measured in this study via items from the same first-term survey used to measure emotional support and social integration. Regular cash transfers to family were measured via a binary survey item asking students whether they regularly gave "family or friends more than $50 per month" since starting college. The limitation of this item by the inclusion of "friends" has already been noted in Chapter 2. Nevertheless, given the relative rarity of regular cash transfers to friends, it is likely that most students who answered yes to the item were indeed thinking of transfers to family. Extensive care for family members, including younger siblings and/or older family members such as grandparents, was measured by an indicator of more than ten hours per week of family care. The item was created from two open-ended survey questions that asked students to report the number of hours spent in the prior week caring for siblings and older relatives respectively. Unfortunately, the additive combination of these two survey items resulted in a new variable with significant outliers and a highly non-normal distribution not amenable to correction through mathematical transformation. Because path analysis relies on assumptions of both univariate and multivariate and normality (Kline, 2011), an indicator of "high family care hours" was created instead. The decision to designate ten hours per week as the critical cut point was largely empirical based on an examination of the combined variable's distributional modes. A similar binary indicator of "extensive work hours" was also used in the analyses. This item measured whether the student reported working more than twenty hours per week at the time the survey was administered during the first semester. The decision to use twenty hours per week as the

critical cut point was based on past research indicating negative effects on persistence at that level (Bozick, 2007; Ehrenberg & Sherman, 1987). Finally, student mental health during the first year was represented by five-point Likert-type survey question which asked students, "In general, how would you say your mental health (e.g. stress, emotions) is?" Response options ranged from "poor" (=1) to "excellent" (=5). The dual dimensions of stress and emotional well-being specified in the question are similar to those used in earlier research on the relationship between parent support and mental health (e.g. Wintre & Yaffe, 2000).

4.2.3. Academic outcomes

Two academic outcome measures were included in the analysis—cumulative first-year grade point average (GPA) and second-year persistence, defined as re-enrollment in the same institution in the fall semester of the second year. This measure of persistence was narrower than the one used in chapter 2, which defined year-two persistence as enrollment at any postsecondary institution. The decision to limit persistence to re-enrollment at the same institution in this study was motivated by the theoretical research model described in following section, which draws on past theory and research indicating an institution-specific relationship between social integration and persistence (Tinto, 1993; Cabrera et. al., 1993). Both the student's first-year GPA and second year persistence were obtained directly from institutional records.

4.2.4. Covariates

In addition to the variables described above, the final model incorporated a number of covariates as statistical controls to account for potential factors that might explain an observed relationship between family dynamics and second year persistence. These included two variables of the student's family structure—number of siblings (including step and half-siblings) and whether the student lived with both biological parents during high school—both of which were

measured via survey questions. Indicators of gender, minority status, immigrant status, and first-generation status represented student demographic background. If students identified as a race/ethnicity other than white non-Hispanic they were categorized as a minority. Immigrant status indicated that the student was not born in the United States, or at least one of the biological parents was not born in the United States. First generation status indicated that neither parent had attained a postsecondary degree. Family financial strength was represented by the student's Expected Family Contribution from the student FAFSA, as well as a Likert-scaled survey measure of the level of financial contributions the student felt his or her parents had made to help cover college expenses. Finally, the model incorporated both an indicator of whether the student had co-resided with family during the first year at college, as well as a continuous measure of the student's estimated college expenses in the form of their net price of attendance.[14]

4.3. Analysis

4.3.1. Structural equation modeling

The analyses in this chapter are based on the statistical technique of structural equation modeling. Structural equation modeling, or SEM, actually refers to a collection of statistical techniques based on the general linear model. SEM has been a central tool of social scientists for more than four decades, particularly in the fields of economics, psychology and sociology, in order to formulate and test social theories (Kaplan, 2009). One of the noted strengths of SEM as an analytic technique is its ability to explore mediation effects by extending traditional regression analyses to estimate multiple equations simultaneously where variables can act as independent (IV) in one equation and dependent (DV) in another. SEM also allows the analyst to estimate latent (i.e. unobserved) variables from observed indicators, and to examine the

[14] As in Chapter 3, net price was calculated as the total cost of attendance adjusted for place of residence minus total grants and scholarships received.

relationship of the estimated latent variable to other variables in the model. The general structural equation model consists of two parts: a measurement part, which links observed variables to latent variables via a confirmatory factor model, and a structural part linking latent and observed variables to each other via a system of simultaneous equations (Kaplan, 2009). The data in this study were analyzed following the two-step SEM approach suggested by Kline (2011), Andersen and Gerbling (1988) and others. The first step was to determine the fit of a confirmatory factor analytic (CFA) model to the observed data. In the next step, the proposed structural model described earlier in this chapter was estimated based on results from the measurement model.

4.3.2. Software

Model fitting and estimation for both the measurement and structural components of the structural equation model were done using Mplus version 7.11 (Muthén & Muthén, 2012). Model parameters were estimated using the weighted least squares means and variance adjusted (WLSMV) estimator option in Mplus. Because WSLMV is a robust estimator which does not assume normally distributed variables, it provided the best option for modeling the mixture of categorical, ordered and continuous data in this analysis. Missing values, which comprised less than 2 % of the observations on any of the variables in the structural equation model, were assumed to be missing at random (MAR) and handled in Mplus via full-information maximum likelihood (FIML) procedure which allows missingness to be a function of observed covariates (Muthen & Muthen, 2012; Asparouhov & Muthen, 2010). Because students in the sample were originally selected via a clustered sampling design at the college level, the TYPE=COMPLEX analysis option in Mplus was specified in order to compute adjusted standard errors which took into account non-independence of observations. The SUBPOPULATION=FOURYEAR analysis

option was also used to handle potential "sector effects" on the model arising from the mix of two year and four year colleges attended by students in the sample. Unfortunately the limited number of students in the sample attending two-year colleges prevented the estimation of separate structural models for two and four-year students. Use of the SUBPOPULATION command therefore limited model estimation to students attending four-year residential colleges.

5. Results

5.1. Descriptive Statistics

Table 4.2 presents the means, standard deviations, range, skewness and kurtosis of the variables used in this study. All mean scores for 5-point Likert-scale variables used in the emotional support, social integration and self-efficacy measurement model were above the midpoint of 3.00, and generally fell in the 3.40 to 4.00 range. Means indicated relatively high levels of emotional support from parents, self-efficacy and social integration during the first year. Two binary indicators of having fun at college and fitting in with other students that were used in the social integration scale were also quite high at 75 % and 79 % respectively. Approximately 12 % of the sample reported regularly giving family more than $50 per month since starting college. This is a significant sum of money when one considers the considerable financial obligations and limited financial resources of students in the sample. Twelve percent of the sample also reported spending more than 10 hours in the prior week taking care of an older family member and/or younger sibling. That the proportions of students who reported either regular cash transfers to family or care for family were relatively large spoke to how common responsibilities to family were among the students.

Table 4.2: Descriptive Statistics for the Four-Year Sample

N=758	Mean	SD	Range	Skewness	Kurtosis
Emotional Support					
worth	3.83	1.12	1-5	-0.83	2.94
relate	4.11	1.15	1-5	-1.21	3.53
growth	3.93	1.19	1-5	-1.02	3.14
goodat	3.80	1.21	1-5	-0.83	2.71
feelbet	3.54	1.32	1-5	-0.55	2.14
respect	3.63	1.26	1-5	-0.60	2.30
pride	3.78	1.22	1-5	-0.75	2.53
listen	3.65	1.33	1-5	-0.61	2.15
Social Integration					
funcoll	0.75	0.43	0-1	-0.29	2.82
newfr	3.47	0.98	1-5	-0.29	2.82
collpeop	3.75	0.94	1-5	-0.55	3.08
fitin	0.79	0.41	0-1	-1.41	2.99
enjoy	3.56	1.00	1-5	-0.34	2.52
happy	3.42	1.33	1-5	-0.27	1.80
friends	3.39	1.34	1-5	-0.25	1.78
Self-Efficacy					
solve	4.31	0.70	1-5	-1.08	5.17
findw	3.53	0.96	1-5	-0.40	2.82
handl	3.71	0.85	1-5	-0.64	3.46
idsol	3.90	0.79	1-5	-0.77	3.46
notfr	3.24	1.04	1-5	-0.19	2.26
notgu	3.80	0.92	1-5	-0.62	2.97
Gives money to family	0.11	0.32	0-1	2.47	7.08
Family care > 10 hrs/wk	0.09	0.29	0-1	2.80	8.85
Work > 20 hrs/wk	0.09	0.27	0-1	2.89	9.58
Mental health	3.66	1.05	1-5	-0.40	2.45
Yr. 1 cumulative GPA	2.67	0.81	0-4	-0.82	3.36
Yr. 2 persistence	0.76	0.43	0-1	-1.19	2.42
Female	0.61	0.49	0-1	-0.49	1.24
Minority	0.28	0.45	0-1	1.00	1.99
Immigrant	0.15	0.35	0-1	2.01	5.05
First generation	0.55	0.48	0-1	-0.21	1.04
Lives with family	0.18	0.38	0-1	1.67	3.78
Number of siblings	3.19	2.20	0-10	1.08	3.82
Two-parent family	0.50	0.50	0-1	-0.01	1.00
Money from family	3.05	1.49	1-5	-0.02	1.59
Expected family contribution ($K)	1.45	1.43	0-4.04	0.41	1.68
ACT	21.70	3.84	10-33	0.13	2.84
Net price ($K)	6.24	4.02	0-17.04	0.24	2.24

Approximately one in seven students reported working more than 20 hours a week, and the average mental health level of students hovered between “good” and “very good”. By the end of the first year, students had earned just a 2.59 average cumulative GPA, and nearly one third of them did not return to the same institution in the fall of their sophomore year. All indices for variable skewness, which measures the tilt of a distribution, and kurtosis, which measures the peakedness of a distribution, fell into the acceptable ranges of |3| and |10| respectively to meet the normality assumption of the multivariate data (Kline, 2011).

