

College as a Potential Route to Social Mobility for First-Generation College Graduates and Their Families

By

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Abstract

Previous research on social mobility focuses almost exclusively on individual outcomes, leaving out the important effects individuals' educational attainment may have on whole families. This dissertation extends the literature by investigating the role that earning a degree may play in social mobility for first-generation college graduates and their families.

Paper 1 uses longitudinal quantitative data to explore first-generation college graduates' relationships with their parents, as compared to those of their continuing-generation peers. This comparison shows that parental relationships and support exchanges after college differ between these two groups. After including controls, first-generation graduates are just as likely as their peers to feel emotionally close to and receive financial support from their parents; however, first-generation graduates are more likely to live close to their parents and support parents financially (though the latter is accounted for by parents' higher levels of need).

Paper 2 draws on qualitative interviews with 43 first-generation graduates to show myriad ways graduates engage in intergenerational support and characterize their motivations for doing so. Findings focus on the ways graduates negotiate these exchanges in light of added family tension resulting from their upward mobility. For many, upward mobility changes the meaning of support within families so that graduates' attempts to provide mobility-inducing supports (e.g., financial support, professional advice) corrodes family relationships. Graduates thus alter their provisions to ones that are less mobility-enhancing (e.g., emotional support, care work). This trade-off allows them to maintain relationships, which appear most important to them.

Together, these findings suggest that first-generation graduates engage in more support than their continuing-generation peers, but they face a trade-off in the process. Here, the importance of family relationships is clear and explains how family relationships affects how mobility moves through families. On one hand, this may mean that graduates are less likely to provide support that could elevate their family's socioeconomic status. On the other hand, they are able to maintain relationships, which allows them to provide instrumental support that could prevent their family's downward mobility or boost their psychological well-being. By taking the family context into account, we better understand potential mobility flows through families.

Keywords: higher education; first-generation college students; family systems theory; human capital theories; mixed methods research

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Chapter 1

General Introduction

The lives of first-generation college graduates illustrate the role that higher education can play in social mobility because society promises them that their upward educational mobility will positively affect their life outcomes (Baum, Ma, & Payea, 2013; Haskins, Holzer, & Lerman, 2009). Moreover, as students, they often view their own educational attainment as a first step toward both their personal social mobility (Lubrano, 2003) and their ability to support their families of origin (Bui, 2002; Gofen, 2009). The present study makes an original contribution to the literature by exploring first-generation college graduates' family relationships post-college, thus showing how higher education may play a role in the social mobility of whole families. Research like this requires that we expand beyond an individualistic framework in assessing the mobility impacts of higher education.

Theoretical Frameworks

Two theories offer a useful framework for understanding the social mobility of first-generation college graduates and their families: human capital and family systems. First, college can be a process of capital accumulation (Bourdieu, 1986; Bourdieu & Passeron, 1977, 1990; Coleman, 1988). First-generation college students gain human capital in college, which can later be transformed into other forms of capital (Bourdieu & Passeron, 1977, 1990; Coleman, 1988). Specifically, the human capital that first-generation college graduates access through educational attainment may encompass skills (i.e., money management and institutional navigation) or may later transform into economic capital (i.e., earnings and assets); these are both important aspects of their socioeconomic position and may create upward economic mobility for both themselves

and their family members. What is more, because first-generation graduates gain this new educational status, college may change their habitus—their general disposition or lens through which they view the world (Bourdieu, 1986). Previous research shows that their changing habitus separates them from their families in terms of their habits and attitudes, which can feel to students like they are sacrificing their relationships for mobility (E. M. Lee & Kramer, 2013).

Family systems theory (Cox & Paley, 1997; Whichurch & Constantine, 1993) highlights the importance of how changes in one family member may result in changes across the family system, and how individuals are influenced by the family network in which they are embedded. In this theory, the educational attainment of one individual could affect and be affected by the whole family. This is particularly relevant to first-generation college graduates as they may feel a greater desire to offer support because they feel guilty (Covarrubias & Fryberg, 2015) or indebted (Gofen, 2009) to their families. First-generation graduates' immediate families also may be in more need of assistance, as they come from backgrounds that are lower-income than their peers (see Pascarella, Pierson, Wolniak, & Terenzini, 2004; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; Thayer, 2000). This framework attunes us to the way family relationships may be affected when one individual in the family becomes a first-generation college graduate. Gaining a degree means that they are upwardly mobile and will have accumulated resources that both set them apart and enable them to support their natal families.

Bringing together the insights of human capital and family systems theories suggests that one individual's capital, accumulated through upward mobility, could potentially affect others in the family system. They could offer a safety net that prevents downward mobility or facilitates their upward mobility. The graduates' upward mobility is important for understanding the impacts graduates may have across their families; it may enable them to facilitate changes in

attitudes and behaviors in others or cause rifts within their families. In order to fully assess these possibilities, we must consider the family relationships and context.

First-Generation College Graduates and Social Mobility

Research shows that intergenerational mobility in the United States is limited, and it is particularly difficult for children born to low-income parents to rise far up the income ladder (Baum, Ma, et al., 2013; Beller & Hout, 2006; Chetty et al., 2016; Solon, 1992). The parents of many low-income children do not hold college degrees (Bui, 2002; Choy, 2001; Pascarella et al., 2004; Terenzini et al., 1996; Thayer, 2000; Warburton, Nuñez, & Carroll, 2001); for these children, the post-secondary system offers a promise of economic mobility (Haskins et al., 2009; Lubrano, 2003). Without a college degree, low-income young adults are more likely to remain in the same income bracket as their parents; 47% of those from the bottom income quintile who do not earn a high school degree remain in the bottom income quintile whereas only 10% of college degree-holders from low-income backgrounds remain there as adults (Baum, Ma, et al., 2013).

First-generation college students—students whose parents do not already have college degrees—come to college looking to secure a degree so they can cash in on this mobility promise for themselves *and* their families. They are more likely to report going to college to make more money and be “well-off financially” (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007) or to gain “respect/status” (Bui, 2002) than their continuing-generation peers. Research also indicates that first-generation students plan to support their parents and relatives after college (Bui, 2002). Though many adult children feel the need to provide more support as their parents age (Silverstein, Conroy, Wang, Giarrusso, & Bengston, 2002), this appears early for first-generation graduates, potentially because they feel indebted to their families for sacrifices they made to send them to college (Gofen, 2007, 2009). Recent research finds that first-generation students have

higher levels of ‘family achievement guilt’ than their continuing-generation peers. This guilt stems from their having more opportunities than their family members and is eased (in experiments) when first-generation students think about contributing to their family members (Covarrubias & Fryberg, 2015); this indicates the potential importance to them of “working off” their guilt after graduation by supporting their families. These students may continue to fulfill familial roles during college (Hartig & Steigerwald, 2007; London, 1989) or want to use newly accumulated capital to support their families after college. Support could include financial transfers (Bui, 2002), educational encouragement (Gibbons & Woodside, 2014), or other forms, such as help navigating institutions like banks and universities. Although first-generation students desire their own financial security, it is possible that they are willing to sacrifice some of their individual socioeconomic gains in their attempts to support family members. Currently, however, we know very little about first-generation college graduates’ individual and familial experiences after college, so we do not know what trade-offs graduates are making.

Much of the research on first-generation college students focuses on their experiences in college, though there is some research that follows this population after graduation. Earlier quantitative data from the United States suggests that first-generation college graduates are indistinguishable from their continuing-generation counterparts in both occupational status and income (Choy, 2001; Horn & Zahn, 2001; Nunez & Cuccaro-Alamin, 1998). More recent quantitative data contradicts these earlier findings, showing that first-generation college graduates are less wealthy and have lower incomes than their continuing-generation peers (Kent, 2019). It is unclear whether this is driven by changes in the first-generation population or more advanced analytic techniques. Recent qualitative research aligns with the more recent quantitative findings. For example, some first-generation graduates take lower-paying jobs

because they lack knowledge of and access to careers directly related to their college degree and major (Parks-Yancy, 2012). They may also struggle in their careers because they have limited access to professional networks and, without such networks, they seek advice from their less-educated family members who may value immediate pay-offs over long-term career planning (Hirudayaraj, 2014). This research suggests that college may have varying impacts based on students' socioeconomic background, meaning that first-generation graduates may find themselves rising above the socioeconomic status of their own family but not meeting their continuing-generation peers.

In addition to the limited research on the post-college lives of first-generation graduates, there is little research on how the impact of higher education may extend beyond individuals to their families. Though there is a plethora of research on the impacts higher education may have on the children of first-time college-goers (Attewell, Lavin, Domina, & Levey, 2007; Davis-Kean, 2005; Kent, 2019; Monaghan, 2017), questions remain about how first-generation graduates may provide similar transfers to their own parents, siblings, and other kin networks. One study of women in education administration shows that first-generation graduates were more likely to be caring for their parents than their continuing-generation peers (Seay, 2010). Others find that adult children's educational attainment is linked to better health outcomes of parents later in life (Friedman & Mare, 2014); one indicates that an individual's post-secondary degree completion has positive benefits their parents' mental health in later life, and this is particularly influential in first-generation graduate families (Yahirun, Sheehan, & Mossakowski, 2018). Through intergenerational support, such as emotional support, care work, financial transfers, and coresidence (see also Cheng, Birditt, Zarit, & Fingerman, 2015; Swartz, 2009),

graduates may be able to influence the outcomes of other people in their families, beyond their own children.

Because we know little about whether and how first-generation graduates may support their kin, we have few insights into how they could be impacted by providing such support. Previous research indicates that first-generation graduates' personal socioeconomic mobility may be limited by their connection to family; for example, some graduates limit their mobility by prioritizing geographic proximity to their families over career opportunities in making post-college employment choices (Parks-Yancy, 2012). Their provision of care and support to family members may also limit first-generation college graduates' asset accumulation, much like research finds middle- and upper-income black households do to support their under-resourced kin (O'Brien, 2012). The educational background and family ties of first-generation college graduates may continue to impact their lives as they attempt to climb the socioeconomic ladder after college, simultaneously limiting their returns to education while extending its benefits to their family members.

It is also an open question whether first-generation graduates view the provision of support to kin as a burdensome obligation or an opportunity to live up to their values. How do graduates view their personal educational success, the relationships they have with their family, or the support that they have gained from and given to others in their network? Their interpretations matter in our evaluation of the impacts of social mobility. Graduates who engage in support may consider this a willing sacrifice or an unwanted burden, and this interpretation could color how graduates interpret the impacts of these investments in their family. Finally, the relationships within their family may impact graduates' engagement in intergenerational support;

without examining how first-generation graduates feel about these relationships we will not fully understand the context of support or the decision-making process involved in it.

As we can see, there is more work to be done to understand the impact of higher education on first-generation graduates and their families. Despite the importance of family to first-generation college students (Gofen, 2009), previous research has tended to maintain an exclusive focus on the outcomes for individuals. To fill the gaps in the literature, my two-part study will examine the characteristics and meaning of first-generation college graduates' post-college familial relationships and resource exchanges. My focus on the family system highlights the importance of examining alternative outcomes, beyond individuals' income, wealth, and occupational status, to measure the broader social mobility impacts of the higher education experience. We must look at whole families in order to understand how first-generation college graduates' post-secondary educational attainment may impact opportunities for social mobility to their kin or how graduates may be impacted by their kin.

Chapter Outlines

In my two-part study, I focus on how college attainment affects whole families. I do this by examining support exchanges among first-generation college graduates and their families both quantitatively and qualitatively.

In Chapter 2, I use longitudinal quantitative data to explore first-generation college graduates' parental relationships, as compared to their continuing-generation peers. Using a nationally representative dataset, the National Longitudinal Study of Adolescent to Adult Health (Add Health), to compare these two groups helps to tell a story of how education may be related to post-college family relationships and support. By comparing first-generation graduates to their continuing-generation peers—who do not experience upward educational mobility because their

parents already have college degrees—we are afforded the analytic leverage to understand the potential impacts of educational mobility on family relationships. Yet the quantitative data are limited by the narrow range of topics covered in the survey; in this part of the study, I can only learn about whether first-generation graduates feel emotionally close to, live in close proximity to, receive money from, or gift money to their parents. Further, the survey asks about support exchanges with parents, but not with other kin. Given that the familial network is often an important one from which underrepresented students draw support and where they may extend a hand (Yosso, 2005), we would be limited in our understanding of first-generation graduates' experiences without also including other relationships within their immediate family.

In Chapter 3, I draw on qualitative interviews with 43 first-generation college graduates. This allows me to explore the ways in which first-generation college graduates are embedded in their immediate families—how they receive support from and provide support to their families, including the various modes through which they say they provide such support. This complements the quantitative study by giving breadth to our understanding of intergenerational support within these families. It illuminates the mechanisms through which first-generation college graduates influence and support their kin, while also characterizing the motivations for and meaning behind these intergenerational exchanges. I am able to explore the meaning first-generation graduates ascribe to these family investments in order to understand whether they see these gestures as affecting themselves or the well-being of their natal families. The feelings that graduates ascribe to these family investments matter for how family investments are coordinated within families. These qualitative interviews provide explanation and nuance to the patterns of support that we see in quantitative data and a better understanding of how an individual's educational attainment may affect the mobility of others.

The final chapter brings the findings from both chapters together. This discussion sheds light on whether and how higher education may serve as a vehicle for social mobility for individuals and their families and highlights potential areas of future research. This chapter also provides implications of this work for higher education researchers and university administrators.

By examining family relationships of first-generation college graduates in Add Health and asking more in-depth questions of them in interviews, we gain a better understanding of the complex relationships that make up first-generation college graduates' lives post-college. The goal of this research is to understand how the capital first-generation graduates accumulate in college may or may not translate into a socioeconomic status boost for themselves and their families. While the quantitative analysis sets the context by comparing first- and continuing-generation graduates' relationships with their parents, the qualitative work provides a deeper understanding of how these relationships work and the meaning and perceptions that first-generation college graduates ascribe to them. By bringing a family systems theoretical lens (Cox & Paley, 1997; Whichurch & Constantine, 1993) to my study of higher education and social mobility, I make an original contribution to the literature by examining how the impacts of post-secondary education on individuals may also reverberate throughout the family system. My study complicates our understanding of how a college degree creates social mobility by looking beyond individual impacts and examining whole families.