5.2. Measurement Model

Prior to estimating the full structural equation model, a confirmatory factor analysis was conducted to assess the convergent and discriminant validity of the two latent measures used in the measurement model. The first latent construct of parental emotional support, was modeled via eight indicators taken from MSALT Parent Support Scale (Osgood et al., 2005), while the second latent construct of college social integration was modeled with seven survey items developed for the Wisconsin Scholars Longitudinal Study Wave 1 Survey (Goldrick-Rab et al, 2012). Both sets of indicators are covered in more detail earlier in this chapter and presented in Table 4.1.

Table 4.3 below shows the results of the measurement model. Overall, the model provided very good convergent validity evidence. Standardized factor loadings for the latent construct of emotional support ranged from 0.850 to 0.957 indicating near perfect correlations between the observable indicators and underlying factor. These factor loadings translated into r-squared figures of between 0.723 and 0.917, which can be interpreted as the amount of variance in each of the observed indicators explained by the underlying emotional support factor.

Table 4.3: Measurement model results

Parameters	*βxy*	Est.	S.E.	p-value	R^2
	Factor loadings				
Emotional Support					
worth	0.860	1.000	0.000	999.000	0.739
relate	0.858	0.999	0.010	0.000	0.737
growth	0.850	0.989	0.014	0.000	0.723
goodat	0.927	1.079	0.009	0.000	0.860
feelbet	0.931	1.083	0.009	0.000	0.867
respect	0.957	1.114	0.011	0.000	0.917
pride	0.941	1.095	0.013	0.000	0.885
listen	0.902	1.050	0.009	0.000	0.814
Social Integration					
funcoll	0.830	1.000	0.000	999.000	0.689
newfr	0.725	0.873	0.029	0.000	0.526
collpeop	0.801	0.965	0.025	0.000	0.642
fitin	0.780	0.939	0.029	0.000	0.608
enjoy	0.629	0.757	0.033	0.000	0.395
happy	0.658	0.793	0.021	0.000	0.434
friends	0.716	0.863	0.025	0.000	0.513
Self-Efficacy					
solve	0.668	1.000	0.000	999.000	0.447
findw	0.575	0.561	0.051	0.000	0.335
handl	0.754	1.128	0.064	0.000	0.569
idsol	0.841	1.259	0.044	0.000	0.708
notfr	0.674	1.008	0.06	0.000	0.454
notgu	0.692	1.035	0.056	0.000	0.479
	Factor variances and covariance				
Emotional Support	1.000	0.739	0.015	0.000	--
Social Integration	1.000	0.689	0.023	0.000	--
Self-Efficacy	1.000				
ES with SI	0.238	0.170	0.021	0.000	--
ES with SE	0.184	0.107	0.016	0.000	
SI with SE	0.253	0.139	0.020	0.000	

The average variance extracted (AVE) for the emotional support factor was 0.725. AVE represents the average percent of variation among the indicators attributable to the construct as opposed to measurement error (Fornell & Larcker, 1981). Convergent validity is considered

adequate when the AVE index equals or exceeds 0.50. In the case of the emotional support factor, the AVE far exceeded that threshold. Standardized factor loadings for the social integration factor were somewhat lower than those for emotional support at 0.629 to 0.830. Nevertheless, these numbers still provided good evidence for convergent validity when considered in conjunction with r-squared figures generally above 0.50 and an AVE of 0.544. Factor loadings for the self-efficacy factor were also generally lower at 0.575 to 0.841. With an AVE of 0.499, evidence of convergent validity was generally weaker. Discriminant validity, or the extent to which the factors were distinct from each other, was indicated by low inter-factor correlation coefficients of between 0.184 and 0.253.

Table 4.4: Measurement Model Fit Indices

Fit indices	Values	Recommended	References
χ^2 (*df*)	352.219 (186), p<0.001	Non-significant	Klem (2000), McDonald & Ho (2002)
χ^2/df	1.894	<3	Kline (2011)
CFI	0.994	≥0.90	Klem (2000), McDonald & Ho (2002)
TLI	0.993	≥0.90	Klem (2000), McDonald & Ho (2002)
RMSEA	0.034 (0.029, 0.040)	<0.05	Kline (2011)

A number of indices were used in this study in order assess the fit of the measurement model to the data (Table 4.4), including the chi-square statistic, ratio of chi-square to its degrees of freedom, the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). These indices are typically used to measure three types of model fit: absolute (how well the model reproduces the observed data), incremental (how well the model fits relative to a hypothetical baseline model), and parsimony (whether the model can be improved by specifying fewer parameter paths). The initial measure of goodness of fit is the chi-square statistic that indicates how well the model reproduces the covariance matrix among the indicators. However, the chi-square has been found to be too sensitive to large sample sizes

(Hair, Tatham, Anderson, & Black, 2006), so the ratio of the model chi-square to its degrees of freedom was calculated as well. The ratio value of 1.894 was below the recommended critical value of 3 and therefore indicated acceptable fit between the hypothetical model and the sample data. Both the TLI and CFI, which represent improved model fit over a hypothetical baseline model in which all variables are constrained to be uncorrelated, were well above the recommended value of 0.90. Finally, the model RMSEA, a parsimony-adjusted measure of approximate model fit, was below the recommended critical value of 0.05. With a 90 % confidence interval upper limit of 0.040, the RMSEA value of 0.034 indicated good model fit.

5.3. Structural Equation Model

5.3.1. Model Comparison

The first step in estimating the full structural equation model was determining overall model fit. As shown in table 4.5, the chi-square for the baseline model was 647.308 (*df*=510). The CFI was 0.990, and the TLI, which penalizes for extra estimated parameters, was a slightly lower 0.988. Both the CFI and TLI exceeded the minimum threshold of 0.90 generally considered to indicate good model fit (Klem, 2000; McDonald & Ho, 2002). The RMSEA was 0.019 with a 90 % confidence interval well within the 0.05 critical value. The chi-square was non-significant at $p<.05$ which, when considered with the other fit indices, generally indicated that the data supporting the hypothesized model.

Despite the indications that the baseline model fit the data relatively well, modification indices revealed an improvement in fit might be expected by freeing one direct path from self-efficacy to GPA. In testing this alternate model, a statistically significant improvement in the chi-square resulted, though the other fit indices did not change. Based on the significant chi-square difference test, the expanded alternate model was retained as the final model iteration.

Table 4.5: SEM Comparative Model Fit Indices

Fit indices	Baseline Model	Final Model
χ^2 *(df)*	647.308 (510)	645.896 (509)
$\Delta\ \chi^2$*(df)*	--	5.026 (1), $p<0.05$
CFI	0.990	0.990
TLI	0.988	0.988
RMSEA	0.019 (0.014, 0.024)	0.019 (0.014, 0.024)

Note: When using the WLSMV estimator, the chi-square difference is not distributed as a chi-square. Model difference testing was therefore done using the Mplus DIFFTEST option.

5.3.2. Assessment of Direct, Indirect and Total Effects

Estimates for the final fitted structural equation model are presented in table 4.6. For the continuous outcomes of mental health, social integration and first-year GPA, the table lists unstandardized linear regression coefficients and their associated standard errors. For the binary outcomes of work and second-year GPA, coefficients are reported as odds ratios due to their relative ease of interpretation. Because the WLSMV estimator in MPlus uses probit regressions to estimate categorical variable pathways, the original probit coefficients were converted to odds ratios by multiplying the coefficient by a factor of 1.7 and then exponentiating the result to derive the percentage change in odds (Long & Freese, 2003).

The first hypothesis that regular cash transfers to family would be indirectly associated with a lower likelihood of re-enrollment at college in the second year was fully supported. After controlling for demographic and other factors, regular cash transfers more than doubled the odds that a student would also work more than 20 hours per week during the first year of college. High levels of work in turn had a significant negative association with first year GPA, and by extension with persistence into the second year. The total effect of regular cash transfers on persistence translated into an odds ratio of 0.932. For students in the sample, this meant regular cash transfers reduced the odds of persistence by an estimated 6.7 % net of student background

variables, place of residence, level of support, and the specific institution the student attended. A decomposition of this total effect revealed that high work hours and first year academic performance were the primary mediators, accounting for the entire effect.

The second hypothesis that care for another family member exceeding ten hours per week would be indirectly associated with a lower likelihood of persistence was not supported by the data. The hypothesized path from family care to social integration resulted in a coefficient that was unexpectedly positive but not significant. The path coefficient from family care to first year GPA was in the expected negative direction, actually exceeding the coefficient size from work to GPA. However, the standard error of the estimate was quite large which prevented the path from reaching statistical significance. Neither the hypothesized total effect, nor any of the posited indirect pathways from family care to persistence were supported by the model results.

Finally, the third hypothesis that emotional support from parents would be indirectly associated with a higher likelihood of re-enrollment in the second year was fully supported. Net of other factors, students from minority and immigrant families, as well as first generation students were likely to report lower levels of emotional support from parents. On the other hand, material support from parents had a strong positive relationship with reported level of emotional support. As expected the direct path from emotional support to self-efficacy was significant and strong. After controlling for student background and other factors, each unit increase on the emotional support scale was associated with an increase of approximately one sixth of a unit on the mental health scale. Translated into standardized units, a standard deviation increase in emotional support predicted nearly a third of a standard deviation increase in self-efficacy. Self-efficacy in turn had a strong positive effect on social integration. The total effect of emotional support on persistence was significant albeit modest. Each unit increase on the emotional support

scale translated into an increase of approximately 2% in the odds of re-enrolling at the same college the following year. Both higher levels of self-efficacy and higher levels of social integration during the student's first year mediated the entire effect.

Table 4.6: Final structural equation model results

	Emo. Support		Work > 20 hrs/wk		Self-Efficacy		Social integration		Yr. 1 GPA		Yr. 2 persistence	
	Coef.	S.E.	O.R.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	O.R.	S.E.
						Direct						
Gives money to family			2.049**	0.536								
Family care > 10 hrs/wk							0.126	0.179	-0.182	0.100		
Work > 20 hrs/wk							-0.010	0.095	-0.157**	0.048		
Emotional support					0.138**	0.026						
Self-efficacy							0.540**	0.106	0.071*	0.030		
Social integration											1.191**	0.058
Yr. 1 cumulative GPA											2.811**	0.234
Female	-0.025	0.042	1.342	0.365	-0.106*	0.050	-0.133*	0.054	0.244**	0.051	0.788	0.153
Minority	-0.124*	0.058	0.237*	0.151	0.010	0.078	0.030	0.101	-0.335**	0.091	1.564	0.550
Immigrant	-0.440**	0.078	4.017	3.237	0.062	0.170	0.085*	0.11	0.402**	0.091	1.313	0.328
First generation	-0.139*	0.067	1.436	0.396	0.108	0.078	-0.125*	0.062	-0.047	0.051	1.065	0.188
Lives with family	-0.050	0.043	5.455**	1.577	0.113	0.060	-0.342**	0.094	-0.014	0.104	0.602	0.174
Number of siblings	-0.018	0.011	0.992	0.079	0.000	0.013	0.000	0.013	-0.013	0.024	0.917	0.044
Two-parent family	0.050	0.050	0.86	0.194	-0.163*	0.080	-0.056	0.047	0.152**	0.055	0.764	0.170
Money from family	0.249**	0.026	0.867	0.078	-0.048	0.038	0.015	0.014	-0.04	0.026	1.063	0.060
EFC ($K)	0.002	0.025	0.743*	0.086	-0.079*	0.023	0.042**	0.014	0.085	0.024	1.245**	0.089
ACT	0.002	0.008	0.958	0.055	0.017**	0.003	0.010	0.009	0.044**	0.009	1.015	0.033
Net price ($K)	0.001	0.004	1.109*	0.057	0.017*	0.007	-0.024*	0.009	-0.043**	0.012	0.882**	0.039
						Total and Indirect						
Gives money to family											0.932**	0.024
via work to GPA											0.932**	0.024
Emotional support											1.024**	0.006
via selfeff to socialint											1.013**	0.003

*Note: N=758; *p<.05; **p<.01. Odds ratios reported if dependent variable is binary. Linear coefficients reported if dependent variable is continuous. Only significant total and indirect effects are reported.*

6. Chapter Summary

In the long history of research on student persistence in college, Tinto's interactionalist model has achieved paradigmatic status in helping to explain student attrition (Tinto, 1993). Central to the model is the notion that student persistence at college is positively influenced through the development of relationships with peers and college personnel at the college—a theory largely substantiated by subsequent research (Astin, 1993; Braxton et al., 2004; Kuh, 2001, 2003; Kuh et al., 2007; Pascarella & Terenzini, 2005). However, Tinto's original model, which suggested that separation from family and community external to the college was necessary to the student's assimilation at college, was roundly criticized for being insensitive to culturally-based norms around separation from family (Tierney, 1992, 1999), a critique Tinto later acknowledged as valid (Tinto, 2007). Other theories of student attrition from college which addressed the role of family, most notably Bean and Metzner's theory of non-traditional student attrition (Bean & Metzner, 1985), also characterized family responsibilities as instrumental to the decision to leave college via their effects on poorer academic performance and lower levels of commitment to the goal of completing college.

Yet subsequent research has revealed that family relationships can play an important psychological role in the student's decision to remain in college. Particularly among first-generation and low-income students, parents can provide a sense of social support in cases where students feel a sense of social exclusion from more affluent peers due to financial constraints and/or different cultural values (Bergerson, 2007; Stuber, 2011). In such situations, emotionally supportive parents act as a buffer against stress and depression, and are a source of motivation for the student to maintain focus on academic goals. Consistent with these findings, low-income and first-generation students often cite family relationships and support as having a large impact on their decision to pursue higher education, as well as their academic success once in college

(Bryan & Simmons, 2009; Grigsby, 2009). Supportive relationships with family may in turn facilitate greater social and academic integration at college (Christie & Dinham, 1991). Though as findings from the previous two chapters suggest, the norms of family obligation and reciprocity which serve to bond young adults to their parents in economically disadvantaged families may also levy responsibilities on some students to provide support to their family which can hinder social and academic integration at college.

Findings in this chapter support the notion that in low-income families, a close relationship with parents exerts positive effects on the extent to which college students will become involved with campus peers, and ultimately the decision to stay at college into the second year. This relationship is mediated by the student's sense of perceived self-efficacy or the belief that one can cope with adversity and perform new or difficult tasks (Torres & Solberg, 2001; Solberg et al, 1998; Hamann, 1997). Students who had secure emotional attachments with parents were more likely to feel confident in their ability to adapt and be successful in their transition to college. This heightened sense of self-efficacy in turn made it more likely that the student would reach out socially and establish friend relationships, either informally or through formal campus organizations. Students who became socially integrated at college in turn were significantly more likely reenroll at the college the following year, a finding consistent with prior research.

Chapter findings also suggest that financial responsibilities to family indeed matter in whether the student remains at college. When students in the study sample provided regular cash transfers to parents, they were twice as likely to work 20 or more hours each week compared to those who did not, net of their background, family finances and place of residence. Extensive work in turn reduced academic performance during the first year, likely by limiting the amount of time available to the student to study and focus on academics, and by extension was associated with the likelihood of remaining enrolled (Bozick, 2007). Overall, regular cash

transfers from student to family were associated with 7 % lower odds of second year enrollment. More than one out of ten students at four-year institutions reported providing regular cash payments to family, whether in response to the family's acute economic need or to familial norms of reciprocity which obligated the student to pool his or her own financial resources with those of other family members. College students such as these therefore face the added pressure of navigating competing responsibilities—providing needed support to help ensure the immediate economic survival of their family, while also working to pursue their own longer term academic goals.

Although the hypothesized model predicted that time spent caring for another family member would be associated with a lower likelihood that a student would become socially integrated with college peers, this was not the case for students in this study. There was some evidence that family care responsibilities was associated with reduced academic performance during the first year at college, but the standard error of the estimate was too large to determine whether the effect was real or spurious. Nevertheless, it may indeed be the case that the observed absence of a relationship between family care and other variables in the model actually reflects the ability of the students in the study sample to successfully navigate competing family care and school responsibilities. Carework, for example, may be more flexible and/or episodic than paid employment. Students in sample were asked how many hours they had provided care for another family member in the prior week. Among those who reported more than ten hours, it is quite possible that the actual number of hours varied from week to week, or that care responsibilities did not continue throughout the school year. Further, the coefficient between family care and social integration was positive, albeit non-significant. This suggests a possible relationship between family care and emotional support and/or self-efficacy. While no such relationship was

present in the data from the current sample, a more refined measure of family care at two or more time points during the first year might yield different results.

Other limitations of the analysis included the use of cross sectional survey data to explore directional pathways, as well as the possible exclusion key variables. Social integration, for example, was measured during the student's first semester at college, contemporaneously with work and family care behaviors. However, the state of a student's peer relationships during the first year of college is not static, but rather evolves over the course of the year. Measurement of social integration at the end of the first year might have therefore altered some of the observed relationships. Also, although the model includes a host of covariates as controls, it cannot be considered a causal model due to the possibility of one or more omitted variables related both to family dynamics and to the outcome of persistence. One such variable is the student's commitment to the institution upon entry that was unfortunately unavailable for the study sample. Institutional commitment, which may change over the first year of college as a result of the student's academic or social integration at the school, is a key factor highlighted in Tinto's theory and has been shown to relate to the ultimate decision to leave college (Pascarella & Terenzini, 2005). Finally, it is important to note that the definition of persistence used in this chapter—remaining enrolled at the initial institution of attendance—was chosen to maintain consistency with Tinto's theory. Yet this relatively narrow definition differs substantially from that used in Chapter 2 analyses which specified reenrollment at any postsecondary institution in order to examine the relationship between family dynamics classes and the likelihood of stopping/dropping out of postsecondary education altogether. The reported 76 percent persistence rate in this chapter should therefore not be confused with the overall persistence rate among four-year students in the analytic sample of 88 percent since it does not account for institutional transfer, whether to a four-year or a two-year institution.

Chapter 5
Conclusion

1. Study Summary

The purpose of this dissertation was to examine the family dynamics patterns of economically disadvantaged college students, and their related influence on first year college adjustment and second year persistence. The study drew on theories of family capital (Gofen, 2009; Furstenberg & Kaplan, 2007; Coleman, 1988), and family kinscripts (Stack & Burton, 1993), to frame social support between low-income college students and their families as a two-way exchange process. Family dynamics were defined as the exchange of material and non-material resources within a family—particularly between parents and children—as well as the specific norms and quality of interpersonal relationships which condition the exchanges. This definition is in sharp contrast to the prevailing class-based view that assistance during college flows only one way from parent to student—a view which heavily influences academic research on low-income students, as well as federal and state financial aid policy.