Chapter 2

Closer Parental Relationships: First- Versus Continuing-Generation College Graduates (Paper 1)

Abstract

Little research examines how first-generation college graduates' educational attainment may affect their natal families. To explore these potential effects, this paper compares first- and continuing-generation college graduates' relationships with their parents using the National Longitudinal Study of Adolescent to Adult Health (Add Health) dataset (N = 4,793). Results show that first-generation graduates are just as likely as their continuing-generation peers to feel emotionally close to and receive financial support from their parents; however, first-generation graduates are more likely to live nearer to their parents, after including all controls. Though first-generation graduates are more likely to give financial support to their parents, excluding controls, this is accounted for by their parents' higher levels of need. These findings suggest that first-generation graduates engage in wider-ranging support than their peers which could mean that they use their educational attainment to provide benefits to their kin. What is more, although graduates appear to be upwardly mobile in comparison to their own parents, they have lower incomes, less wealth, and fewer post-graduate degrees than their continuing-generation peers. Already disadvantaged, these familial relationships could be a further drain on first-generation graduates' resources. Alternatively, their familial relationships could be key resources from which they draw instrumental or emotional support. Using a family systems perspective, this research reorients our approach to understanding the impacts of post-secondary education, encouraging us to see beyond individual outcomes to examine the family system surrounding these graduates.

Keywords: higher education; first-generation college students; post-college outcomes; parents; family systems theory; emerging adulthood; young adulthood; quantitative research

Introduction

First-generation college graduates are exemplars of educational mobility. After growing up in families without college degrees held by their parents, they attain one themselves. Having this college diploma is associated with many benefits. Ample research shows that college graduates tend to have lower levels of unemployment, higher incomes, more stable marriages, and better health outcomes than those without degrees (Baum, Kurose, & Ma, 2013). Yet our understanding of these benefits is limited because the literature exploring post-college outcomes largely considers all college graduates to be the same, despite important heterogeneity in college graduates' life circumstances. First-generation college graduates, as an example, are upwardly mobile, at least in terms of educational attainment, while continuing-generation graduates share their parents' education level. This chapter examines this group's upward educational mobility using family systems theory, which suggests that a change in one family member may reverberate throughout the family (Cox & Paley, 1997). Thus, by gaining a college degree, the relationships that first-generation graduates have with other members of their families may change, thereby potentially affecting the outcomes of these other members in addition to their own.

This paper investigates first-generation college graduates' relationships with their parents, specifically, in comparison to their continuing-generation peers. Understanding these parental relationships is important because they are central to families (Seltzer & Bianchi, 2013) and they have the potential to affect the graduate as well as the larger family system. For example, these parental relationships may mitigate the effects of a first-generation graduate's college degree; a first-generation graduate's family's higher level of need (Baum, Ma, et al., 2013; Douglas-Hall & Chau, 2007) may mean that graduates invest more time or resources in

parents' outcomes instead of their own. Second, these parental relationships could be pathways through which whole families gain the benefits of the graduate's educational attainment; as first-generation graduates accumulate human, social, and cultural capital themselves (Bourdieu, 1986; E. M. Lee & Kramer, 2013), they may pass their new knowledge and resources on to other members of their families. Indeed, many first-generation college students have goals of supporting their parents and other family members with their degrees (Bui, 2002; Gibbons & Woodside, 2014; Gofen, 2009), which is something that distinguishes them from their continuing-generation peers. Alternatively, graduates' families could be providing support to them; in this scenario, their support may further boost graduates' success and give additive benefits to their degrees (see, for example, K. Fingerman, Miller, Birditt, & Zarit, 2009). Of course, all of these could happen at the same time.

Despite the need for understanding this intergenerational support in first-generation college families, researchers have not yet examined this aspect of the first-generation experience. In this paper, I use the National Longitudinal Study of Adolescent to Adult Health (Add Health) to explore four characteristics of the relationship between college graduates and their mothers and fathers (assessed separately): emotional closeness, residential proximity, financial support from parents to graduates, and financial support from graduates to their parents. By comparing these four aspects of first- and continuing-generation college graduates' relationships with their parents, we can more accurately understand the post-college lives of first-generation graduates and the potential pathways through which they engage in intergenerational support. Moreover, this analysis better highlights some pathways through which educational mobility may affect whole families—with the consequence of children's educational mobility rippling through the

family network, and thus how higher education may have far-ranging impacts on society as a whole.

First-Generation College Graduates, Social Mobility, and Their Families

Prior to college, first-generation college students (e.g., students who do not have a parent holding a bachelor's degree) and continuing-generation students (e.g., students who have at least one college-educated parent; Sharpe, 2017; Toulkoushian, Stollberg, & Slaton, 2015) differ in their connections to their family and motivations for college. First-generation students focus on the transformative power of a college degree, for both themselves and their parents. In surveys, they tend to be more likely than continuing-generation students to report going to financial stability and status (Bui, 2002; Saenz et al., 2007), to gain “respect/status” (Bui, 2002). As reviewed in the introduction chapter, there is less research on the individual effects of higher education on first-generation graduates than we would like. What does exist is mixed, showing that graduates may benefit from higher education but be held back by their backgrounds (Hirudayaraj, 2014; Kent, 2019; Parks-Yancy, 2012).

What makes first-generation college graduates unique is their desire to use their higher socioeconomic status to support other family members after college (Bui, 2002; Gibbons & Woodside, 2014). First-generation college students' desire to support family may stem from knowing that their families have lower incomes and assets than their peers' families; typically, first-generation college graduates come from backgrounds that are more likely to be lower-income (Engle & Tinto, 2008). Despite their families often being less able to support them financially or through their navigation of the college experience (Hamilton, Roksa, & Nielsen, 2018), research shows that many families make sacrifices to get their children to college by supporting them in other ways (e.g., emotionally; Dennis, Phinney, and Chuateco 2005; Gofen

2009; Kiyama et al. 2015). Because of this, first-generation students' motivation to assist their families may come from a feeling of indebtedness to their families for those sacrifices (Gofen, 2009). Covarrubias' and Fryberg's (2015) research on 'family achievement guilt' points to potential for them to feel like they must "work off" their guilt after graduation—feeling that they had more opportunities for success than other family members may induce guilt in them that can only be quelled by these family investments. Moreover, giving to others boosts personal happiness (E. W. Dunn, Aknin, & Norton, 2008), so these investments could further produce a sense of satisfaction in graduates. Given their upward mobility and inclination to support others, these post-college relationships must be explored if we want to know how education affects individuals, their families, and by extension, society.

Few studies examine the effects of individuals' educational attainment on their natal and extended family members. Therefore, how the educational attainment of first-generation graduates may provide benefits to their own parents, siblings, and other family is not well known. By engaging in intergenerational support of their natal families, through their emotional closeness, residential proximity, or financial support, first-generation college graduates' may be limited in their asset accumulation, which research has identified happens in middle- and upper-income Black households as a result of their supporting others with fewer resources (O'Brien, 2012). Yet first-generation college graduates may also receive support from these relationships in the form of financial assets, kin care (e.g., child care), or psychological well-being, so it may be that these benefits are reciprocal.

Given their familial motivations for college attendance and their subsequent upward educational mobility, there is reason to believe that first-generation graduates' relationships with their parents are different from those of their continuing-generation peers. In terms of first-

generation graduates' emotional closeness to parents, previous research points to competing expectations in this realm. On one hand, first-generation graduates may potentially feel closer to their parents than their continuing-generation graduate peers because of their greater feelings of indebtedness (Covarrubias & Fryberg, 2015; Gofen, 2009). They also may feel closer to their families of origin if they experience social isolation while in college (Lehmann, 2007; Reay et al., 2010). On the other hand, first-generation college graduates' different education status from their parents—and resulting changes in their knowledge, skills, attitudes, and habits, or 'habitus' (Bourdieu, 1986; E. M. Lee & Kramer, 2013)—may mean that they feel less close to their parents because they do not share their social class and habitus with their parents as continuing-generation graduates would. This closeness is an essential part of relationships, having the potential to determine other forms of support and connections to other family. If the emotional closeness that graduates feel to their parents is different between first- and continuing-generation graduates, we will better understand how educational attainment may affect family dynamics. This could influence other forms of financial and nonfinancial support as a result.

In terms of residential proximity, we may expect that first-generation college graduates live closer to their parents because of their parents' financial need or graduates' feelings of debt to them, wanting to “give back” to their parents (Bui, 2002; Covarrubias & Fryberg, 2015). Indeed, in a qualitative study, Parks-Yancy (2012) finds that first-generation graduates decide to live near their parents despite fewer job prospects in these areas. Living close to parents may also benefit first-generation college graduates themselves if they have children, as living close to parents means they could receive help with child care; on average, first-generation students and graduates have more dependent children than continuing-generation college students (Engle & Tinto, 2008; Seay, 2010). Therefore, may be more necessary for first-generation graduates. Since

residential proximity is related to these nonfinancial supports (Seltzer & Bianchi, 2013), first-generation graduates who live closer to their parents may engage in beneficial relationships where they give support to or receive support from them.

In terms of financial support, we would expect first-generation college graduates to be less likely to receive money from their parents than their continuing-generation peers given their families' likely higher levels of need (Engle & Tinto, 2008). Indeed, they receive less financial support before and during college (Engle & Tinto, 2008; London, 1989; Saenz et al., 2007). For the same reason, we would expect first-generation graduates to be more likely to provide financial support to their parents than continuing-generation college graduates. Indeed, some low-income and first-generation students give money to their parents and other family members out of their paychecks, grants, and loans during college (Goldrick-Rab, 2016). Furthermore, because a high proportion of first-generation students come from minority or low-income backgrounds (Engle & Tinto, 2008) and small towns or rural communities (Warburton et al., 2001), and these populations often engage in more kin and financial support than their peers (Kim, Kim, & DeVaney, 2012; Limb, Shafer, & Sandoval, 2014; Seltzer & Bianchi, 2013; Taylor, Budescu, Gebre, & Hodzic, 2014), we would expect first-generation graduates to give financial support to their parents at higher levels. By examining graduates' financial support from and to their parents, we better understand how financial support may boost, mitigate, or share the economic benefits of the first-generation graduate's upward educational mobility.

Given that first-generation college graduates are a special case of upward mobility—these graduates have attained a level of education, and the associated human, social, and cultural capital (Bourdieu, 1986; Coleman, 1988; Yosso, 2005) beyond that of their parents—we may expect this educational change to play a role in their relationships with their parents (Cox &

Paley, 1997), but we do not yet know how. First- and continuing-generation graduates provide the analytic leverage to understand how parental relationships and intergenerational support works in the context of this upward educational mobility. Differences between first-generation graduates and their continuing-generation peers indicate the potential pathways through which one graduate's educational attainment may affect their parental relationships, which have the potential to affect their individual outcomes, their parents' and families' outcomes or, by extension, society as a whole.

Methods

Survey and Participants

This analysis used data drawn from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a nationally representative sample of adolescents—initially in grades 7-12 in the 1994-1995 school year—followed over four waves. Data were collected using a stratified random sample of high schools in the United States on the individual, family, and school levels. I used the in-home interview sample, which included 20,745 adolescents in Wave 1 (RR = 79%); 14,738 in Wave 2 (RR = 89%), collected one year later; 15,197 respondents (RR = 77%) in Wave 3, collected in 2001-2002; and 15,701 participants (RR = 80%) in Wave 4, collected in 2007-2008. By Wave 4, respondents were 24-34 years old. At Wave 1, parents also completed a questionnaire. The various survey instruments collected data on family background (e.g., parent income and educational attainment; Waves 1-2), measures of participant life (e.g., educational attainment, employment, income, parental status; Waves 3-4), participants' emotional closeness to parents, residential proximity to parents, and financial support from parents to participants and from participants to their parents (Wave 4). The data include oversamples of Asian and Hispanic/Latino students and of African American students with

college-educated parents (Harris et al., 2009).

At Wave 4, the Add Health subsample of college graduates (N = 4,793) included 2,931 continuing-generation college graduates, 1,203 graduates whose parents never attended college, and 659 graduates whose parents attended college but did not attain a bachelor's degree.

Respondents whose parents had some college experience or never attended college were classified as first-generation, as universities have typically classified students this way (Sharpe, 2017; Toulkoushian et al., 2015). I focused on graduates because they exemplify a “best-case scenario” of educational achievement—these were individuals for whom college should be most likely to deliver on its implied promise of human capital accumulation and upward mobility. I excluded respondents who never attended or did not graduate from college.

First-Generation College Graduate Status

The independent variable, *first- versus continuing-generation college graduate status*, was based on graduates' self-identified parental figures' educational attainment at Wave 1 or 2.¹ Graduates who reported on the same mother figure in Waves 1, 2, and 4 comprised the analytic sample for models examining participants' relationships with their mothers; those who had the same father figure across waves comprised the sample for father models.² I chose to focus on the parental figures that respondents selected at Wave 4, rather than residential parents at Wave 1, because these are the parents that graduates felt raised them and thus they have likely been most

¹ Most college graduates identified these figures as their biological mothers (95%) and fathers (84%), though others identified adoptive parents, grandparents, aunts/uncles, sisters/brothers, other relatives, and nonrelatives (Appendix Table 1).

² At least 92% have the same mother figure across waves and at least 75% have the same father figure across waves, meaning that most participants reported on the same parents in Wave 1, 2, and 4; graduates with at least one parental figure comprised the analytic sample.

important in their lives over time. Using the parent that the graduate identified as having the most influence on them likely estimated parental relationships most accurately.

Dependent Variables

Dependent variables were drawn from the Wave 4 in-home survey. Participants reported on four characteristics of their relationships with their mother and father figure, separately. *Emotional closeness* measured how close respondents felt to each of their parents on a 5-point scale from “not close at all” to “extremely close.” *Residential proximity* measured how close participants lived to each of their parents, coded into five categories: “live together,” “1-10 miles,” “11-50 miles,” “50-200 miles,” and “more than 200 miles.” Participants reported on *financial support from parents*, whether their parental figures had paid their living expenses or given them \$50 or more to pay for living expenses in the last year. Participants also reported whether they gave the same type of *financial support to parents*. These were coded as “never” or “at least once” (Harris, 2009).