The study was based on data from a unique statewide sample of traditional-aged low-income undergraduates entering college for the first time in the fall of 2008. All of the students in the sample qualified for federal Pell Grant receipt during their first year of college, and came from economically disadvantaged families earning just $27,000 per year on average. Using both quantitative and qualitative data from student surveys, interviews and academic records, the study brought empirical evidence to bear on the prevailing normative theory that low-income families simply act as barriers to the postsecondary academic success of their children due to financial constraints (Corrigan, 2003) or lower levels of "college knowledge" (Pike & Kuh, 2005). Study findings highlighted the many ways that disadvantaged families do support their

children in college, but also illuminated the complex tradeoffs low-income students may face when navigating the pursuit of individual goals alongside responsibilities to fulfill family obligations.

2. Summary of Major Findings

2.1. Chapter 2: Family Dynamics Typology

In Chapter 2 I used latent class mixture modeling to examine variation in family support exchanges within the study sample. Mixture model results indicated the presence of four distinct subpopulations of low-income students defined by the relative levels of instrumental and emotional support they received from their families, as well as provided to their families. For ease of reference, I named these groups "Self-Sufficient," "Interdependent," "Medium Support," and "High Support." Closer examination of the support exchange patterns within and between these groups revealed that while many students in the sample appeared not to receive any money or other forms of instrumental support from family during their first year at college, the majority in fact did receive support—some a great deal of it. Chapter analyses also showed that the latent group structure identified in the mixture model was closely linked to the financial resources possessed by the family as represented by group estimates of average parent income, assets and expected family contribution (EFC) amounts. Students in the Self-Sufficient group, who tended to receive little if any material support, were far more likely to come from the families with the few financial resources at their disposal than those in the Medium and High Support groups. Yet there were many students in the higher support groups who also came from very economically disadvantaged families as represented by the proportion of students in those groups qualifying for a zero EFC amount. This suggests that the level of material support a student receives during college, and the amount of financial resources at the family's disposal may not be as tightly

linked as one might think. A considerable number of parents and families with few if any financial resources were nevertheless finding ways to provide financial support to their college-going children. Also supporting this notion were findings that variation in levels of family support did not track closely to the student's actual financial need as represented by their net price of attending college. Although reported levels of family support were very different between the Self-Sufficient, Medium Support and High Support groups, their average net price and net price distributions were strikingly similar. This tends to call into question the basic assumption underlying calculation of the EFC and distribution of need-based aid that students can actually access financial support through their family to help cover the remaining costs of college not covered by grant aid.

Mixture model results also indicated that family 'kinwork'—support provided by the student to the parents or family—was an extremely common practice among students in the sample. At least one third of the students in each family dynamics group reported spending time caring for a younger sibling or ailing relative in the week prior. Among Interdependent students, the rate was far higher at close to 50 %. Direct financial payments to family were also exceedingly common in the sample, averaging 12 %. The practice was present in each of the four family dynamics groups, but again was particularly common among Interdependent students. It was notable that these kinwork behaviors in the Interdependent group, along with a much higher likelihood of living at home, attending a local college, and working extensively, were defining differences between the Self-Sufficient and Interdependent groups. These groups were both associated with being from a very low-income family, and were characterized by their similar lack of financial support from parents. Nevertheless, students in the Interdependent group had apparently made the decision to live at home and attend a college locally, while their peers in the Self-Sufficient group had decided to leave home and attend a non-local college. While certainly not conclusive,

the much higher rates of kinwork and coresidence among Interdependent students compared to Self-Sufficient students suggested that preexisting kinscripts arrangements may have been more prevalent in Interdependent families. Also supporting this hypothesis was the higher rates of students from Asian and immigrant families in the Interdependent group—a pattern consistent with existing research linking coresidence during young adulthood to norms around family resource sharing in those populations (e.g. Britton, 2013, Swartz, 2009).

Finally, simple predictive models controlling for academic ability and the college the student attended showed the family dynamics group structure did not appear to be related to differences in GPA or credit accumulation during the first year of college. It was, however, related to the probability of returning to college the following year. Membership in both the Self-Sufficient and Interdependent group was associated with a significantly reduced likelihood of persistence in to the second year—resulting in probabilities of persistence around 7 to 8 % lower than the Medium and High Support groups.

2.2. Chapter 3: Student Descriptions of Family Dynamics

In Chapter 3 I expanded on the quantitative results from the prior chapter by turning to in-depth interviews conducted with a subset of students from the study sample during their first year in college. Though not captured by the quantitative data, it became evident from the interviews that non-material emotional and motivational support from parents—particularly from mothers—was extremely instrumental in helping students successfully make the psychological and academic adjustment to college. Students described emotional support and encouragement from parents as key to their emotional health and ability to persevere in the face of psychological obstacles they encountered during their first year. Many parents also actively tried to preserve their children's psychological health by shielding them from worry about the family's financial

struggles or other topics that might contribute to the students stress and overall psychological burden.

Student interviews also revealed the many ways in which students accessed informational resources through their family. Parents or other family members, for example, had often helped the student complete their FAFSA during high school, and therefore helped them secure necessary financial aid for their freshman year. Older siblings or other extended family who had college experience also often provided information on available support services or social opportunities at the college the student attended. Parents were also able to tap into their extended social and professional networks to secure resources for their child. In particular, a number of parents found useful summer employment leads for the student through friends or colleagues at work. Although interviewees typically described only nominal direct financial assistance from parents, older siblings, grandparents, or other extended family members sometimes provided additional money. This pattern was notably more common among the Asian students in the sample.

Though emotional relationships with parents were extremely important to the interviewed students, they were also frequently complex. The led some students to have ambivalent feelings about the relationship. Some felt resentful at the pressure put on them by parents to excel academically or to choose a particular field of study. Others felt that they couldn't fully share their personal experiences and challenges in college with their parents because the parents wouldn't understand. Still others described feeling considerable distress and guilt related to the financial and personal struggles faced by their families—feelings that preoccupied them psychologically during their first year. These feelings were associated with a greater reluctance to discuss their own troubles with their parents, even a reluctance to ask parents for help in order to spare them further psychological burden. These tendencies were more common among

students in the Self-Sufficient group who were receiving little material support from parents during their first year at college. Taken together, they suggest that in severely low-income families, young adults' access to all forms of support from parents, whether instrumental or emotional, may be limited due to feelings of estrangement rooted in the family's financial struggles.

Students also spoke of their strong feelings of obligation to family, and desire to reciprocate parents for the sacrifices they had made in raising the student. Notions of obligation and reciprocity to other family members were often presented as important value systems or norms thst helped bond the student to his or her family. When those norms were future oriented, meaning the student viewed attainment of a college education and subsequent career as instrumental to their ability to give back to parents later in life, they promoted a strong sense of determination and work ethic in the student to succeed academically. Bonds with parents based on trust and norms of reciprocity also promoted positive and responsible academic behaviors by exerting psychological pressure on the student to live up to the parents' academic expectations.

Yet for some students—particularly those in the Interdependent group—feelings of obligation to provide kinwork, or current support to family, were prominent. These appeared to be rooted in the family's immediate economic need, but also in preexisting norms of interdependence and intergenerational reciprocity, especially among the Asian and African American interviewees. Kinwork was typically described as some combination of direct financial assistance to family, and time spent caring for siblings or other relatives. These family provider and caretaker roles were generally not new, but rather an extension of roles the student had assumed during adolescence. Preexisting family kinscripts arrangements appeared to contribute to the decision to live with family during college, as well as to work extensively while pursuing

studies. And both living at home and working appeared to limit the ability of interviewees to form friendships at college, while also affecting their ability to maintain full time enrollment.

2.3. Chapter 4: Family Dynamics and College Persistence

The final analysis chapter—Chapter 4—returned to the quantitative data and used the technique of structural equation modeling to test the hypothesis that family dynamics during the first year of college affect the likelihood that students in the sample would reenroll the following year (i.e. persist). The model hypothesized that persistence would be positively but indirectly associated with emotional support from parents, and negatively but indirectly associated with family kinwork responsibilities. Model results supported the notion that a close relationship with parents during the first year of college is indeed important for low-income students by facilitating the development of peer social relationships and increased academic performance. Consistent with prior research (Torres & Solberg, 2001), self-efficacy appears to play a key mediating role. When students have a close, supportive and encouraging relationship with parents, their belief in their own ability to adapt and successfully take on new challenges during the first year of college is increased. Results also indicated that parental support during the first-year of college is indirectly associated with a higher likelihood that the student will decide to reenroll at the college the following year. Thus, for parents in low-income families, emotional support appears to be a critical tool to promote not only their child's psychosocial adjustment to college, but also his or her persistence beyond the first year.

Chapter findings also indicated that financial responsibilities to family tended to increase the likelihood of working extensively during college. Extensive work in turn reduced academic performance during the first year, likely by limiting the amount of time available to the student to study and focus on academics. This in turn sharply reduced the likelihood that the student

would reenroll the second year. Overall, regular cash transfers from student to family were associated with 7 % lower net odds of second year enrollment. Since more than one out of ten four-year students in the sample reported such payments to family, the observed relationship seems non-trivial.

3. Discussion

This study further highlights the class-based understanding of parent involvement during college. Popular discourse depicts the parents of the current crop of college-going young adults as "helicopters" intrusively managing their children's academic pursuits and regularly intervening with higher education faculty and staff. Helicopter behavior has been attributed to a greater sense of entitlement rooted in the baby boomer generation (Gibbs, 2009). Yet studies such as this one, which focus on working class families, reveal that these depictions paint a very one-sided picture of parental involvement in higher education. The parents represented in this study, while technically "baby boomers," were never described as directly intervening or communicating with the campus. This did not mean, however, that they were uninvested in the educational goals of their children. Parents were frequently described as proud and emotionally invested in their child's decision to pursue college. These findings lend further support to the notion that characterizations of hovering parents are largely representative of upper-middle class behavior. Parents in this study were often highly involved in academic pursuits of their college-going children, but in ways that were supportive and motivational rather than overprotective. This highlights the need to further explore class-based variation in parental involvement among college-going young adults, particularly within different institutional contexts.