Control Variables

Individual characteristics. A first set of control variables included individual characteristics (i.e., age, sex, race/ethnicity) that have been associated with post-college outcomes and family relationships (Baum, Kurose, et al., 2013; Seltzer & Bianchi, 2013). *Age* was calculated from graduates’ birth month and year and the month and year of their Wave 4 interview. *Sex* was dummy coded (female = 1). *Race/ethnicity* was coded as series of mutually exclusive dummy variables for *White*, *African American or Black*, *Hispanic or Latino*, *Asian*, and *other*; *Hispanic or Latino* included all people who identified as Hispanic or Latino, regardless of race. *Other* included Native American or American Indian, those who identify as more than one race (but not Hispanic or Latino), and those who marked “other.”

Family background in adolescence. A second set of controls included variables related to family background in adolescence (i.e., parent household income, household composition, rural/urban area; Wave 1) that have been related to educational outcomes and family relationships (Clark & Kenney, 2010; Pascarella et al., 2004; Seltzer & Bianchi, 2013). *Parent total household income* included the U.S. dollar income of everyone in the household, including wages, welfare benefits, dividends, and other sources. In analyses, the log of total household income was used. Parents also reported whether they had enough money to pay their bills, those who reported “no” were considered in *financial strain* (dummy coded as strained = 1). I created a dummy coded variable indicating the respondent’s *household composition* in adolescence; two-parent households were coded as 1, meaning that individuals lived with both their biological or adoptive mother and father at Wave 1 whereas all other household compositions (e.g., single or re-partnered parents) were coded as 0. I also used a variable for whether participants lived in an urban or rural area in adolescence. This measured a participant’s census tract on a continuous scale from 0% to 100% rural (Bureau of the Census, 1992).

Post-college life circumstances. A third set of control variables included graduates’ post-college life circumstances (i.e., personal income, household composition, educational attainment; Wave 4), which have been associated with family relationships (Seltzer & Bianchi, 2013). For survey questions in which they were asked about their “household,” participants were asked to consider those who “contribute to the household budget.”³ Participants reported their

³ About 11% of those surveyed at Wave 4 (13% of continuing-generation graduates and 9% of first-generation graduates) lived with “nonrelatives” (e.g., someone who does not fit into a specific family member category), which may function as a proxy having roommates. Because the survey question asked participants to consider those who “contribute to the household budget,” and roommates are not typically considered part of household formation for young adults (Jekielek & Brown, 2005), I do not expect the income of these nonrelative household members to be captured in the results.

total personal income in U.S. dollars; for analysis I used the log of total personal income.

Participants also provided a general estimate of their household wealth by indicating whether, if they were to sell all their major possessions and pay off all their debts, they would *break even*, *be in debt*, or *have something left over* (break even was the reference category). Individuals identified any *post-college education* they had by Wave 4 and that was coded into four categories: *no post-baccalaureate experience*, *some graduate school experience*, *master's degree*, and *professional (e.g., law school, medical school) or doctoral degree*. Participants also reported if they were *currently enrolled in school* (dummy coded with currently enrolled = 1).

Using Wave 4 household roster data, participants were dummy coded as *living with a spouse* or *living with a romantic partner* (living unpartnered was the reference category).

Participants were also dummy coded as *living with mother* or not, which is used as a control for analyses predicting mother-related dependent variables, and *living with father* or not, used in father-related analyses. Participants were also dummy coded as *living with children* (including any of their own children: biological, foster, step, or adopted) or not. These household variables were not mutually exclusive (e.g., one could be living with a spouse and a parent).

Additional controls. In models for residential proximity, I included *neighborhood in adolescence* as a proxy for parents' current neighborhood characteristics, which assumed parents would likely have stayed in their residence or a similar one to where graduates were raised (South, Huang, Spring, & Crowder, 2016). I used the information from participants' census, block, or county-level tract identified at their Wave 1 interview (Billy, Wenzlow, & Grady, 1998) to control for *percent in poverty* ($\mu=12\%$, $SD=11$) and *percent over age 25 with a Bachelor's degree* ($\mu=27\%$, $SD=15$) for the reporting area from the 1990 census (Bureau of the Census, 1992). In models for emotional closeness, I also controlled for their *emotional closeness*

to parents in adolescence, reported on the same 5-point scale as the dependent variable. I dummy coded high closeness (four of five on the 5-point scale) as 1 and others as 0 because almost all participants felt close to their parents in adolescence (90% and 80% reported four or five for mothers and fathers, respectively). Using prior closeness adjusted models so that associations between first-generation status and parent relationships account for prior emotional closeness and allow for the discernment of whether these parental relationships might have changed during or after college (Allison, 1990).

Analyses

To examine the differences between first- and continuing-generation college graduates, I used Ordinal Logistic Regression in Stata 15 (StataCorp, 2017). Each set of models tested a different parental relationship characteristic: emotional closeness, residential proximity, financial support from parents, and financial support to parents. I test relationships with mothers and fathers separately. Model 1 used continuing-generation college graduates as the reference category and compared first-generation college graduates to them. I then entered each set of measures separately to see if they accounted for any of the differences observed between the first- and continuing-generation groups. Model 2 controlled for individual characteristics (i.e., gender, age, and race/ethnicity). Model 3 controlled for family background in adolescence (i.e., parent total household income, financial strain, household composition, rural area). Model 4 controlled for participants' post-college life circumstances (i.e., personal income, household wealth, post-graduate educational attainment, current educational enrollment, and co-residence). Model 4 did not include co-residence with parents as a control since the residential proximity included "living together" as the closest outcome variable. In models for emotional closeness to parents, Model 5 included emotional closeness to parents in adolescence. In models for

residential proximity, Model 5 included the controls for neighborhood characteristics in adolescence. Final models included all controls. I reported odds ratios. All analyses were weighted to account for survey design. I used multiple imputation using the chained equations method to maintain maximum sample size for missing data on control variables, which works well with categorical and binary variables (White et al., 2011).

Results

Descriptive Statistics

As Table 1 shows, first- and continuing-generation graduates were significantly different on almost all measures. The group of first-generation college graduates was 63% female; 54% were White, 17% African American or Black, 18% Hispanic or Latino, 7% Asian, and 4% other. The continuing-generation graduates were 57% female; 62% were White, 17% African American or Black, 6% Hispanic or Latino, 10% Asian, and 5% other.⁴ Participants ranged in age from 24 to 34 ($\mu_{\text{age}}=28$). Compared to their continuing-generation peers, first-generation college graduates were from households that reported significantly lower average household incomes (\$43,385 vs. \$76,851), were more likely to report financial strain (16% vs. 9%), and were more likely to be headed by single mothers (19% vs. 12%). They also grew up in higher percentage rural areas (24% vs. 22%). In Wave 4, first-generation graduates had significantly lower average personal incomes (\$43,867 vs. \$49,039) and were significantly less likely to have assets (61% vs. 68%). They were also more likely to be co-residing with a spouse (47% vs. 41%) and children (36% vs. 25%). The two groups were equally likely to be cohabiting with romantic partners or living with their mothers or fathers. First-generation graduates were significantly less

⁴ We likely see similar rates of African Americans in the two groups because Add Health researchers oversampled African American students with at least one college-educated parent.

likely to have post-graduate degrees (20% vs. 27%) but were equally likely to be enrolled in school.

[TABLE 1 ABOUT HERE]

Relationships with Parents

Results indicated that first-generation graduates were no more likely to feel emotionally close to their mothers (OR = 1.13) or fathers (OR = 1.03) than continuing-generation graduates, after including all controls (Tables 2 and 3). First-generation graduates had significantly higher odds of living nearer to their mothers (OR = 1.34) and fathers (OR = 1.41) than their continuing-generation peers, after including all controls (Tables 4 and 5). First-generation college graduates were just as likely to have received money from their mothers (OR = 1.00) and fathers (OR = 1.10) in the last year as their continuing-generation peers, after including all controls (Tables 6 and 7). First-generation graduates were not significantly different from their continuing-generation peers in giving money to mothers (OR = 1.27) or fathers (OR = 1.31) in the final model. However, results from other models in this analysis suggest that their family's financial circumstances when they were growing up may account for the differences between first- and continuing-generation graduates; first-generation graduates were two times more likely to give money to their mothers (OR = 2.05) and fathers (OR = 2.00) than their continuing-generation peers in the baseline models but these differences were accounted for in Model 3 and the final models, both of which account for family financial background (Tables 8 and 9).^{5 6}

⁵ Tables 2-9 are abbreviated for submission to publication outlets; full outputs for each regression are available in Appendix Tables 2-9.

⁶ As a robustness check, I ran analyses separately by type of first-generation college graduate group (Sharpe, 2017; Toulkoushian et al., 2015), distinguishing between those whose parents never attended and those whose parents attended but did not graduate from college. These tests produced a similar pattern of results (results not shown). I also ran all analyses without multiple imputation and the results were similar (results not shown).

[TABLES 2-9 ABOUT HERE]

Discussion

Overall, first-generation college graduates' post-college relationships with their parents differ from those of their continuing-generation peers, even after accounting for other personal and familial characteristics. Continuing-generation graduates seem to engage in more independent family relationships: they have high levels of closeness to their parents, but they are less likely to live near or give money to their parents. Alternatively, first-generation graduates feel similarly close to their parents, but they engage in more intergenerational support, living closer to their parents and providing them more financially, particularly when coming from low-income backgrounds. Given that previous research has highlighted first-generation college students' goals to support their family members (Bui, 2002; Gibbons & Woodside, 2014; Gofen, 2009), these findings show that they are potentially able achieve these goals, at least in living nearer to their parents. From a family systems perspective (Cox & Paley, 1997), there is potential that the educational status change of first-generation college graduates—and the associated capital they accumulate in the process—may further result in changes across the family network through this parental pathway. Given that typical education and social mobility literature has limited itself to analyzing these individual outcomes, this is a novel understanding of post-graduate life.

Before delving into these family relationships, we should first discuss post-college lives of graduates individually. There is some evidence of upward mobility for first-generation graduates, economically, in addition to their educational mobility; in the sample, first-generation graduates have an average *personal income* at Wave 4 that is just slightly higher than their parents' average *household income* at Wave 1. At the same time, there is still not parity between

first- and continuing-generation college graduates' post-college outcomes. In this national sample of young adults, first-generation college graduates have lower income, more debt, and fewer post-graduate degrees than their peers. In addition, first-generation graduates are more likely to be married and have children than their peers which means they have more familial responsibilities outside of their natal families. There is limited research comparing first- and continuing-generation college graduate economic and occupational outcomes, and what does exist is mixed—some research shows that graduates from disadvantaged backgrounds do just as well as other graduates (Choy, 2002; Horn & Zahn, 2001) and other research does not (Chetty, Friedman, Saez, Turner, & Yagan, 2017). My findings point out key differences across graduates post-college, suggesting that higher education does not equalize outcomes between these two groups and that first-generation graduates they may be more disadvantaged after college. Considering these differences, research should more thoroughly investigate the gradient of benefits that college may confer to students of differing family backgrounds.

Turning to family relationships, the similarities between first- and continuing-generation graduates are striking. First-generation college graduates seem similar to their continuing-generation peers in terms of emotional support—even after accounting for all controls, including prior emotional closeness—which suggests that the college experience does not alter relationships between parents and children. On one hand, considering college is a potentially transformative experience for first-generation college graduates (Bourdieu, 1986), to which these less advantaged parents describe themselves as “outsiders” (Hamilton et al., 2018) it seems surprising that they are not more distant from their parents than continuing-generation graduates now that they have surpassed them educationally. On the other hand, considering that first-generation graduates have a keen awareness of family needs and closeness to them throughout

college (Covarrubias & Fryberg, 2015; Gofen, 2009; Hartig & Steigerwald, 2007; London, 1989), it is also surprising that they are not closer to their parents than their continuing-generation peers. Their similarity suggests that college does not push graduates away or bring graduates closer to their families—at least not in the aggregate. For any graduate—first- or continuing-generation—being close to parents could mean there is more communication and awareness of each other’s needs, this could mean that graduates are more in tune with their parents’ needs and vice versa. If both parties could be more readily able to provide support when needed, closeness may relate to graduates’ ability to provide mobility-enhancing supports. One limitation here is the bluntness of the measure; because the measure only asks participants to rate their “closeness” without defining what that means, it is unclear whether closeness looks the same across college graduates.

That first- and continuing-generation graduates are just as likely to receive money from their parents is also notable. This finding seems counterintuitive when we consider how college graduation for first-generation students could mean they are in a better financial position than their parents (e.g., higher income, more stable employment, and so forth; Baum et al., 2013), and indeed, that upward mobility exists in this sample. Although previous research identifies parent-to-adult child transfers as a regular occurrences in families, studies have also shown that lower-income and financially strained families are less likely to make these kinds of direct transfers and are more likely to support each other through emotional or kinship support (Seltzer & Bianchi, 2013). This finding could be indicative of college graduates’ post-college needs, regardless of generation status, due to the rising cost of college (Goldrick-Rab, 2016; Houle, 2013; Rose, 2013)—almost a quarter of all graduates are in debt in this sample. Nationally the number is well above that, with half of graduates having at least some college debt (Board of Governors of the

Federal Reserve System, 2016). In this way, parents may be providing the mobility-inducing supports to their graduates; supporting them financially means graduates could pay off their debt more quickly and accumulate wealth. Here, too, limitations in the measure could mask variation across the sample. For example, parents giving \$50 or \$10,000 would both be coded as giving financial support—this is substantively different in terms of mobility outcomes for individuals and families.

These trends could also suggest that there are different factors that motivate giving in first- versus continuing-generation families. For example, looking at the financial position of parents versus adult children, these indications of slight upward economic mobility for first-generation graduates correspond to much lower income among continuing-generation graduates when compared to their own parents (continuing-generation graduates have personal incomes in Wave 4 that are almost \$30,000 lower than their parents' household incomes in Wave 1). Parents of continuing-generation graduates may be compensating for their young adults' lower socioeconomic status by giving money to them during this likely temporary time of lower income (e.g., given the age of the graduates at Wave 4 and their post-graduate degrees, their income will likely increase over time through career advancements or circumstances like marriage; Baum, Ma, et al., 2013). In this way, parents could be supporting their adult children while they are in need of it, as is typical now-a-days (see also Ameritrade, 2017). In contrast, parents of first-generation graduates may be extending themselves to support their first-generation college graduates as “success stories” despite the potential burden placed on them to do so (see also Fingerman et al., 2009). Helping their first-generation college graduate could be beneficial for both parents and children—parents may gain socioemotional benefits from giving money to their children (Dunn et al., 2008) while graduates get the additive mobility benefits of

continued support in addition to their college degree. Yet without qualitative research investigating these parental motivations, we cannot be sure of their decision-making process or the meaning behind these exchanges.

First-generation graduates' closer residential proximity to parents falls in line with previous research suggesting that first-generation college students are more likely to remain at home during college or attend colleges closer to their natal home (Pascarella et al., 2004; Saenz et al., 2007). Some may argue that the reason for their closer proximity to their parents is because they have more needs than continuing-generation graduates, so this proximity derives from necessity. However, the percentage of college graduates who live *with* their mothers or fathers is not all that different between first- and continuing-generation graduates (13% vs. 11% live with mothers; and 10% vs. 8% live with fathers). Instead, the data show that first-generation college graduates live close to, but apart from their parents. This is substantively different—living near parents means neither the parent nor the graduate is providing financial support in the form of housing. Yet being physically closer could mean that family members have more access to each other's time and can more easily engage in emotional support, or kin support or care work, such as child care or work around the house (Schoeni & Ross, 2005; Seay, 2010). Through these pathways, first-generation graduates may provide support to their parents, receive support from their parents, or both. Such supports free up money and resources to be used in other ways that may benefit mobility.

The results from this study also indicate that first-generation college graduates are more likely to financially support their parents, though this does not stand after accounting for their parents' higher levels of need. About 31% of first-generation graduates report giving to their mothers in the last year (26% have given to fathers). At almost a third, this is a substantial

population of first-generation graduates (Appendix Table 10; in contrast, only 17% of continuing-generation graduates reported giving to their mother and 9% reported giving to their fathers). Given the national averages, this proportion is also high—19% of Millennials and 13% of Gen Xers support their parents nationwide (Ameritrade, 2017). Providing such financial support may have potential effects on their own mobility outcomes, including their ability to build wealth—by giving money to parents they may divert their savings or retirement—or they may be helping to keep their parents afloat financially. Given that fewer first-generation students come from backgrounds that have high earnings, in this sample and more generally (Saenz et al., 2007), it may be that their parents need more support. These parents may have never been in a position to save or build wealth. Or they may have financially supported their children to and through college at the expense of their own long-term wealth-building, banking on the idea that their children would return the favor after college. Now that their children have launched into their own lives post-college, there is more that the adult children could give. Supports like these, from parents to children and children to parents, could stave off downward mobility.

It appears that these graduates who come from more disadvantaged backgrounds are the ones who give this kind of support to their parents. Since receiving financial support from parents is not strongly correlated with giving financial support to parents (Appendix Table 11), it seems that different first-generation college graduates are giving money to than receiving money from their parents. Models for financial support of parents show that coming from a household that experienced financial strain is a significant predictor of graduates reporting monetary gifts to parents; this means that first-generation graduates who experienced financial strain growing up are more likely to support their families financially in adulthood. Other graduates from more advantaged backgrounds may receive money from parents as they exit college and enter the

workforce while these graduates reach into their own pockets instead. The exception here may be African American and Asian American graduates, since being from these groups predicts both receiving financial support from and providing financial support to parents—in these families, money may flow back and forth more readily, which falls in line with previous literature showing that these groups may engage in support more reciprocally than others (Y.-J. Lee & Isik, 1998; Taylor et al., 2014). In terms of mobility, findings here suggest that those already disadvantaged may be in the most likely position to provide to others, meaning they could accumulate disadvantage after college by supporting parents and other family members.

This study contributes to the education and social mobility literatures in two main ways. First, the findings point to different outcomes between types of graduates. Studies focusing on the effects of post-secondary education typically consider higher education a homogenizing force, meaning that first- and continuing-generation graduates are considered the same despite differences in their family background prior to and during college. We often do not see educational effects broken out by educational background, instead education is a panacea of positive effects for all. Evidence here points to important heterogeneity in not only individual outcomes but also in family relationships post-college. Together, these could have lasting impacts on individuals and families.

Second, by using a family systems approach and placing educational attainment in the context of their family, we see that first-generation college graduates could have the opportunity to extend the benefits of their educational attainment to others in their network. As first-generation graduates have more closely joined relationships with their parents and engage in more intergenerational support, as compared to their continuing-generation counterparts, there is more potential for their individual attainments to ripple through their families. In addition, there

is also more potential for the effects of education to be dampened by these familial relationships. This could be a story of cumulative disadvantage—since it appears that some first-generation graduates have worse outcomes after college and more needy families. Yet we do not know the meaning of these interactions, it could be that graduates do not view their relationships as a drain on their resources but a fulfillment of their promise to support their families once they attain their degrees. Chapter 3 of this dissertation grapples with this issue by examining the motivations for and meaning of support within families.

Limitations

There are several limitations to this study that may caution the interpretation of these results. First, this study is limited in identifying causality; the relationship between these variables may not be due to first-generation college status per se, the significance of other predictors is important here. Second, in terms of the dependent variables, as I have already noted, the data are limited in how researchers measured emotional closeness as it may mask differences between groups. In measuring financial support, the researchers asked for a limited number of times that participants received money from or transferred money to their parents—none, one or two times, three or four times, or unknown number of times—this unknown number of times could vary widely. Moreover, the amount of the transfer is not specified; the survey asked about all transfers of \$50 or more. Therefore, while the likelihood of receiving financial support from and giving financial support parents is similar across first- and continuing-generation graduates, it could still vary substantially in ways that were not measured. In terms of residential proximity, graduates' definitions of physical closeness may not map on to the categories here; a 50-mile commute may be short to some and long to others. Further, the survey does not distinguish between participants who, in adulthood, live with parents in their parents' homes, live with their

parents in their own homes, or those who have decided to reside with their parents as equals. It is possible that this varies between first- and continuing-generation graduates in important ways; for example, the latter may be more likely to live with their parents while the former could be more likely to have their parents live with them (without this information, these groups look the same).

Another major limitation to the data has to do with how it measures the college experience. Add Health lacks information about college; we know that experiences in college can vary widely (Mayhew et al., 2016), but the data limits my ability to control for that experience. It is possible that the college experiences of first-generation students are systematically different from those of their continuing-generation counterparts in ways that may relate to their post-college parental relationships. The data do not allow me to separate first-generation graduates who were the first or only person in their families to go to college from those who had other relatives (e.g., siblings, aunts/uncles) go to college before them. There is, also, other variation within the first-generation college sample, but they are considered homogeneous here. I account for this limitation by using extensive controls related to college experiences and outcomes, but further exploration of variation within the first-generation population would be beneficial for better understanding post-college experiences.

Finally, missing data is an issue when using longitudinal data in spite of the high response rate of this survey. I account for this limitation by using multiple imputation, which seeks to limit the problem but does not solve it. I also ran models without multiple imputation and found that the results were relatively robust (results not shown).

Conclusion

This study contributes to the education and social mobility literatures by using a family

systems approach—one in which we place the college graduate in the context of their family. By considering the family system, or at least their parents, we see that first-generation college graduates engage in more intergenerational support, as compared to their continuing-generation counterparts. They engage in this support despite their gaining fewer advantages from college than their continuing-generation peers (e.g., lower income, more debt, fewer post-graduate degrees). Though this analysis is limited in identifying causality, recognizing this variation between first- and continuing-generation graduates' outcomes and their parental relationship characteristics is a critical first step toward understanding whether and how these relationships may play a role in the experience of educational attainment and personal and familial socioeconomic mobility. It is possible that the relationships between first-generation graduates and their parents may positively or negatively contribute to individual mobility, the mobility of their parents, or both.

The results here highlight a need to further understand post-college life, both to better understand the impact of higher education on first-generation individuals and the ways in which these individuals may, in turn, support their family members. Additionally, research should examine the potential effects of this kind of support on first-generation graduates and their families, both financially and emotionally. This means we should examine how first-generation college graduates interpret these family relationships. For example, they may live nearer to or financially support their parents because of guilt or indebtedness to them for their support to and through college (Covarrubias & Fryberg, 2015; Gofen, 2009) or because it gives them a sense of satisfaction. First-generation college graduates' closeness to their families may be a necessity, an obligation, a choice, or a gift, and their interpretations of their family engagement should guide our assessment of it in the future.

Despite the need for understanding these effects across families, previous research on the post-college outcomes of students has tended to maintain an exclusive focus on the outcomes for individuals or, at most, their children; this ignores the role of parents. This family-focused approach reorients our analysis to see the potentially broad implications of individuals' educational attainment. My analysis on the characteristics of relationships between adult college graduates and their parents highlights the importance of examining alternative outcomes in education and mobility research, beyond individuals' income and occupational status, to capture the broader social mobility impacts of higher education. By failing to look at whole families, we may underestimate the mobility consequences that college graduation could create for the family members of first-generation graduates. Likewise, by failing to look at whole families, we also miss how family ties and obligations may support or hold back graduates in their social mobility after graduation.

Required Statement for publications based on analysis of Sensitive Data from Add Health:

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Chapter 2 Tables

Table 1. Demographics of Add Health college graduates by first-generation college status (N=4,793)

	Parent Education				
	First-generation graduates (N=1,862)		Continuing-generation graduates (N=2,931)		Missing
	N	% ^a	N	% ^a	N (%)
Age	Mean =	28.53 ^b	Mean =	28.34	0
Sex					0
Male	696 ^b	37%	1,247	43%	
Female	1,166 ^b	63%	1,684	57%	
Race/Ethnicity					2(<1%)
White	1,007 ^{1c}	54%	1,815	62%	
African American	314 ^c	17%	496	17%	
Hispanic/Latino	343 ^c	18%	185	6%	
Asian	127 ^c	7%	282	10%	
Other (Native American, multiracial, other)	76 ^c	4%	152	5%	
Parent Household Income '94	Mean =	\$44,385 ^b	Mean =	\$76,851	1075(22%)
Parent Financial Strain (W1)	251 ^b	16%	229	9%	703(15%)
Rural Area Proportion (W1)	Mean=	24% ^b	Mean=	22%	16(<1%)
Parents in Household (W1)					0
Two parent household: Mother and father	1,313 ^b	71%	2,391	81%	
Other: Single mother	354 ^b	19%	355	12%	
Other: Re-partnered mother	67	3%	72	2%	
Other: Single father	42	2%	50	2%	
Other: Re-partnered father	14	<1%	13	<1%	
Other: No parents in household	72	4%	50	2%	
Personal Income '08 (W4)	Mean =	43,876 ^b	Mean =	49,039	121(3%)
Participant Assets (W4)					125(3%)
Would be in debt	418 ^c	23%	600	21%	
Would break even	283 ^c	16%	324	11%	
Would have some left over	1,113 ^c	61%	1,930	68%	
Participant Household (W4)					0
Living with spouse	871 ^b	47%	1,207	41%	
Living with partner	280	15%	436	15%	
Living with children	667 ^b	36%	724	25%	
Living with mother	216	12%	300	10%	
Living with father	153	8%	20	7%	
Post-Graduate Education (W4)^b					0
None	1,244 ^c	67%	1,697	58%	
Some graduate/professional school	244 ^c	13%	418	14%	

Completed master's degree	302 ^c	16%	600	20%	
Completed doctoral/professional degree	76 ^c	4%	216	7%	
Post-graduate enrollment (W4)					2(<1%)
Currently enrolled in school	309	17%	543	19%	
Emotional Closeness to Parents(W1)					
High closeness to mother	1,637	90%	2,618	90%	63(1%)
High closeness to father	1,226	79%	2,153	79%	516(11%) ^d
Neighborhood in Adolescence (W1)					
Mean percent in poverty	Mean =	14% ^b	Mean =	10%	16(<1%)
Mean percent of adults <25 with bachelor's	Mean =	22% ^b	Mean =	32%	16(<1%)

Notes. ^a May not total to 100% due to rounding

^b Indicates a statistically significant difference between the first- and continuing-generation groups, t-test (p<.05)

^c Indicates a statistically significant difference between the first- and continuing-generation college graduate groups, using the Wilcoxon-Mann-Whitney nonparametric ranked tests of the underlying distributions of the data (p< .05)

^d Note that first-gen grads are missing reports on their father in W1 at 17%, continuing-gen only 7%

Table 2. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Emotional Closeness to Mother

	<i>Model 1</i> (<i>N</i> =4,462)		<i>Model 2^a</i> (<i>N</i> =4,460)		<i>Model 3^b</i> (<i>N</i> =4,457)		<i>Model 4^c</i> (<i>N</i> =4,462)		<i>Model 5^d</i> (<i>N</i> =4,461)		<i>Model 6^e</i> (<i>N</i> =4,457)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	1.17	0.11	1.11	0.10	1.14	0.12	1.18	0.11	1.18	0.11	1.13	0.12
Graduate characteristics			X								X	
Family background (W1)					X						X	
Post-college life (W4)							X				X	
Prior closeness to mother (W1)									X		X	
F	2.73		8.32		3.31		1.46		48.73		9.36	
Prob > F	0.00		0.00		0.01		0.15		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

* $p < .05$ ** $p < .01$ *** $p < .001$. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain, two-parent household at W1, rural ^c Model 4 includes participant post-college life: log 2008 personal income, household debt, assets, post-graduate degrees, current enrollment in school, living with mother, spouse, partner, children ^d Model 5 includes other variables: W1 high emotional closeness to mother ^e Model 6 includes all the variables.