This study also reveals the complex ways in which economically disadvantaged college students and their families work to support each other—particularly in situations where the

student is coresiding with family while attending college. The study contributes to the literature in the fields of both higher education and sociology of the family by revealing the interplay between intergenerational support exchanges and the first year of college. The findings tend to complicate the normative view that separates home and college life among traditional aged students. For many low-income students, particularly those from minority or immigrant families, college responsibilities may exist *on top of* responsibilities to parents and family. The study also demonstrates that the extensive work schedules adopted by many low-income students during college may not simply be motivated by their own financial needs, but also by the needs of their parents and family. Such students may be forced to assume the equivalent of a double shift in order to balance their academic and family obligations in an effort to achieve success in both domains. Although some are able to do this successfully, the decision to work in order to provide assistance to family clearly comes with academic tradeoffs.

The study's focus on economically disadvantaged students in higher education also adds to larger discussion of family engagement and how families can support their children in college. Many families with very limited financial resources do find ways to provide financial assistance to their children attending college via help from parents, siblings, grandparents, or other extended family members. And this is true even among the families with the fewest financial resources at their disposal. But just as important are the non-financial resources these families can provide. First and foremost among these resources is emotional support. When parents are able to maintain a close and supportive relationship with their child entering college, it instills a sense of confidence and security that can help the child make a successful psychological and social transition during the first year. When parents regularly communicate with their child about their college experience and provide a sympathetic ear to their child's inevitable struggles to adjust to college life, it can help the child develop a critical emotional toolkit that promotes

resilience and the ability to manage daily stress. High support parents also tend to prioritize their child's postsecondary pursuits over family responsibilities, and work to protect the child from financial and personal stressors in the home environment that can add to the student's emotional load. Study findings indicated that this type of support is particularly important in low-income families where students may actually feel more distance or estrangement from parents in times of family stress, and may be less likely to ask for help from them as a result. Finally, low-income families help children help children in college by providing important informational support. This may include direct assistance with financial management and the development of financial literacy skills. But low-income families also work to secure resources for their child such as job leads or assistance applying for financial aid by tapping into their extended social networks.

Findings from this study add to the discourse surrounding boundaries between home and college life. Students who come from families with few economic resources and where norms of interdependence, obligation and reciprocity prevail may face particular hurdles during the college transition process. Students who do not live at home during their first year may be more buffered from the regularity of pre-existing family kinwork roles and helping behaviors established prior to attending college. But for those who do remain at home, establishing boundaries between the demands of family and college appear far more difficult. When economically disadvantaged families rely on young adult members for support, it does not mean they do not also support the child's postsecondary aspirations and goals. On the contrary, low income families often have high academic expectations for their children which push the child to excel academically. But the economic needs of the family may also force all family members, including those attending college, to pitch in and pool resources to ensure the family's survival.

This study further contributes to a better understanding of the many responsibilities that low-income students must juggle in the academic, work, and home environments while attending

college. Involvement in the academic and social spheres of college is particularly important for retention of underserved students who are challenged to balance competing demands of family and school while also working long hours (E T Pascarella et al., 2004). Study findings suggest that despite these challenges, many low-income students are able to make friends and become socially engaged at college. Yet for a subset of low-income students who have extensive family and work responsibilities, social engagement and academic success during the first year of college appear to be far more difficult. These students, who tend to live with family, are actively engaged in supporting and maintaining the home environment while pursuing their studies. Study findings suggest that the assumption of adult support roles in the family tends to begin during adolescence, but that for some students the roles carry over into the college years.

Many young adults who have extensive family obligations choose to forego higher education altogether in order to meet parents' expectations that family comes first (Lindholm, 2006). This group of college students is therefore different in their ability to successfully make the transition. Nevertheless, many are challenged to not let the physical and emotional burden of supporting parents and family interfere with their academic and social adjustment to college. The study further suggests that both women and men from low-income households face challenges in managing home, work, and family responsibilities. Both men and women in the study sample reported fulfilling family support roles in terms of care for younger siblings and the provision of financial support. In this sense, the instrumental needs of the family appeared to take precedence over gendered helping behaviors.

4. Limitations

Although this study revealed important patterns of support exchanges in low-income families and how they helped shape the first year college experience, there were a number of limitations

to the analyses and data. As noted in the first chapter, the analytic sample used for the study was generally more economically advantaged than the sample from which it was drawn, and students in the sample were more likely to attend a four-year rather than a two-year college. This was due to criteria used for sample selection including the requirement that a composite ACT score was available for the student. Because measures of high school GPA and class rank were not available for the sample, the ACT score became the only way to account for differences in pre-college academic preparation in the analyses. However, an unfortunate side effect of this decision was that sample external validity was by necessity compromised. In particular, economic and social variation among two-year students was very likely constrained by this decision, thereby resulting in a two-year analytic sample with generally higher average levels of academic motivation and family financial resources than the population of two-year students as aa whole. While only speculation, it is likely that had academic and survey measures been available for the entire parent sample, the proportion of students categorized in the Self-Sufficient and Interdependent latent family dynamics classes would therefore have been considerably larger.

A second limitation relates to the data used in the study analyses. Neither the design of the original survey instrument nor the design of the student interview protocol was specifically aimed at collecting extensive information on patterns of family support exchange and interdependence. Fortunately both did include questions on the topic that made the present study possible. Nevertheless, the extent to which interviewers probed on the topics of family support exchange, obligation and reciprocity varied a great deal. A deeper exploration of the topic would therefore likely require a more targeted and structured interview protocol. Survey measures, for example, on the specific amount and frequency of financial payments to family, the extent to which sense of financial obligation to family is current versus future oriented, and the types and

frequency of non-financial family kinwork students perform would also greatly inform future studies of this type.

Finally, the quantitative analyses in the study were limited in a number of ways by data availability. Although it is quite possible that family debt was an important driver behind the latent family dynamics classes estimated in Chapter 2, unfortunately no measure of overall family debt was available for the sample. The use of cross sectional survey data in the structural equation model to represent what is essentially a longitudinal process also posed a problem. The state of a student's peer and family relationships during the first year of college, for example, are not static but rather evolve over the course of the year, as does the student's work behaviors. Longitudinal measures would therefore have been far preferable in model estimation. And while the Chapter 4 structural model included a host of covariates as controls, it was still subject to omitted variable bias due to the possibility that one or more variables related both to family dynamics and to the outcome of persistence were missing from the model. One such variable is the student's commitment to the institution upon entry which was unfortunately unavailable for the study sample. Institutional commitment, which may also change over the first year of college as a result of the student's academic or social integration at the school, is a key factor highlighted in Tinto's theory and has been shown to relate to the ultimate decision to leave college (Pascarella & Terenzini, 2005).

5. Implications

5.1. Practice and Policy

At most colleges and universities in the United States, students go through some form of freshman orientation. As part of that orientation, parents often participate in their own program during which they learn about the developmental changes that their college-going children will

experience during college, and about the variety of campus services and resources available to students (Coburn & Treeger, 2003). During this process they are often encouraged to begin "letting go" of their child. The findings of this study tend to support efforts of such programs whereby parents are encouraged to begin promoting their child's independence from family. In particular, special efforts should be made in parent orientation programs to emphasize the complications that may arise if a student chooses live at home while attending school. In absence of physical separation, parents may be tempted view the child in the same family roles that preceded college. Parents must therefore be made aware of the risks to their child's success in college that are inherent when he or she tries to juggle academics, work, and family responsibilities, as well as the financial repercussions of not completing college in terms of reduced earnings and debt.

Advice to parents about letting go must also be partnered with advice about ways of holding on. A secure and supportive emotional relationship with a child in college is a critical way of facilitating that child's success, and may be even more important in disadvantaged families when children attend a four year college with students from very different social class backgrounds (Stuber, 2011). Parents should be encouraged to continue to promote family value systems of solidarity, shared support and reciprocity since these values provide critical 'bonding' social capital which ties the student to the family support network, and often results in strong feelings of motivation among low-income students to succeed in college. It may ease the transition to college by making students secure in an identity rooted in family values, and help students keep their college responsibilities in perspective by reminding them of their motivation to pursue higher education in the first place.

Findings from this study also lend support for more specialized programming and services that empower low-income parents and relatives to support college-going children in their

persistence efforts. Families can employ several strategies that communicate their support including checking in regularly to see how students are doing, being available to listen in times of crisis, providing what financial assistance they can including food money for incidental expenses, trusting students' decision-making, and maintaining high achievement expectations without pressuring students to make major and career decisions against their wishes. Economically disadvantaged families should be made aware that non-material forms of support are as important to students' success as the tangible supports. Information should also be actively disseminated to parents about the variety academic and counseling support programs and services available to their child on campus so that they can encourage him or her to make use of those resources whenever possible.

At the policy level, findings in this study indicate that existing assumptions underlying the calculation of student EFC and therefore the amount of aid the student receives are on shaky ground. EFC calculations generally fail to take into consideration the possibility that low-income college students may also serve as breadwinners for their families. Yet the results from this study indicate that many in fact do make regular cash transfers to their parents. Further, the widely differing levels of family support between the Self-Sufficient, Medium Support and High Support groups despite similar average net prices and net price distributions casts doubt on the notion that students can neccesarily access needed financial support from their parents just because financial returns indicate the parents have the ability to pay.