Table 3. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Emotional Closeness to Father

	<i>Model 1</i> (<i>N</i> =4,080)		<i>Model 2^a</i> (<i>N</i> =4,078)		<i>Model 3^b</i> (<i>N</i> =4,076)		<i>Model 4^c</i> (<i>N</i> =4,080)		<i>Model 5^d</i> (<i>N</i> =4,077)		<i>Model 6^e</i> (<i>N</i> =4,073)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	0.93	0.07	0.96	0.08	1.06	0.09	0.92	0.07	0.92	0.07	1.03	0.09
Graduate characteristics			X								X	
Family background (W1)					X						X	
Post-college life (W4)							X				X	
Prior closeness to father (W1)									X		X	
F	09.92		3.65		13.57		2.77		76.45		11.82	
Prob > F	0.34		0.00		0.00	0.00	0.00		0.00		0.34	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

* $p < .05$ ** $p < .01$ *** $p < .001$. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain, two-parent household at W1, rural ^c Model 4 includes participant post-college life: log 2008 personal income, household debt, assets, post-graduate degrees, current enrollment in school, living with father, spouse, partner, children ^d Model 5 includes other variables: W1 high emotional closeness to father ^e Model 6 includes all the variables.

Table 4. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Residential Proximity to Mother

	<i>Model 1</i> (<i>N</i> =4,462)		<i>Model 2^a</i> (<i>N</i> =4,460)		<i>Model 3^b</i> (<i>N</i> =4,459)		<i>Model 4^c</i> (<i>N</i> =4,462)		<i>Model 5^d</i> (<i>N</i> =4,462)		<i>Model 6^e</i> (<i>N</i> =4,458)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	1.66***	0.14	1.59***	0.14	1.40***	0.12	1.65***	0.14	1.53***	0.12	1.44***	0.12
Individual characteristics			X								X	
Family background (W1)					X						X	
Post-college life (W4)							X				X	
Neighborhood variables (W1)									X		X	
F	33.67		9.52		20.25		13.41		12.79		11.95	
Prob > F	0.00		0.00		0.00		0.00		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs. **p*<.05 ***p*<.01 ****p*<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain, two-parent household at W1, rural ^c Model 4 includes participant post-college life: log 2008 personal income, household debt, assets, post-graduate degrees, current enrollment in school, living with spouse, partner, children ^d Model 5 includes other variables: percent poverty, percent with Bachelor's in reporting area at W1 ^e Model 6 includes all the variables.

Table 5. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Residential Proximity to Father

	<i>Model 1</i> (<i>N</i> =4,075)		<i>Model 2^a</i> (<i>N</i> =4,073)		<i>Model 3^b</i> (<i>N</i> =4,071)		<i>Model 4^c</i> (<i>N</i> =4,075)		<i>Model 5^d</i> (<i>N</i> =4,075)		<i>Model 6^e</i> (<i>N</i> =4,071)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	1.68***	0.15	1.64***	0.15	1.48***	0.14	1.67***	0.15	1.55***	0.13	1.41***	0.13
Individual characteristics			X								X	
Family background (W1)					X						X	
Post-college life (W4)							X				X	
Neighborhood variables (W1)									X		X	
F	31.87		9.65		18.70		10.86		12.51		11.03	
Prob > F	0.00		0.00		0.00		0.00		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

p*<.05 *p*<.01 ****p*<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain, two-parent household at W1, rural ^c Model 4 includes participant post-college life: log 2008 personal income, household debt, assets, post-graduate degrees, current enrollment in school, living with spouse, partner, children ^d Model 5 includes other variables: percent poverty, percent with Bachelor's in reporting area at W1 ^e Model 6 includes all the variables.

Table 6. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support from Mother

	<i>Model 1</i> (N=4,460)		<i>Model 2^a</i> (N=4,458)		<i>Model 3^b</i> (N=4,457)		<i>Model 4^c</i> (N=4,460)		<i>Model 5^d</i> (N=4,457)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	1.03	0.09	1.01	0.09	0.97	0.10	0.99	0.09	1.01	0.10
Individual characteristics			X						X	
Family background (W1)					X				X	
Post-college life (W4)							X		X	
F	0.10		6.79		1.40		14.40		10.48	
Prob > F	0.76		0.00		0.23		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

*p<.05 **p<.01 ***p<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain at W1, two-parent household at W1, rural ^c Model 4 includes participant post-college life circumstances: log 2008 personal income, household debt or assets, post-graduate degrees, current enrollment in school, living with spouse, partner, mother, children ^e Model 5 includes all controls.

Table 7. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support from Father

	<i>Model 1</i> (N=4,079)		<i>Model 2^a</i> (N=4,077)		<i>Model 3^b</i> (N=4,076)		<i>Model 4^c</i> (N=4,079)		<i>Model 5^d</i> (N=4,076)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	0.98	0.10	0.97	0.10	1.02	0.11	0.97	0.10	1.08	0.12
Graduate characteristics			X						X	
Family background (W1)					X				X	
Post-college life (W4)							X		X	
F	0.03		7.97		1.79		12.18		10.08	
Prob > F	0.86		0.00		0.12		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

*p<.05 **p<.01 ***p<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain at W1, two-parent household at W1, rural ^c Model 4 includes participant post-college life circumstances: log 2008 personal income, household debt or assets, post-graduate degrees, current enrollment in school, living with spouse, partner, father, children ^e Model 5 includes all controls.

Table 8. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support to Mother

	<i>Model 1</i> (N=4,460)		<i>Model 2^a</i> (N=4,458)		<i>Model 3^b</i> (N=4,456)		<i>Model 4^c</i> (N=4,460)		<i>Model 5^d</i> (N=4,456)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	2.05***	0.27	1.73***	0.21	1.308	0.18	1.96***	0.27	1.27	0.17
Individual characteristics			X						X	
Family background (W1)					X				X	
Post-college life (W4)							X		X	
F	28.89		36.13		46.31		15.06		22.30	
Prob > F	0.00		0.00		0.00		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

*p<.05 **p<.01 ***p<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain at W1, two-parent household at W1, rural ^c Model 4 includes participant post-college life circumstances: log 2008 personal income, household debt or assets, post-graduate degrees, current enrollment in school, living with spouse, partner, mother, children ^e Model 5 includes all controls.

Table 9. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support to Father

	<i>Model 1</i> (<i>N</i> =4,080)		<i>Model 2^a</i> (<i>N</i> =4,078)		<i>Model 3^b</i> (<i>N</i> =4,077)		<i>Model 4^c</i> (<i>N</i> =4,080)		<i>Model 5^d</i> (<i>N</i> =4,077)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
First-generation graduate status	2.00***	0.38	1.71**	0.30	1.35	0.25	2.00**	0.41	1.31	0.26
Individual characteristics			X						X	
Family background (W1)					X				X	
Post-college life (W4)							X		X	
F	13.31		16.04		18.57		8.21		11.32	
Prob > F	0.00		0.00		0.00		0.00		0.00	

Notes. Continuing-generation college graduates are the reference category in each model. Weighted: 4 strata, 128 PSUs.

p*<.05 *p*<.01 ****p*<.001. Each model adds in a separate set of predictor variables. ^a Model 2 adds the following characteristics: female, age, race/ethnicity (African American, Hispanic/Latino, Asian, Other) ^b Model 3 includes family background variables: log 1994 household income, financial strain at W1, two-parent household at W1, rural ^c Model 4 includes participant post-college life circumstances: log 2008 personal income, household debt or assets, post-graduate degrees, current enrollment in school, living with spouse, partner, father, children ^d Model 5 includes all controls.

Chapter 3

Facing a Trade-Off: First-Generation College Graduates' Navigation of Family Tension as They Provide for Their Natal Families (Paper 2)

Abstract

Based on human capital and family systems theories, we would expect that first-generation college graduates' educational attainment could influence others in the immediate family system, yet few studies venture beyond individual outcomes. Drawing on interviews with 43 first-generation graduates, this study explores their family relationships and resource exchanges. Findings show that many graduates are motivated to provide support, often because of the sacrifices their families made to help them get their degrees. But they face a trade-off as they attempt to reinvest in their families. An added tension that results from their own upward mobility alters the meaning behind these supports so that graduates' attempts to provide more mobility-inducing supports (e.g., financial support, professional advice) threaten familial bonds. Graduates thus avoid providing support altogether or switch to providing less mobility-inducing supports that are, more importantly, less caustic to their relationships (e.g., emotional support, care work). On one hand, this may mean that graduates are less likely to provide support that could elevate their family's socioeconomic status. On the other hand, they are able to maintain relationships, which appear to be most important to them. What is more, maintaining these relationships allows them to provide instrumental support that could prevent their family's downward mobility or boost their psychological well-being. By understanding this process, we can see more clearly the importance of immediate family relationships to graduates as well as why they may provide less mobility-inducing support than would be expected based on theories and graduates' personal motivations.

Keywords: higher education; first-generation college students; family systems theory; human capital theories; qualitative research

Introduction

Higher education is an important pathway to upward mobility for many in the United States. Educators, families, and politicians alike laud the lower levels of unemployment, higher incomes, more stable marriages, and better health outcomes of college graduates compared to those without degrees (Baum, Kurose, et al., 2013). A college degree may be particularly transformative for those who are the first in their families to attend college. These first-generation college students often report wanting to support their natal family members with the increased security and capital they hope to gain from their college degrees (Bui, 2002; Gofen, 2007). Researchers have yet to examine whether students are able to follow through on such plans. Though research has investigated some potential impacts of a college degree on individuals (Baum, Ma, et al., 2013), we know very little about what their upward mobility could mean for their families.

We know from findings in Chapter 2 that first-generation college graduates' relationships with their parents differ from those of their continuing-generation peers, but we have a limited understanding of the breadth of, the motivations behind, and the family dynamics surrounding this support. Using human capital (Bourdieu, 1986) and family systems theories (Cox & Paley, 1997)—which suggest that capital attained by one family member may reverberate throughout the family system—this chapter investigates how a first-generation graduate's degree attainment may potentially affect dyadic relationships within the family or the outcomes of other family members. Drawing on interviews with 43 first-generation college graduates from four public regional four-year universities, this study explores the support they give to and receive from other family members (e.g., parents, siblings, cousins) and the meaning of such exchanges. By

examining the dynamics at play in these families, we can better understand how one individual's college attainment may impact family relationships, support exchanges, and economic mobility.

Guided by their desire to support others in their immediate family—both because they want to “show up” for family and because they want to “give back” to family for their previous support—they attempt to provide knowledge and resources to others. However, graduates here experience tension created when their upward mobility changes how these support exchanges are viewed within their familial relationships. In these cases, graduates' attempts to provide more mobility-inducing supports (e.g., financial support, professional advice) are viewed negatively by family—instead of these being typical resource exchanges, they represent an inequality that is perceived as superiority. Graduates, who must then consider what is most important to them—their family relationships or providing this support—switch to providing less mobility-inducing supports. These are, importantly, less corrosive to their relationships (e.g., emotional support, care work) which means they can maintain relationships with their family. By understanding this process, we can see more clearly the importance of family relationships to graduates, how they navigate these tensions, and the impacts this process can have on whether and how graduates may facilitate social mobility of others in their family.

Intergenerational Support Within First-Generation Graduate Families

As discussed in Chapter 1, to guide our understanding of first-generation college graduates' experience of giving and receiving intergenerational support, two theories are useful: human capital and family systems. These theories suggest that the upward mobility of one individual could potentially lift up others in the family system, facilitating their upward mobility or preventing them from potential downward mobility. On one hand, graduates may be able to influence their kin's own social mobility by providing access to new resources and social

networks. Indeed, a notable portion of adult children provide financial support to their parents; 8% of Boomers, 13% of Gen Xers, and 19% of Millennials are supporting parents (Ameritrade, 2017). In the Add Health sample in Chapter 2, 31% give money to their mothers and 26% give to their fathers. First-generation graduates are also more likely to be living nearer to their parents than continuing-generation graduates (Chapter 2), which could mean they provide day-to-day support in other ways as well. Another study shows that first-generation graduate women are more likely to be caring for their parents than their continuing-generation counterparts (Seay, 2010). Their close and supportive relationships could mean that graduates' residential proximity, care work, and financial support translates into positive effects for other family members.

On the other hand, access to first-generation graduates may not translate into better outcomes for the non-college educated members of the family because they lack the same educational attributes; research shows that access to capital-holding kin does not always translate into better socioeconomic outcomes (Curley, 2009; Desmond, 2017). It may be that only the first-generation graduates can rise socioeconomically because only they experience the college acculturation and credentialing process. Without having attained such credentials themselves, family members may not benefit in the same ways as the first-generation graduate.

Additionally, social mobility may be influenced by the meaning behind these exchanges and the ways family members react to each other. As Zelizer (2010b) explains, the meaning of money is particularly important when consider the family because, money in the family is shaped by efficiency, cultural conceptions of money, and societal expectations for relationships. In one sense, providing support to one kin in is rational, but in another, the relational ties between the giver and receiver matter because it can change the meaning and consequences of these gifts (Zelizer, 2010a); for example, \$1,000 paycheck is not the same as \$1,000 given from a parent or

\$1,000 borrowed from a child (see also Zelizer, 2010b). In the case of first-generation college graduates, as the social relationships between family members change, so too could the meaning of money exchanges between them. Thus, the perception of individuals doling out and receiving money may impact the effectiveness of this exchange. Indeed, other forms of intergenerational support may also be subject to changing meanings and interpretations as well as resources such as time and advice can be interpreted through the same lens of changing relationships.

In research examining the interactions around intergenerational support, researchers find that it can be wrought with frustration for families. For instance, over half of financial supporters leave conversations about giving support feeling “obliged to help, disappointed, or frustrated” (Ameritrade, 2017). Sometimes receivers of support also feel negative or ambivalent about these actions; one study shows that parents who receive help or financial support from their adult children feel both appreciation for the help and as though such help is patronizing (Spitze & Gallant, 2004). What is more, there is an added layer of tension when giving occurs across social class lines. In these ties, there is an inequality between the giver and receiver that impacts the feeling of these exchanges. Desmond (2017) shows that evicted Milwaukeeans, all from economically heterogeneous family networks, feel “chastised, infantilized, or turned away” when they look for support from vertical kin ties—family members in a more socioeconomically advantageous position—so instead they turn to disposable ties (e.g., newer and more fragile relationships) in times of emergency to avoid having these feelings. In these cross-socioeconomic class interactions, the meaning of the money matters for how resources are requested and allocated.

This frustration and avoidance of support runs counter to theories of family systems and social capital. These theories suggest that having social ties in a different economic bracket can

serve as “bridging ties” or “leveraging ties,” from which an individual may be able to receive education, training, and other services and information that provides support (Briggs, 1998; Curley, 2009). Yet research has not addressed key aspects of familial relationships that could affect how individuals in advantageous position are perceived. For example, it is unclear whether Desmond’s (2017) evictees avoid their kin in higher socioeconomic brackets because their kin currently reside in this different class or because their kin had always been socioeconomically different. Therefore, first-generation college graduates who are upwardly mobile, and only become vertical ties to others in their family after matriculation and graduation, may be viewed differently because of their original position. They may be more able to navigate class divides having come from the same family experience. This study addresses this limitation by exploring the meaning behind intergenerational support from the perspective of the upwardly mobile first-generation college graduate. In addition, we may garner a different understanding by examining these exchanges from individuals in the upwardly mobile position as opposed to the people in more disadvantaged positions in the vertical tie.

Further, the ease with which emotional and financial resources may flow in the family system could be influenced by the growing resentment between those who are college-educated and urban and those who are not college-educated and rural. In Wisconsin, where most participants in the study sample grew up, recent research finds that people in rural areas appear to distrust those who are urban, liberal, and educated (Cramer, 2016). This resentment may be particularly relevant to first-generation graduates who come from rural backgrounds, in Wisconsin and elsewhere. Education, it seems, is a main way to enhance one’s status, but it appears that this has led to educational sorting that encourages rural students to leave their communities for college (Petrin, Schafft, & Meece, 2014). Although some rural graduates keep

existing ties to their rural communities (Nelson, 2018), many leave for urban areas, which is linked to a “rural brain drain” (Carr & Kefalas, 2009). This process of sorting, limiting ties, and moving to urban communities may create resentment within families that affect the meaning or interpretation of graduates’ support.

Another aspect of one’s identity that may be relevant to the ease and feeling of support in families is gender. Trends in intergenerational support show that women engage in more support of other family members, and there are higher societal expectations for them to do so (Swartz, 2009). In addition, more women are enrolling in college and gaining degrees (National Center for Education Statistics, 2018, 2019; University of Wisconsin System, 2017) and more first-generation college students and graduates are women (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007; Chapter 2). Familial support in the context of upward mobility is thus particularly relevant for women given these trends. Moreover, women and college-educated people tend to be more liberal (Doherty, Kiley, & O’Hea, 2018) which could create further cultural rifts in families related to gender and education. Though all these trends are relevant to this study, the data here includes a majority of women and so this study is limited in addressing questions about how men and women may differ along these lines.

This study examines intergenerational support in the context of first-generation college graduates’ upward mobility, which gives us a better understanding of the potential effects of higher education on American families and communities. Many American families encourage their children to pursue higher education for their own gains, but first-generation students also value this educational attainment because it can help them return the investment to their families (Bui, 2002; Gofen, 2009). In this case, education may provide a pathway through which individuals can access upward mobility for themselves *and* their immediate family members.

Higher education may also create a cultural rift between families, changing the meaning of instrumental support, straining relationships, and blocking the transfer of capital between family members. Despite the importance of understanding how post-secondary education may translate into benefits for whole families, previous research has yet to examine the mechanisms of this process. My focus on the movement of capital throughout the family system highlights the unique experience of graduates in their provision of support in this context. This study sheds light on some ways in which the benefits of upward mobility do and do not spread across natal families.

Methods

Participant Recruitment

Participants were all first-generation college graduates. They were recruited from four state university campuses, all within University of Wisconsin (UW) system. Each of these schools had a large proportion of first-generation students, approximately 40-60% each.⁷ Alumni organizations and school administrators posted information about this study on social media platforms (e.g., Facebook, Twitter), websites, and in e-newsletters asking for first-generation college alumni to contact me directly (Appendix A). I also used snowball sampling methods to increase the sample size by requesting that participants in this study forward information to others who might qualify. To support their participation, participants received \$30 (this incentive was advertised during recruitment).

⁷ The four universities sampled did not include the flagship university of the state because only 20% of students from the flagship campus are first-generation college students. I chose schools that first-generation graduates are more likely to choose according to statistics and research (Saenz et al., 2007; University of Wisconsin System, 2017).

Interview Process

Participants were interviewed in person, via video chat platforms (e.g., Skype, Google Hangouts, BlueJeans), or over the phone. Interviews lasted between 46 minutes and 171 minutes (average = 104 minutes). I used a semi-structured interview guide (Appendix B) to explore their relationships and intergenerational support from and to family before, during, and after college. I prompted them about various kinds of support exchanged, such as specific kinds of conversations, counseling, advice, and institutional navigation (e.g., research about or making calls to insurance companies, banks, or law firms) as well as direct or indirect financial support. I also followed up with questions about how they may have used their college-acquired knowledge and resources in their provision of support to others. All interviews were audio recorded and transcribed. Two interviews were conducted via phone, and though both modes (e.g., face-to-face and telephone) have been shown to produce similar quality information in qualitative research, face-to-face interviews help interviewers develop rapport and add validity to the study (Rahman, 2015); these different modes may mean that the telephone-based interviews were not as in-depth as from face-to-face interviews. Participants provided consent at the beginning of the interview and were informed that they could withdraw at any time. All but two participants filled out an information sheet to provide demographic information (Appendix C); information about the two participants who did not fill out the information sheet was gathered from the interview transcript. All participants have been given pseudonyms to protect their identities.

Sample Characteristics

Of the 43 participants, 13 attended UW-Whitewater, 11 attended UW-Milwaukee, 10 attended UW-Platteville, and nine attended UW-Parkside. In terms of their highest education level, 18 participants had a bachelor's degree only, 18 had completed a master's degree, and

seven had completed a doctoral degree (Ph.D., J.D., Ed.D., or D.N.P.). Participants ranged in age from 29 to 81 ($\mu_{\text{age}} = 49$). They graduated between 1958 and 2014; 18 graduated in 2001 or after and 25 graduated in 2000 or before; the most recent graduates were four years out of college. Thirty participants (70%) identified as women and 13 (30%) identified as men. Most of the sample ($n=39$, 90%) identified as White or Caucasian (one identified as Asian and one as Latin@; two did not identify race/ethnicity). In terms of gender and ethnicity, in 2016 the UW system schools enrolled a little over half women and 80% of enrolled students are White (University of Wisconsin System, 2017). Comparatively, this sample has more White graduates and more women graduates than the UW system overall.

I also used National Center for Education Statistics (NCES) locale codes to identify whether participants' hometowns were considered cities, suburbs, towns, or rural areas⁸ (National Center for Education Statistics, 2008): 23 graduates were from cities or suburbs, and 20 were from towns or rural areas. All participants grew up in Wisconsin or Illinois, much like the UW system students overall (University of Wisconsin System, 2017). The majority ($n=31$, 72%) were married, five were living with a romantic partner (12%), and seven (16%) reported no coresidential partner. Of the participants' marital or cohabiting partners, 82% ($n=31$) had college degrees; and of those with college degrees, 53% ($n=17$) were also first-generation college graduates. Twenty-four (56%) ever had children; those who had children had between one and four children ($\mu_{\text{children}} = 3$). All participants were first-generation college graduates; ten graduates

⁸ NCES uses an urban-centric system of locale codes based on a school's proximity to an urbanized area. The system divides territories into four major types: city, suburban, town, and rural. Population size determines city and suburban areas. Towns and rural areas are determined by their distance from an urbanized area. Participants were characterized as from cities and suburbs or towns and rural areas based on the researcher's best approximation based on their hometown (and high school name when participants stated it).

had parents who had attended college for some period of time. One graduate's parents had Associate's degrees and two participants had mothers who completed their bachelor's degrees later in life, after the focal participants completed their bachelor's degree. Demographics are available in Table 10.

[TABLE 10 ABOUT HERE]

Data Analysis

I coded the data in several rounds using MAXQDA 2018 software (VERBI Software, 2017). Given the large number of interviews and my use of both induction and theory-based coding, I used a flexible coding strategy to best utilize new qualitative data analysis (QDA) software (Deterding & Waters, 2018). Using this strategy, data were indexed according to the interview protocol; interviews were segmented based on the questions asked in the interviews and the topics discussed by participants. Second, analytic codes were applied to focused sections of the transcripts. For this chapter, I examined interviews for examples of first-generation college graduates' family connection and support—both to and from the first-generation graduate. Initial rounds of coding identified all forms of support flowing between first-generation and their family members. I then divided these into different forms of support (e.g., family connection, financial support, care work or actions, emotional support or discussions, navigational or management assistance, and college-related advice or assistance). These forms of support were further divided into support from graduates to other family members and support from other family members to graduates. The analytic round of coding focused on, but was not limited to, these parts of the transcripts. In this round of coding, I identified the reasoning or meaning behind, barrier to, and interpretation of the support that first-generation graduates provided. Given the flexibility of qualitative data analysis software, I used the available tools to verify the

conceptual relationships and rule out alternative explanations and explain negative cases (Deterding & Waters, 2018). For example, MAXQDA's mapping tool allowed me to understand and verify the relationships between kinds of support and graduates' interpretations. As a sole author to this study, I interviewed, transcribed, coded, and analyzed all data; as I was most knowledgeable about the subject matter and could identify subtle meanings in the text, I employed a single coder strategy in this analysis (J. L. Campbell, Quincy, Osserman, & Pedersen, 2013). Given the particular strategy used here, analysis focused on one particular aspect of the data and may not bring out certain differences (e.g., pre-college tracked onto post-college dynamics, gender dynamics) that a different kind of qualitative analysis may provide.

Findings

The findings here illuminate the added lens through which intergenerational support is viewed within these families, introduced by the upward educational and economic mobility of graduates. I first review the support that graduates reported having received from their family members, as this sets the context for their decisions about and the meaning of the support they offer to kin. I then review the types of support they provide, their motivations behind this support. I then turn to focus on the added complexities of providing this support in the context of upward mobility and graduates' strategies for navigating these complexities.

Support from Family Members

Most graduates said they received support from parents and other immediate family members throughout their lives, while also seeing themselves as relatively independent. Their parents, with jobs as farmers, factory workers, mechanics, clerical workers, or in the service industry, had modest incomes. Although most graduates considered themselves lower or lower-middle class growing up, they felt shielded from need as children; as Tara put it, "[our parents]

kept that very much away from us.” In a couple cases, parents were single parents or otherwise low-income, these graduates were aware of their parents’ lack of financial resources. In a few cases, graduates’ parents were upwardly mobile through their lifetime, so need decreased as they grew up.

Similar to other studies of first-generation college graduates (Gofen, 2009; Kiyama et al., 2015), respondents here said their parents were unable to provide much financial support or college-related knowledge, but encouraged them to go to college. Almost every respondent felt they had been encouraged to attend university—many could not remember the first conversation they had about college, but the expectation of their attendance was “implicit.” Susan explained there was an “expectation that you were going to go to school.” However, with little to no knowledge about college, parents gave emotional or financial support while graduates navigated the logistical process on their own. Parents were “hands off.” Brenda explained what typically happened, “I am sure that they weighed in, but I drove that conversation and asked for their input.” Only a couple graduates said their parents lead the college application and financial aid process for them.

During college, many graduates felt they received some kind of support from their parents, consistent with the findings of previous research (Gofen, 2009; Kiyama et al., 2015). Support varied; most parents provided encouragement and emotional support, about a quarter let them live at home rent-free at least part of the time while they were students, a handful supported the cost of one-off expenses (e.g., books or an unanticipated emergency expense), and another handful paid part of the tuition bill or, very rarely, all of it. One graduate, Sofia, had children while she was in college and her parents helped her by taking care of the children while she was in class. Housing is one of the largest expenses of college (Chingos, Lee, & Blagg, 2017), so

while many graduates recognized that their parents did not have the financial means to help them with cash or tuition payments, they were grateful to have the cost of housing covered even if it meant attending a nearby college. Almost no graduates in this sample considered a private or out-of-state school. At the time they were making college-related decisions, any potential benefits in attending a school farther away were not outweighed by staying close.

Generally, graduates who received support felt grateful for it. The support felt like a gift, one that was often instrumental in their ability to complete college. For example, Debra explained that she would not have finished college if her parents had not been able to help her out financially when she got behind on rent payments during school. Sofia felt similarly that the child care her parents provided was the reason she was able to get her degree. It was because of their support, often given despite parents' limited financial means, that allowed graduates to gain the degrees they and their parents wanted for them. Interestingly, all graduates compared their parental support to others they met in college and rationalized their own experience as positive—those who received little support felt they gained a stronger work ethic and those who received more support felt they were able to concentrate fully on school. However, based on what graduates said, their parents' ability to give support appeared to depend more on their own financial circumstances rather than their interest in cultivating a particular character trait in their children.

A couple, in contrast, did not feel they received support from their families to go to college. For example, Rick explained that he found his path to college blocked by a father who “didn't believe that I would make it through.” He had to go to community college before his father would let him enroll in a four-year institution. Noi, having grown up in a tight-knit Laotian community, remembered her family asking, “Why do you need to go to college?” since they

preferred that she get married right away instead. Kathy's mother similarly wanted her to marry a "farm boy" and stay in their rural town, and she did not see college as helpful to Kathy attaining this ideal life. Kathy imagined a different life for herself, and she decided at 11 years old that she would have to "get out of dodge" once she graduated high school. For college graduates like Rick, Noi, and Kathy, higher education was the way out of their family and financial circumstances, rather than something that was encouraged and facilitated by their family members. They achieved their goals with little to no support from family. Sometimes they found other mentors, advisors, and financial supporters that could provide instrumental support to help them make it through college; as an example, Noi's bosses in college helped her find a place to live in Milwaukee and paid for her to attend a study abroad program during her junior year.