Although a policy solution to the problem of differential access to family resources may be more difficult, the first issue might be addressed by loosening the requirements for independent status on the Free Application for Federal Student Aid form. Currently, students may declare as independent if they have “dependents (other than your children or spouse) who live with you and who receive more than half of their support from you” (FAFSA, 2014). This is an extremely

high standard that could be modified to account for situations where the student is providing lower levels of financial support to parents or family which nevertheless might prove a burden during college. Further, federal needs analysis rules could be modified to allow for a negative expected family contribution (EFC). Current rules prohibit the EFC from falling below zero even though the federal-aid formula often results in negative numbers. Allowing a negative EFC in cases where the family is very poor and the student is providing direct financial support would allow more grant aid to flow to the student which might offset the need to work as extensively.

5.2. Theory and Future Research

For many years, research on college student retention has been largely guided by the Tinto's interactionalist theory (Tinto, 1993) which originally asserted that college students need to separate from their families and past communities in order to become integrated into the college environment. Tinto (2006) later revised this argument in light of scholarship which recognized the important resources and support that many families provide to their children in college, especially those from traditionally disadvantaged populations (Nora, 2001; Tierney, 1992; V. Torres, 2003). Findings from this and other studies suggest that a balance of family connectedness and individuation may best serve traditional-aged students from economically disadvantaged families in their pursuit of higher education.

The "appropriate" family-school balance is complicated by the considerable variation in family structure, level of connectedness, quality of family relationships, economic need, and pre-existing norms reciprocity among students from low-income families. For many students, maintaining levels of connectedness with family provide important support and motivation to do well in college. Yet for some, physically and emotionally separating from family may be necessary to fully engage with the college environment. Emerging theoretical frameworks which focus on underserved traditional aged college students should therefore account for the

complexity in family dynamics and influence when trying to explain the impact of parents and other family members on educational outcomes.

Gofen's (2009) family capital framework emphasizes the “ensemble of means, strategies and resources embodied in the family’s way of life that influences the future of their children.” (p. 115). The current study expands on this theory by asserting that college-going children from disadvantaged households also invest important resources and support that benefit the family. As these children move through adolescence and early adulthood, family expectations to reciprocate support may become more visible, and family reliance on the support the student does provide may increase. In such families, children with postsecondary aspirations must navigate and negotiate their role within the family in ways that also allow them to achieve academic goals. This may require a difficult collective shift within the family in kintime expectations. As the goals of young adulthood come to be increasingly defined within the family in terms of pursuing postsecondary education, children may be more able to defer family support roles until they attain a degree.

The family kinscripts framework and particularly the notion of kintime emphasize the changing nature of family roles and responsibilities across different developmental stages in the life course. This study highlights the need for a greater life course focus when studying the exchange of support between low-income college students and their family members. As student interviews made clear, support exchange behaviors do not start at college entry but are established in adolescence or earlier as children become socialized into the cultural norms of the family. For some children, these patterns may remain stable during the transition to adulthood and college. While for others, college entry may signal a transition in behavior. More research is therefore needed on how family support behaviors shift as students enter college.

The complexity of family dynamics uncovered in this study highlight the importance of mixing quantitative and qualitative methods in future studies of this type. While quantitative methods are useful to understand how aspects of family dynamics relate to college outcomes, it is questionable whether family dynamics can be fully captured and represented by quantitative data alone. This is particularly true with regard to prevailing family norms and values, as well as family beliefs about kintime described earlier. Reliance on both quantitative and qualitative data may help researchers avoid conclusions that suggest that family connections are always important to the postsecondary academic success of disadvantaged students. As findings in the current study show, some types of separation from family may indeed be beneficial to some types of students.

Finally, this dissertation captured family dynamics during the first year of college only. Future research could benefit from longitudinal designs that examine how support exchanges between low-income undergraduates and their families change over time. As these students continue to move through college, for example, does emotional support from parents become less important? Do obligations to family change and perhaps dissipate after the first year when students have the opportunity to negotiate their family roles? Answers to such questions would help flesh out an understanding of whether family continues to play a pivotal role throughout college.

Appendix A: Michigan Study of Adolescent and Adult Life Transitions (MSALT) Parent Support Scale

In the past year, how much support have you gotten from your parent(s) or guardian in each of these areas? (Not at all; A little bit; Some; Quite a bit; An immense amount)

1. Made you feel worthwhile, special, and unique.
2. Shared a reliable relationship with you that will last no matter what.
3. Helped you to become the kind of person you want to be.
4. Made you feel like you are good at many things.
5. Made you feel better when you are upset.
6. Made you feel admired and respected.
7. Made you feel proud of yourself.
8. Listened to you when you feel stressed.
9. Provided money for your education.
10. Provided room and board while you obtain education.

Appendix B: WSLS Freshman Interview Script

Notes:
Must ask (bolded)

Bullets: Probes and/or alternative ways to engage in the same discussion.

Any directions embedded in the script are in italics.

Anything not in italics is something to be said out loud.

OVERVIEW OF THE STUDY:

I want to start by describing what we're doing in this project. We hear from a lot of college students that getting through college can be tough—plenty drop out every year-- and we're trying to figure out the ways to make it easier. We're especially trying to learn more about what it's like for students on financial aid to make their way through college. That's what WiscAid's all about.

You already took our survey, and I have a copy here in case we want to refer to it. But surveys only tell us so much about peoples' opinions, and we wanted to hear it right from you. So thanks for being up for talking with me!

CONSENT:

I've brought my recorder so I can give you my full attention but also remember what you've said. Is it okay if I use it? Thanks. Remember that if you're ever uncomfortable, tell me to turn off the tape recorder – that's perfectly fine. Also remember that you don't have to answer any questions you don't want to answer – we'll just skip them and keep going – and if you decide you don't want to participate in this project any more, that's totally fine too – there are no hard feelings if you don't want to be interviewed any more, and of course, if you don't want to participate in the study any more, it won't affect your financial aid or anything like that.

Go over the consent form.

Do you have any questions?

Do you want to be interviewed?

Have the consent form signed

Great. Let's get started…

Start Recorder. "Today is X date, it is TIME and this is NAME interviewing # *[PROJ ID]*"

COLLEGE SO FAR….

So, tell me about yourself, anything you'd like.

- Tell me a little about where you grew up, went to high school, that kind of thing.
- Can you tell me about your life last year, before you came here?
- How did you feel about graduating from high school?

What has college been like so far?

- What made you decide to come here?
- How is this place like what you expected? What's different?
- What are some things that you really like here?

What kinds of challenges are there to you succeeding here?

- What are some examples?
- What would succeeding here mean to you?

Do you think that this place is a good fit for you? Why/why not?

- Do you feel like you were prepared to be here? In what ways—what prepared you? Can you give me some examples?

- What has surprised you most about this place?

Can you see yourself here next semester?
If not, where do you think you'll be?

- If not, would you consider transferring, dropping out?

- Where would you transfer and what would be different, what would you do?

SOCIALIZING & TIME USE

I'd like to talk just a little bit about your friends.

Who are your friends this year – are they the same as last year, or are you making new friends?

- Do you have good friends on campus? How did you meet them?

- Are most of your friends in college like you? Do you feel like you can talk to them about personal matters or concerns?

- What about your friends from home? Do you keep in touch with them? How has coming here changed your relationship with them?

What are the kinds of things you do when you're not in class?

- With friends?
- Organized activities? (*e.g. religious group, sports teams, club, etc.)*

Do you have a job these days?
(*If yes)*

- What's it like?
- Do you like it?
- How did you find it?

(*If job=yes)*

How difficult is it to divide your time between work and school? How do you do it?

Do you think you'll have to work the whole time you're in college? Why?

How much time do you spend on campus?

- Is that just while you're in class, or do you spend time here out of class, too?

- Are you living on-campus (*if applicable)?* Challenges of living on vs. off? Commuting time? How hard is it to get here?

- Would you want to live on campus if you could? Do you think the experience would be different?

HOME and FAMILY:

How often do you talk to your parents since you started college?

- Who else do you talk to from home? Siblings? Friends?

- What do you talk about?

How does your family help you?
How do you help them?

Some students say that when they got to college they felt like they had to make a lot of important decisions. How do you feel about that, have you had to make any big decisions lately?

- Can you give me some examples?

- How did you come to the decision you did? Who did you talk with?

- What was important to you?

- Is this the kind of way you've always made decisions (is this somehow new or different)…

MONEY AND AID

At this point how are you feeling about paying for college?

- Does it feel doable, affordable to you?

What's your aid like now? What's in your package?

- Did you receive any grants or scholarships?

(*Wait for them to bring up FFWS).*

If "I don't know" then go to the survey, and see what they said, and if FFWS or anything else interest, follow up.

- Did any these awards change your thinking about getting through college?

If "FFWS"—then ask about "How did you find out about it? Etc"

There's been a lot of talk about "private" loans lately—do you have any of those? How did you get them?

In your opinion, who should be responsible for paying for college?

- Should it be primarily you, or someone else?

Some people say that college is college, and that how much money you have doesn't really matter – Do you agree with this?

- How does money—or not having money—matter for you right now?

- Do you think college would be different if you had more money? If so, in what ways?

- How would having access to more money affect your life right now?
    - What are you willing to do to get more money?
    - How would you go about getting more money?

Since we're really to understand how financial aid works--or doesn't work--are there other things going on that I haven't asked about, which you think are important?

Wrap-Up

We've covered a lot today, but is there anything else you'd like to share so I can understand better how college is going for you?

It's been really great getting to know you…I look forward to hearing more in the future about how things go for you.

I'd like to talk with you again next semester.

Based on what you said earlier, it sounds like you will be/ might not be here next semester?

What's the best way to get in touch again? (Fill out the contact form).

[End of interview – stop recording.]

Appendix C: Qualitative Codebook

A. GENERAL CODING INSTRUCTIONS

WSLS interviews tell the story of a particular period in a participant's life (i.e. the first two years of college). Read through and code all interviews for a participant before moving on to another participant's set of interviews.

As you read through a participant's interviews, make "profile" notes of the participant (e.g. family educational background, family structure, parents' employment status, participant's employment status, major past events or issues in participant's life, major current events or issues in participant's life). Make particular note of changes in the participant's life or family situation during the first two years of college.

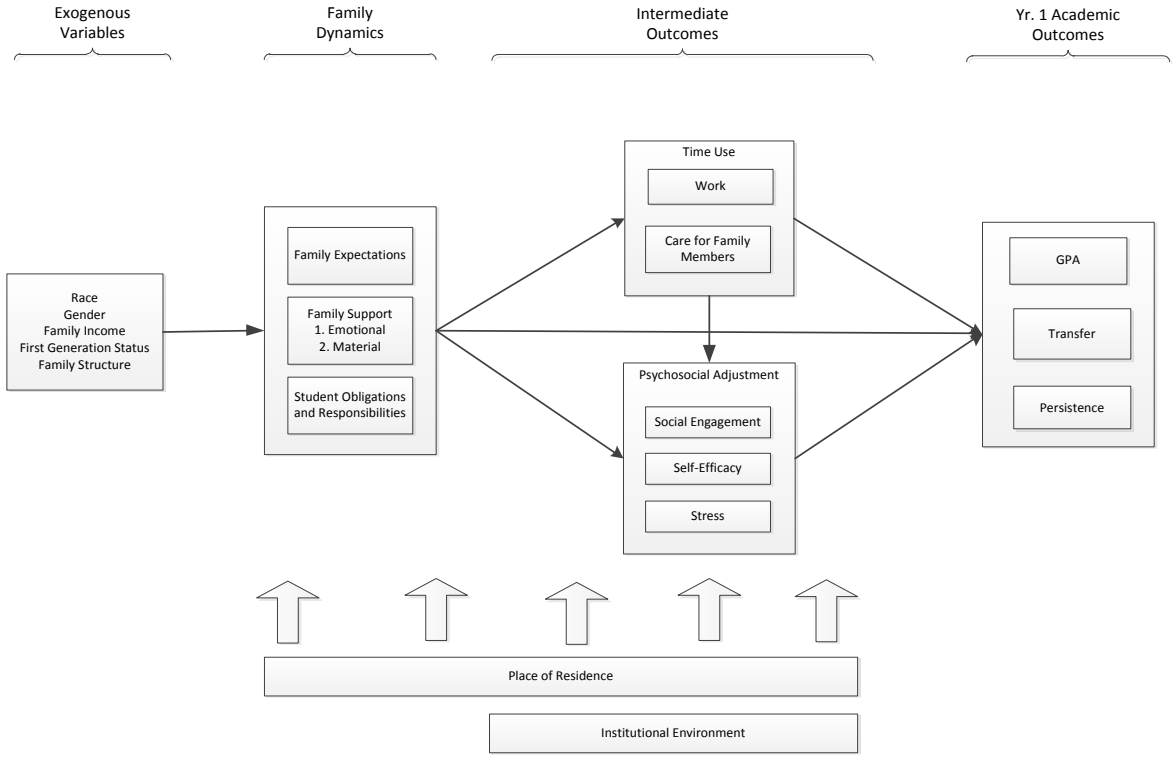
1. Excerpt sections of text to code based on when a topic is first raised by the interviewer (i.e. when the interviewer asks the respondent a question) and when the respondent finishes their thought related to the question asked.
2. Include follow-up "probe" questions made by the interviewer in the excerpted section if the discussion continues on the same topic.
3. Create a new excerpt if the follow-up questions made by the interviewer substantially shift the conversation away from the topic previously discussed.
4. If a conversation topic is discussed and then the conversation veers away from the topic only to return to original discussion later on, create separate excerpts for each time the same topic is discussed.
5. Include both the question(s) and answer(s) in the excerpt you code.

Remember:

- Coding is not simply about dumping sections of data into bins. Questions will constantly come up about passages that are ambiguous or defy established rules. Creating memos in Dedoose will ensure that we can track common "exceptions" and revise the codebook accordingly.
  - The mere mention of something that could belong in a category does not necessarily warrant coding that particular section of text.
  - When in doubt, wait to code an excerpt and write a Dedoose memo attached to the excerpt with your question.
  - As you read through the interviews and code passages, possible themes may begin to emerge. Record these ideas as Dedoose memos attached to the relevant excerpt so I can read through them later.
  - If the human subject code begins with a 1, it means he/she is a 4-year college student who is receiving a FFWS scholarship.
  - If the human subject code begins with a 2, it means he/she is a 4-year college student who is not receiving a FFWS scholarship.
  - If the human subject code begins with a 3, it means he/she is a 2-year college student who is receiving a FFWS scholarship.
  - If the human subject code begins with a 4, it means he/she is a 2-year college student who is not receiving a FFWS scholarship.

B. DEFINING FAMILY DYNAMICS

For the purposes of this study, family dynamics are defined as the exchange of material and non-material resources within a family—particularly between parents and children—as well as the specific norms and quality of interpersonal relationships which condition the exchanges. The study also operationalizes family dynamics and their relationship to academic outcomes using quantitative measures according to the following model:



Because this is a mixed-methods study, the ability to compare quantitative and qualitative data becomes extremely important. The qualitative coding structure described in the following section was informed first by a series of a priori quantitative measures—family emotional support, family material support, family obligations (kinscription), and family expectations related to college. However, the remaining codes have emerged from my initial read of a subset of the interview transcripts, and should be considered a work in progress. As we continue to read through the interviews, it will be important to communicate with each other about the ongoing coding process by using the memo function in Dedoose—particularly when passages do not fit neatly into the existing code structure.