After college, almost all graduates remained connected to their family though few graduates received support from their parents and other family members. As children transition into adulthood one of the main goals is independence, financially and otherwise (Arnett, 2000). Indeed, many graduates appeared to grow apart from their family members during college—as will be discussed more later, their divergent paths brought along changes in their attitudes, behaviors, and perceptions. Having crossed into a different socioeconomic status after graduation, where most graduates were now in professional careers different from the factory and farm work of their parents, family was further segregated by facets of day-to-day life. This meant that graduates tended to be less close to their families than they had been in adolescence and that parents could not provide occupational advice as easily. Again, graduates navigated the process, but now fewer asked for input. A couple graduates did discuss receiving emotional support from family members (e.g., Katie explained that her dad has been her "main person to bounce ideas off of" all her life; Rachel remained close to her parents, asking them for career and

financial advice on a regular basis). A couple even continued to receive financial gifts, especially from parents, for things like weddings, to support homeownership, or for children (e.g., Melissa's parents gave her cash gifts for her children). In terms of visiting, almost two-thirds lived close enough to see their families often, whereas a little over one-third lived "far away" and visits were minimal. Not living close was another way that potential rifts emerged between family members as many that lived far away chose to live in larger cities or places that were culturally different than the midwestern states they were from (e.g., Australia; California; Washington, D.C.). This meant that, to remain close, graduates engaged with their families in ways that did not require in person interactions (e.g., phone calls, vacations together).

Graduates' Family Connection and Support Before and During College

Far less commonly, graduates provided support to family members before and during college. Those that did provide support typically did so for the benefit of the family unit—graduates described taking care of siblings (e.g., May's parents referred to their children as "May and the kids"), working at the family store or tavern, and doing chores on the farm. Most clarified that their contributions did not go "above and beyond the normal family," as Stan put it; to him, and many others, doing work around the house to benefit the family was "normal." Several graduates provided support that was taxing for them, emotionally or financially. Being "May and the kids," for example, was something that May later resented for a period of time in her life; she talked about how she felt forced to raise her six siblings because of her parents' dysfunctional lives. More often, graduates discussed their early financial independence, providing essentials (e.g., haircuts, clothing, gas, school supplies, car insurance) or treats (e.g., trips, dining out) for themselves in lieu of having their parents support them. This relieved their families of such burdens and meant that families could focus their financial resources elsewhere.

During college, the vast majority of participants continued to stay at least somewhat close to their parents and other family members, by staying in touch, providing emotional support, or continuing to perform household duties for parents and family members. Given that many graduates were in the position of paying for their college education, they typically did not financially support their parents or other family members—though there were some exceptions. For example, when she was still in college, Kristin gave her sister money because she was struggling financially to care for her two young children. Some gave their parents rent money or paid for household items, and a couple lived with other family members in return for performing household chores or providing medical care.

For many participants, college was the time during which they became less interdependent with their families generally. The growing distance between them and other family members often meant they did not know how to communicate with about their new day-to-day lives. During college, graduates were engaged in a process quite unique to family members and communication became more difficult—some graduates, who had close relationships with family members, appeared to be able to navigate these cultural rifts while others found the rifts unsurmountable. For example, Grant said most conversations between him and his parents involved surface-level questions about how college was going that neither he nor his parents followed up on, even though they were living under the same roof; another participant, Terry, said that she felt that her parents did not know what questions to ask, but if they had asked then she would have answered. Since they did not, the topics remained untouched. Others, who bridged this communication gap with ease, remained close throughout college and to this day—these were often participants whose parents followed their college journey, by asking questions, listening to what they were learning, and absorbing this new information for themselves as well.

Many who felt their worldviews change saw this distance between themselves and their family members increasing, whereas others who had fewer personal changes in their beliefs during college did not see as much of a growing rift between themselves and their family members; this will be discussed in the next section in detail.

Graduates' Family Connection and Support After College

Most graduates describe staying physically and emotionally close to their families *after college* as important to them. For example, Kristin would not move away from her hometown despite rising up the professional ladder in a national company and her boss frequently encouraging her to move to New York City so that she could move higher within the company. Similarly, Brenda lives in her rural community, so she commutes to Chicago two or three days a week for meetings in the fancy office building downtown which stands in stark contrast to her rural home life. Both of these participants knew that their companies were willing to support them to a point, but that career opportunities would be limited if they did not eventually move to larger cities. So far, they have been willing to sacrifice their professional mobility to remain close to their families and provide their children with the opportunity to grow up near family. Other graduates, who live farther away (for some, “far away” was as little as an hour’s drive by car and for others this was a flight or two), stay in touch with family via phone, social media, email, and visits to family whenever possible (sometimes as often as once a month). In contrast, a couple graduates talk of the distance between themselves and their families; one example is Rick, who moved to California and has since cut ties with his family.

In addition to staying emotionally and physically close with their parents, there are several different ways that first-generation college graduates in the sample provided support to their parents and other family members. These include direct financial support, in-kind support

or other purchases, care work, emotional support or discussions, and institutional navigation or management assistance (Table 11). Graduates provide one or more of these kinds of supports. In addition, graduates provide college assistance or advice to others in and outside their family. Some of these actions are thought to be more mobility-inducing, like financial support, and appears to be preferred by graduates—though as discussed later, the preference for providing a particular kind of support does not necessarily relate to the likelihood of its implementation.

[TABLE 11 ABOUT HERE]

Support typically follows trends that we see in the literature (Seltzer & Bianchi, 2013; Swartz, 2009), though that is not the focus of this chapter so I will not discuss them in detail. For example, in terms of family need: graduates from families where parents are upwardly mobile themselves, or never struggled, tend not to provide as much support because their parents have less need for it. In terms of age, those who are younger tend to have more student debt and are thus less able to provide financial support to their families; some of these graduates provide nonfinancial support or anticipate providing financial support or care work in the future. Likewise, other graduates who have limited financial resources tend to provide little or no financial support to others. Finally, in terms of gender, women tend to talk more about issues that occurred within families when providing support than men but that may be because they are more likely to communicate with family members regularly (Seltzer & Bianchi, 2013); data here includes a majority of women and are limited in addressing questions about how men and women may differ along these lines.

Two important and new aspects of intergenerational support arise from these interviews. The first is their motivations behind support, which I will discuss next. In this regard, participants discussed three main reasons they provide support. The second finding highlights an

added tension in intergenerational support that results from their educational attainment and upward mobility. I discuss this tension and the ways that graduates navigate it in order to preserve their family relationships.

Motivations Behind Support

Fitting with working class norms of interdependence (Lamont, 2000; Stephens, 2009), many participants show a desire to be part of their family and community and report that they are motivated to support others in their kin network. For some, this is a continuation of support they provided before or during college, while others want to start supporting family for the first time given that they now have more resources at their disposal. Three main motivations for providing such support emerge from the interviews: “showing up” for family, “giving back” to family, and “paying it forward” to family or community members.

Showing up. A sense that being present for family—physically, emotionally, or financially—is the “right thing” to do emerges strongly from this data. Hannah, for example, lives an hour and a half from her mother, and describes how she once drove to her mother’s house, and then drove her mother to see her grandmother, an hour away; after the visit, she drove her mother home, then drove herself home. It would have been far speedier for Hannah to drive directly to her grandmother’s and meet her mother there, but she was willing to drive this six-hour trip because “it’s just what you do for family.... You show up for family.” Her mother does not like big cities, and this is a way that Hannah could support her. She explains:

I definitely feel a-- [pause] I have to-- it's not a burden but, I should be doing that. That's something I should be doing, yeah... I feel like it's a... a requirement, that's what you do for family. ... It's just what you do for family... You do stuff for family. And that's kind of how my family is. We rarely talk about feelings and emotions but, you show up for family. You're there and you do stuff. And that's how we don't usually-- we're not a very hug-y or tell each other "I love you" family, but you go cut a tree down for your dad. That's what you do.

Although Hannah's life path after college took her geographically away from her family, showing up in person—despite the distance—has been a priority, as this is how love and kindness are expressed in her family. With the more limited career opportunities available around her hometown, Hannah is able to pursue the career her college degree enables and maintain her family relationships by paying the price of regular, long-distance (hour and a half or more) drives so she can “show up for family.” In this way, she has resisted some of the distance her upward mobility could have brought into her family relationships.

Paul explains that he was raised to support others in his family and community as well. He had his father live with him in his late 20s; and now he gives money to support young couples in his family to pay their mortgages. He explains one of the reasons why he gives his support:

So, what the hell good is [making a high salary] if you can't give it away to family and friends? So, if some organization needs it, “Here it is.” I talked to Jim from church and they need new computers. “Here's a check, knock your socks off.” Because I can't take it with me. Yeah, but that's my parents taught me: If you've got it, share it.

Although Paul lives in different circumstances from many of his family members—a lifestyle enabled by his college degree—he lives in his home community and maintains a loyalty to the values he learned long before college. He “shows up for family” not just by offering financial support when needed but also by living out the values his parents established in their family.

Giving back. A second motivation for providing support to family members is “giving back.” Graduates provide support in return for what their parents (or other family members) sacrificed in order to give them the ability to gain their college degree and push ahead socioeconomically. Reciprocity is a reason that many adult children want to support their parents (Schwarz, 2006) and it seems to be particularly important for first-generation college students

(Bui, 2002; Gofen, 2009; Jury et al., 2017), who consider their parents deserving of their support because they helped get them onto their new life path.

Although Julia does not have much to give to her parents, she likes providing “fun” experiences and items for them that they would not otherwise experience. For example, she surprised her mother with a weekend vacation to Duluth, complete with spa treatment for the two of them. Much of her parents’ money goes to medical bills from her father’s recent car accident and lengthy recovery, so Julia provides these “extras” as a way of helping her parents to feel special because “they deserve it... I wish that life was easier for them... They worked so hard.” Julia feels a desire to “repay” her parents for what they provided to her, particularly because they did so despite their limited means. She reminisces about how they provided her housing during college and encouraged her to follow her career, which took her six hours away. Choking up, she explains that when she was first getting established in her adult life in this new city, her parents would send her money they could not really spare “just so I could stay alive basically.”

That her parents sacrificed so much for so long to give her an easier life fills her with gratitude and guilt. “So, knowing that they didn’t really have it and they [sent money] anyway, I wish that that could be repaid.” Even as she doubts that she can fully make it up to them, she tries to do so by buying them special treats that could make them happy. This feeling of indebtedness, and a desire for reciprocity (Schwarz, 2006), fuels Julia’s motivation to provide for her family in some way. She knows that she could not afford to pay the medical bills for them because she still owes student debt herself and worked for minimal pay. Instead, she gives back to her parents in little ways that she thought would allow them to take a break from the stresses and worries of daily life. Julia could advance financially in her own life more quickly without making such purchases—the money for her mom’s vacation could have gone to paying down her

student loans—but giving back to her parents is just as important to her as paying back her official debts to creditors and is more important to her than maximizing her individual success.

Other graduates also discuss this sense of deservingness tied to their parents' circumstances, the sacrifices they had made to help them, and their desire to support them now that they had the means. Sofia, for instance, whose parents helped her attain her college degree by regularly watching her three children while she took classes and worked as a waitress, wants to repay her parents as well. Despite not having very much money, they provided hours and hours of child care, watching her children when they were not working on the factory floor. She feels indebted to them for their support and thinks it unjust for her parents, retired after years of back-breaking work, “still have to worry” about money. So, she explains, she wants to take the weight of financial concerns off her parents' shoulders and give them a couple hundred dollars a month:

For whatever.... they want to do. Just to start off with. Actually, down the line, I want it to be more because I don't want them to have to worry about groceries or the light bill or whatever bill... So, the factory work that my dad did, physically, it was very hard labor... it makes me sad to see how physically impaired it made him from working this job to be able to give us what we have... [T]hat is my supreme goal, I want them to live with me and I don't want them to have to worry about [anything]... And knowing that he's so proud of me finishing school and having this accomplishment. He tells me all the time, he is just, God, he was telling me today, just how happy he is and how worth it, it was for him to have done everything that he did for us... No matter what, my plan is they're moving in with me and I'm taking care of them now [laughter].

This feeling of guilt that her parents still has to struggle while she moves ahead, knowing that she was bolstered by the sacrifice they made for her, motivates her to support her parents now that she had financial security. Sofia's increased income affords her the ability to support her parents, but she could, similarly, use that money to enhance her own children's outcomes. She chooses to support her parents because of the sacrifices they made, like her father working at the factory that so devastated him physically, because it gives her a sense of fulfillment and joy.

Sofia, like many other graduates, knows that her parents support was critical to her getting her degree and it is just as important to her that she support them as well as her own children.

This feeling of indebtedness builds on research about *family achievement guilt* (Covarrubias & Fryberg, 2015; Covarrubias, Romero, & Trivelli, 2014), which shows that first-generation college students feel guilty for the opportunities they received over and above their family members. However, in these stories, we see that graduates view their opportunities in the context of their family. Instead of merely comparing their opportunities to the opportunities their family members' have, they acknowledge their families' sacrifice in their success. They do not take their family members' support for granted. Indeed, as discussed earlier, most graduates felt that their families encouraged them to go to college and helped them through it in any way they could—often despite limited resources. Instead of merely helping others to relieve their own guilt (Covarrubias & Fryberg, 2015), graduates feel good about providing support to their parents because they see the imbalance of support and are attempting to correct it. Rather than “working off” the guilt as if they have done something wrong, they are honoring the opportunities that their families gave them by attempting to return the favor.

Paying it forward. Graduates also describe “paying it forward,” and “it” appears to be their successful navigation of college and resulting upward mobility. Graduates mentor siblings and cousins, helping get them “squared away” through the college application and financial aid process, finding housing, and navigating the new college environment. Many also support people outside the family, namely other first-generation or low-income college-goers like themselves. For example, Noi, who had received substantial support during college from her employers—themselves first-generation college graduates—remembers telling them “I know I can never repay you for everything you've done for me.” They told her “to pay it forward and do this, what

we've done for you, do this for somebody else.” She has since taken on many mentees and mentors them through college and graduate school, helping them navigate financial aid and receive full scholarships. She explains, “that's how I'm paying them back.”