C. CODING CATEGORIES

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
Kintime	References to a time in student's life when they are expected to give or do kinwork.	*R:Well, I mean it's just something that I always knew I would have to do. I always knew I would have a job in college and a lot of my cousins who came from…we're pretty middle class and it's always been very clear that most of us would be paying for our college.* *I:Mm-hmm.* *R:Like one of my cousins or both of my cousins who went here were bartenders all through college and they're fine now so I think it's…I'm not really that outstanding in my family.* *I:Mm-hmm.* *R:Just because it's what was expected, I guess but when I get here it's just a little different and so.*	Interviews should already be assigned kintime code. Only assign if code is clearly missing from an excerpt.
Kinscription	Any references to consequences/ power/stress/pressure of doing kinwork of any kind	*I:Yeah. Well you said already I mean so like tell me about food like enough money for you. How does that work?* *R:Yeah. My Mother, like my Mother has four kids already. That's why I need money like for food cuz I don't want to get in the way. That's more money that she gotta spend because already she got four kids who live with her. And me just getting in the way that's how I feel right there. So I don't want to get away with her doing that. I don't want her to spend more money so that's why I need extra money to take care of myself.*	Interviews should already be assigned kinscription code. Only assign if code is clearly missing from excerpt.
Kinwork—Emotional	Student provided emotional support by physically being with their family. (i.e "just being there for them)	*R: Like a lot of it was emotionally like I mean with after the divorce and stuff. I mean I was there, my other sister was there, but then my sister went to college, so it was just my mom and I, especially*	Interviews should already be assigned kinwork-emotional code. Only assign if code is clearly missing from excerpt.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
		down in Mukwonago where like I had to be there for her. She still needs us and I still need her, I mean obviously she's my mom, but I mean she's gotten a lot better with it. I mean she dated a couple of people during the summer, broke up, it was devastating for her I mean I spent a couple days with her, helped her through it and everything, but now I mean she just…she's getting better at it, so she's getting more confident about everything, so I mean. *I:So like being there for her like let's say Mukwonago, like what would that look like in terms of like you kind of taking care of her?* *R:Like when she did date a lot, I mean she'd break up and it'd just devastate her like sometimes she would stay home from work, like I mean she just needed…she deals with emotions differently than some other people…just someone to talk to about everything, yeah, probably in that way.*	
Kinwork—Financial	Student gave the family income, through any means (working to pay for house/apt bills, an/or giving money to family)	*I: Have you used any money from your refund check to help other people, or give anybody else money?* *R: I give my mom a little bit like if she needs anything or something just kinda help out.* *I: Would that be for bills or groceries?* *R: Like groceries yeah.* *I: How often would you say that happens?* *R: Like every couple of weeks.* *I: Is it like a small amount or?*	Interviews should already be assigned kinwork-financial code. Only assign if code is clearly missing from excerpt. Do not code routine gift giving in families such as at Christmas or for birthdays.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
		R: It's kinda like maybe half of what she needs or something to kinda help out	
Kinwork—Time	Student helped the family by spending time on tasks. (i.e. babysiting nieces and nephews, giving family members "rides" to places, etc.)	*I:And how about like the duties? How old is your nephew?* *R:He's seven.* *I:Ok. So do you guys kind of share parenting a little bit or…?* *R:Yeah, like my sister obviously she takes like more of the responsibility but like if like she can't find a babysitter and I was like, well, I can babysit. I'll take the responsibility, I'll watch him. My brother will watch him, kind of just like, I guess share him but…*	Interviews should already be assigned kinwork-time code. Only assign if code is clearly missing from excerpt.
Adulthood	The process of becoming an adult. <u>Includes</u> * References to "adulthood" * References to "growing up" * References to changing relationship with parents, particularly around independence.	*R:I think my Dad has a lot more respect for me than what he did in high school cuz I mean a lot of high school stuff was the complicated divorce thing and see I didn't really talk to him as much and open up or anything. But now I kind of am more. I think I'm becoming more of an adult where it's like I can have that open communication and he respects that a little bit more so. I think that's probably* *I:Yeah.* *R:A lot of it. And my Mom is just realizing that like I'm more independent I mean I don't need to talk to her every day or something, I mean I can get by and everything so.*	Code excerpts if they refer to the process of becoming an adult even if they do not specifically refer to parents or family.
Expectations—Academics	Expectations held by parents or other family members related to student's academic performance, college choice, course choices, or choice of major.	*I: Okay. And how did, you said you feel kind of like you're looked up to by your younger siblings?* *R: Yeah, and like everyone else. Like they're like, like my relatives put me like on a pedestal kind of.*	Expectations may be either explicitly stated or implied by parents or family members in their interactions with the participant.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
	Includes * College choice * Course grades * GPA * Course choice * Major choice	*And I feel bad because I feel like I'm scared that one day I might like fail or something and then they're going to be like ohh. But I don't know.* *I: What do you mean like they put you on a pedestal? Like…?* *R: …like they're always like, "Oh you should be like her," or "You should do this like your cousin," like me, you know they're telling their kids that. They're like "Oh she's doing really well in school, you should go and you know do the same thing she's doing," and stuff like that. And I just feel bad because like everyone is different and I kind of want everyone to stay unique. Because like I wouldn't want everyone to be like me. You know, like I want them to be successful and everything but I don't want them to be exactly like me, doing the same thing I'm doing*	
Expectations—Attainment	Expectations held by parents or other family members of student's college attainment. Includes * Persistence expectations * Degree attainment expectations	*R: So that kind of pushed me, you know to go to college and get all that stuff done. It's mostly my parents.* *I: Okay. So they were big for on college even though they didn't go?* *R: Yeah. Yeah, they wanted me to get my education, be better than they were, not follow their footsteps.*	Expectations may be either explicitly stated or implied by parents or family members in their interactions with the participant.
Family Finances	Discussion of current family finances or economic conditions. Includes * Family jobs or employment * Salary or pay of individual family members * Purchases	*I: Okay. So does that, are you kind of saying your dad is financially better off than your mom?* *R: Not really. Um, my dad's wife more so. But not my dad.* *I: Okay.*	Passages on family finances are already included in the FAMILY parent code but are not specifically sub-coded as "family finances." Do not code passages on past financial conditions of family unless they continue to present.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
	* Financial decision making by individuals within the family or the family as a whole * General family financial matters or conditions	*R: My mom has always had more of an income than my father.* *I: Oh okay, okay.* *R: But my dad's a little more stable with it because of his marriage and he stayed in the same area, the same house. I mean it was a lot easier for him.*	
Goal Influence	Family influences on personal and/or academic goals of student. <u>Includes</u> * Degree goals * Academic performance goals * Career goals * Family formation goals	*I: Oh okay, okay, wow. So how old were you when the divorce…?* *R: …I actually don't even really remember. I think I was probably 11 or 12.* *I: Wow. What was that like?* *R: Not fun.* *I: Yeah.* *R: I want to go into law, but I don't want to go into family law because of that.* *I: Because of that?* *R: Yeah.*	Should only be coded if student attributes own goal development to family in some way. Do not infer relationships.
Family Hardship	Current hardship faced by one or more members of respondent's family. Includes: * Divorce * Job loss * Homelessness * Child out of wedlock * Single parenthood * Parents don't speak English * Financial difficulties	*R: I have my…I'm under my stepmom's plan, same thing with my other sister who goes to school 'cause my mom, we use to be under her plan and everything, but then she's no longer working with where she was working. Like I don't know what happened last time when I was with you, she ended up quitting working where she use to be working 'cause that was really stressful for her.* *I: Okay, she hadn't quit yet.*	Do not code passages of past hardship if condition is not currently present. Do not code passages if hardship is experienced by student but is unrelated to family. Many hardship passages will already be dual-coded under HARDSHIP and FAMILY parent codes.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
	* Death * Family health issues	*R: Okay, so she had quit then after that 'cause it was really bad for her. She studied, she took care of stuff, she's doing real estate right now 'cause one of her closest friends from high school is in the Madison area doing real estate, really big with real estate, so.*	* Since large chunks of some interviews could be considered Hardship, determine whether to index sections of text as Hardship based on these criteria: a) the respondent talks about a hardship condition (even without referring to it as such); b) the respondent refers to a condition or situation as a hardship, even if it does not fit one of the conditions listed above; c) social science research suggests that the situation or condition is a hardship, even if the respondent does not refer to the situation as a HARDSHIP * Major life events/transitions do not automatically qualify for this category
Family Relationships	Discussions which indicate the quality of interpersonal relationships between family members. <u>Includes:</u> * Closeness * Independence * Conflict * Affection * Love	*R:My relationship with my stepmom is a lot better too, I mean, if you were wondering about that.* *I:Yeah.* *R:Her and I talk a lot more, I actually hug her, which I mean was really big for me, but I mean it's gotten a lot better, I talk to her. I've called her about my dad's birthday, getting ideas and stuff, so I mean like I feel like it's a lot more open with that.* *I:And when…is that really recent too?* *R:Yeah, end of the school year, beginning of the summer or so.* *I:And what…what do you think is behind those big changes?* *R:I feel like…I mean a lot of the reason why I was always mad at her was because what my mom*	Will require some inference. Do not code passages if they are simply about interactions between family members without any indication of the quality of the relationship. May be double coded with Adulthood

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		would say like I mean those bias in there, but now I'm just like she's a nice lady. I mean we're adults, I mean we can work it out, talk and everything and I mean I do respect her, I mean she brought my baby brother into the world, I mean, yeah. I've probably grown up dealing with that issue a lot more than what I use to be, so.	
Family Norms	Passages which reveal shared values or rules within family which condition the behavior of family members. Will often overlap with other codes. <u>Includes:</u> * Discussions of behavior that is praised by family * Discussions of behavior that is discouraged or looked down upon by family.	*I: Okay. In your opinion who do you think should be responsible for paying for college?* *R: Um, in my mind I think that the student should. Because you know the student is the one wanting to better their education, yes, parents are going to be happy that they're wanting to better their education, but the students are the ones who are bettering their education and I think it's the stereotype that parents need to help their kids out and you know pay for their college and this and that and I'm really kind of happy my parents are like you know, "We're not paying for your college." Because that makes me value college even more knowing that you know hey I'm paying for this.*	Will require some inference based on how the family reacts to behavior of its' members (including respondent). Norms will rarely if ever be explicitly stated as "family rules" by respondent. Norms do not have to be shared among all family members, but do need to be shared by two or more.
Role Model	Discussions of respondent acting as role model or mentor for other family members (e.g. younger siblings) <u>Includes:</u> * Family members "looking up" to respondent * Mentoring activities such as helping with academics, work or relationships.	*I: Okay. And how did, you said you feel kind of like you're looked up to by your younger siblings?* *R: Yeah, and like everyone else. Like they're like, like my relatives put me like on a pedestal kind of. And I feel bad because I feel like I'm scared that one day I might like fail or something and then they're going to be like ohh. But I don't know.* *I: What do you mean like they put you on a pedestal? Like…?* *R: …like they're always like, "Oh you should be like her," or "You should do this like your cousin," like me, you know they're telling their kids that. They're like "Oh she's doing really well in school,*	Discussions where other family members act as role model or mentor TO respondent should be coded under the "support" codes

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		you should go and you know do the same thing she's doing," and stuff like that. And I just feel bad because like everyone is different and I kind of want everyone to stay unique. Because like I wouldn't want everyone to be like me. You know, like I want them to be successful and everything but I don't want them to be exactly like me, doing the same thing I'm doing	
Support-Emotional	Emotional support parents or other family members provide to student. <u>Includes:</u> * Discussing life or problems of student * Advice focused on "getting by" or "getting through" something (e.g. relationship, class at school, etc.) * Listening	*R:I made the Dean's List…* *I:Nice.* *R:This past semester, so I mean all my exams went pretty well, so.* *I:How did that feel?* *R:I was really happy about it. I got a call one day from my mom, she's like "John, you got something in the mail," I was like "oh, okay, open it for me." She opens it up and it says congratulations and whatever, mom was so happy. Like this is the weirdest part, she called and told my dad even though the divorce and my mom like never talks to my dad.*	Does not include emotional support child provides to parents. Includes advice if the purpose of the advice is in whole or part to provide emotional support (e.g. relationship advice). May often be double or triple coded with informational and/or material support
Support-Informational	College knowledge or other informational resources student gets from family <u>Includes:</u> * Help finding resources at college * Help filling out FAFSA or other forms * Help finding work	*I: Yeah, cool. Do you get any financial advice from anybody like…?* *R: …well I talk to my dad about it. His wife is actually kind of an accountant. I mean like she works at a business but she does a lot of the accounting type things. But she isn't officially an accountant so I mean I talked to him about putting the money into a loan or putting it to get rid of some of the loan or something. We decided to wait. I mean I'll talk to them about financial stuff. But a lot of it is kind of on my own so.*	Code passages if information provided by family member is intended to help or benefit the student in some way (even if it didn't end up that way). Passages where parent interacts directly with college personnel should be coded here.

CODE	DEFINITION AND RULES	EXAMPLES	NOTES
Support-Material	Material support provided by family members to student. <u>Includes</u> * Money * Payment for items (e.g. college bills, housing, food, cell phone, car insurance, etc.) * Gifts of actual items (e.g. food, car, phone, clothing, etc.) * Housing (i.e. student lives with parents or family)	*R: And it's nice to cuz like every once in awhile if I do go up north, get a couple things with my Dad so.* *I:Yeah cuz he likes to take you to* *R:Sam's Club, yeah.* *I:That's nice.* *R:And I'm going up there next week so, yeah. (laughter)* *I:You'll come home stuffed.* *R:Go to Sam's Club; get some kiwi or something so.*	Code passages even if student and family share costs of the item. Do not code passages if student bears entire cost.

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