Katie, in her journey through college and graduate school, learned that she could use her successful experience navigating the campus to support younger students. She now works at her alma mater as an administrator. She explains that she finds great fulfillment using insight from her experience to support other first-generation students in college and through graduation:

I [have] mentored a lot of first-generation college students from a million different backgrounds. I've spent time with them and their parents in the writing room, all the way through it.... I try to give people whatever advice they're hoping for, whether it's about how to get through school or you know who to talk to on the campus, get people routed, if they want personal advice and they ask for it, I'll weigh in with the best of my life experience... Because sometimes I think it's good for them to know... you're going to come all the way to the other side.

Serving as a role model means that Katie, now enabled by her success through college and career on campus, can use her experience to guide other first-generation graduates who may not have family connections to draw support from. Her fulfillment, which she discusses, comes from watching these students “come all the way to the other side” and successfully graduate from school; she finds joy in these moments, using her experience purposefully to guide others to achieve the same mobility that she has achieved. Her support not only helps first-generation graduates attain upward mobility but also her own sense of purpose.

Others use financial resources to pay it forward. Susan, for example, created a scholarship at her alma mater designated for students who would not have the means to pay for college themselves. She sees this scholarship as paying forward the benefits of the education she had received from college to others from similar backgrounds; though the scholarship only serves one student currently, she explains that her will creates an endowment that will support

many students. To her, this scholarship provides for future students, who will use their education as a tool for upward mobility as she did, to benefit themselves, their families, and society.

Complicating Intergenerational Support with Upward Mobility

Despite their motivations for supporting family, many graduates have difficulty doing so. They find that it is not as easy as giving money or advice because they want to maintain, and not poison, their relationships within their families. Upward mobility, though often a goal for their families and themselves, inadvertently introduces new family dynamics that alter the meaning of monetary exchanges which, in turn, lessens the flow of support from graduates to their families. Although everyone in the sample is upwardly mobile, in their educational achievement at least, only a portion also have difficulties in their familial relationships. For these graduates, it appears to be the educational inequality between them and others in their family was what colored their relationship dynamics, causing issues between family members. In contrast to prior research that assumes these altered relationship dynamics occur because of economic differences (e.g., Desmond, 2017), here it seems to be more about how transformational college is for individuals: how much their habitus changed (Bourdieu, 1986) because of their new college-acquired knowledge, attitudes, and behaviors. The difficulties that arise tend to stem from these different dispositional attributes rather than from how much money the graduates have in comparison to their families. For example, of those that were economically upwardly mobile, half speak in depth about the difficulties they face in family dynamics, whereas almost all of those who identified college as more transformational speak of these difficulties. When college changes graduates, it adds a new dimension to their relationships with their family members that last long past the college years.

Engaging in intergenerational support is already difficult, graduates find that the added lens of upward mobility and educational inequality creates further difficulties. There were three ways that upward mobility complicates graduates' family dynamics that I will discuss in this section, 1) changes in first-generation college graduates' attitudes and behaviors, 2) graduates' interpretations of their families' actions, 3) graduates' feelings that their behaviors are perceived negatively. While it appears that college changes graduates' attitudes and behaviors, at least for some, we cannot be sure that these perceptions between graduates and their families are the result of college or had been there throughout childhood and adolescence. Regardless of when these changes or perceptions appear, having at least one of these factors changes meaning and feeling of support within families, which alters the family dynamics in ways that get played out in bigger ways now that graduates are adults. Even if these differences were present in childhood, the differences are playing out in bigger, dollar, ways after college. What happens is that these changes make it less possible for graduates to engage in mobility-inducing intergenerational support even when they were highly motivated to do so. By choosing to preserve their relationships within their family at the cost of providing mobility-inducing supports, we see the importance of familial relationships to graduates. There are, of course, exceptions to this process, which I will discuss as they shed light on why some graduates had these issues whereas others did not.

Changes in college graduates' attitudes and behaviors. Almost all graduates describe college as opening up their minds and worldviews. Paige explains that the “most influential [people] in my life were those people I met in college.... not saying that my family wasn't influential in any way, but I think definitely most of my view, my world view was developed in college.” Paige finds that her parents see the world as narrower and like to stick to their routine,

whereas she identifies more with what she was taught in college: to think outside the box, be open-minded, and “if something doesn’t work, try a different angle.” This makes it hard to interact with her parents, even in seemingly simple tasks like picking out a restaurant for dinner. Her preferences have changed because having open-minded values has led her to trying and liking new cuisines that her parents are not comfortable eating. Without her experiences, she feels she would likely have stuck to a similar path as her parents, living closer to them, and having a life that Chris explains would be “pretty much just a continuation of the life that my parents lived: working class, making ends meet, kind of narrow view of the world.” Chris, too, feels that college gave him the opportunity not only to prosper economically by moving beyond making ends meet, but also a more open-minded and wider view of the world. This enables him to do much more with his life, in and outside of work, while his parents stick to their day-to-day routine. In these ways, college afforded them something beyond economic and educational mobility, a change in habitus (Bourdieu, 1986). Like Paige and Chris, graduates explain that going to college changes how they saw the world and behave in it, which created distance between them and their family members.

The friction between them shows up in communication as well. Hannah, for example, explains that since college, she now thinks more progressively about race, gender, and sexuality; having been exposed to other people’s experiences in college and graduate school showed her new ways to live in and experience the world. In contrast, her parents have “been in a bubble their whole life” and have not changed—they still think conservatively. Moreover, Hannah feels she has to have “a lot of patience” with her father, who believes that “college brainwashes people.” She finds this attitude particularly grating since her father made it an “expectation to go to college” but seems to reject the person she became from living up to his expectations. His

attitude makes her feel like she cannot fully share who she is now and what she believes. One example of a topic that causes friction is sexism. She explained:

I get really upset like when people say... sexist things. I'm a school counselor so one of my big things is making sure girls feel empowered. And then I go home, and my dad says wildly inappropriate things about women. I don't say anything because he's my dad and I have to avoid that conversation because it's my family. So, going home I have to kind of turn a part of myself off. Because otherwise...we've ended in screaming matches. So, it's easier just to avoid that now. Which stinks because then I'm not saying what I actually believe, but it's easier than battling [him]... It's tough.

Hannah talks about straddling two worlds, one in which she can speak her mind and talk about her beliefs—in her own home, with her husband or friends from college, graduate school, or work—and another where the “battle” is so unattractive that she does not say anything and avoids the conversation. Just as Hannah is willing to pay the price of her time—driving her mother many hours to her grandmother’s—she is also willing to pay the price of silencing part of herself. She is willing to do these things because maintaining her relationships with her family, even as she lives far away from them and has different beliefs from them, has remained immensely important to her.

Political differences are another friction-point between family members, as this is an important aspect of one’s world view that is often associate with social class (Manza & Brooks, 2008). In fact, every graduate who talked of political differences with family and tried to support them found it difficult; in every case, the graduate is more liberal or less conservative than their family members. This may have been a particularly salient part of family dynamics for first-generation graduates because interviews were conducted in 2017 and 2018, a year after the polarizing Clinton vs. Trump presidential election. Many graduates brought up the election or other political topics on their own, especially those who came from more rural families, which tend to be more conservative in this study and in the United States broadly (Parker, Horowitz, & Rohal, 2018). Generally, women and college-educated people tend to be more liberal (Doherty et

al., 2018), though there is mixed evidence on whether college causes this progressiveness (C. Campbell & Horowitz, 2016) but it does appear to influence political confidence and engagement (Beaumont, 2011). Politics, one aspect of a graduates' world view, may be a key silencer of communication within first-generation families as first-generation graduates may lean toward liberal views while their families hold more conservative ones.

One consequence of the strain of navigating family dynamics is that graduates sometimes feel like they should do more to bridge the gap between their familial and professional communities. Debra, for example, feels like she missed opportunities to create open communication and a dialogue between differing opinions within her family. She recognizes her unique position to be able to bridge gaps between two socioeconomic groups and that she could have “more impact in a positive way if I did a better job at engaging with my family about what it is that I do.” As a scientist, she feels like she looks at the world objectively while her family views the world more emotionally. But she explains that figuring out “a way to do [have conversations with them] in a nonthreatening way” is too hard. Here difference in mindset was enough to threaten the family dynamic so much that she did not bring it up. For Debra and others, it was just too hard to try to navigate these rifts and because they valued these relationships and wanted to preserve them, they would try not to rock the boat. Introducing money, advice, or other threatening forms of communication or support were off limits.

These changes in graduates mean that it is harder for them to engage with their families. Because of differences between them, Hannah and others are unable to communicate easily with their families, which facilitates negative perceptions between them and their family members. In this context, introducing mobility-inducing supports such as money would be viewed negatively, as if graduates were judging their family members to be wanting by doling out support in an

effort to show their superiority. Many graduates have a hard time even considering what it would be like to give their families such supports, some laughed or rolled their eyes while moving on to discuss what they were able to provide for their families. For those that “tried,” as Henry and others did, but that he could not contribute on a regular basis because, as Henry states humbly, “that wouldn't go over very big.” Instead, graduates provided things that would not violate the norms of their family or offend kin.

There were exceptions to this tension. One exception included people who do not feel that college was a profoundly transformational experience, as they often remain similar and close to their parents. For example, Paul and John, who both come from conservative families and remain conservative, and Stan, who comes from a liberal family, remains liberal; none of these men have issues with their families. In addition, graduates whose family changed in tandem with their learning are also exceptions. For example, Allie explains that her family grew with her. She explains that if she had not gone to college, “I wouldn't have learned as much, [and] they wouldn't have learned as much.” In her eyes, “they've really changed a lot, and are much more accepting and understanding of people.” Allie's parents are examples of ones who constantly ask her questions and hanker to know more about college and her life since—especially her mother, who would have liked to have gone on to higher education herself.

Graduates' perceptions of their families' behaviors. Another way that graduates' relationships with their families suffer has to do with graduates' interpretations of their families' behaviors' in comparison to their own choices. This comes up most frequently in tensions between siblings and when graduates lent others money. Several graduates, in discussing the tensions that arose from their educational success, say things like Julia does about her brother, “I worked really hard [choking up]. You know? Like I didn't—nobody gave everything to me any

more than they gave anything to [my brother].” In this case, Julia’s brother struggles with her advice and felt it unwelcome since she no longer shared the experience that he and the rest of her family had. She had finished college, pursued her passion for theatre, and moved six hours away. Julia feels they had the same opportunities but that she made better choices than he did; the educational inequality here means that Julia has an added layer of guilt for her success while, at the same time, feeling justified that she did the “right thing,” something that she feels he could have also done had he made different choices.

Money, too, is an area where other people’s choices are found lacking in comparison to their own. For example, some graduates struggle with the decision to offer family members financial support, specifically when they feel that their money is not spent how they would prefer. To avoid this frustration, some graduates control what their gifts are spent on by altering their support from direct financial support to a purchase they could make instead while others withdrew support altogether. We see Harry experiencing these struggles. Harry sent a check to his cousin who was struggling financially with “no strings attached.” Though he wanted her to be able to decide how to spend the money, he wonders if the money went toward items he deems worthwhile, like groceries, rather than supporting something he disapproves of, like her smoking habit. While he knows that asking would have hurt their relationship, he finds himself wishing she volunteered the information, as it would make him feel better about giving her money.

Noi also struggles to support her family, finding that money is spent in ways she does not see as important. In one case, she heard that her sister wanted to attend college—something she saw as worthwhile and had been encouraging her sister to do for several years—and so she decided to help her financially. She saw this financial support as an opportunity not only to help her sister get ahead in life but also a chance to “rebuild” their relationship, which had been

damaged over the years by the tension between them. She heaves a disappointed sigh when she explains that she later found out that her sister never spent the money on her education. Noi also describes two instances when she sent money to her mother, who she feels deserves the money, and found out that her sisters had taken it out of her mother's bank account. Since these incidents, she says, "I'm always hesitant to send [my mother] money because I feel like [my sisters are] somehow getting it and it's not going to what she wants to do with it." Because she does not trust her sisters and their spending decisions, she has limited herself to sending monetary gifts to her mother only for birthdays, Christmas, and in emergencies. She feels less attached to how her family spends gift money, as opposed to money that is designated for other purposes (like education or supporting their mother's day-to-day expenses). She chokes up when she describes how she started to see a tension between helping advance her natal family—whose spending decisions she questions—versus her own family: "I [have] got to think about my own family. Money going out is less money for my family [choking up]." When she spends money on her own family, Noi can be assured that the spending is aligned with her values. This meant that when she supported her natal family, she exchanged mobility-inducing supports (e.g., money for day-to-day expenses) for supports that were potentially not as fruitful (e.g., money in emergencies or for birthdays and holidays). Instead of boosting their regular income, which could afford them a different lifestyle, or benefit their education as she had intended, her supports could help them maintain their current lifestyle in emergencies. But, by doing this she preserves her relationship with her family, her own psychological well-being, and the potential mobility of her own children.

The widespread nature of such concerns can be seen in the strategies Paul uses to avoid the frustration Noi has faced. He explains that he supports his family members financially only if

they uphold his values. His gifts were overtly contingent on living life in accordance with his beliefs. He states simply: “if you’re married and have a mortgage, I give you ten thousand bucks to the mortgage, not to you. You get it to the mortgage...because I don’t want you pissing it away.” He chose to only support his relatives who were married because “if you’re not married, just shacking up with somebody, I don’t care. Too bad. ... It’s not my standard.” Paul’s economic success enables him to financially support his family members, and he does it how he sees fit. In this case, Paul did provide mobility-inducing supports—\$10,000 per year means that these couples could pay down their mortgage faster and allow them to save more or divert their income to other needed expenses—but only to those individuals who he saw as worthy. The reason he chose to do this, he explains, is that he is less concerned with these family relationships—as a very straightforward person, he is not shy about enacting his values. These kinds of examples show that having someone “pissing it away,” was not something graduates appreciated, and they control the potential for this in various ways that would ease their personal frustration.

Graduates’ feelings that their behaviors were perceived negatively. A final way that tension finds its way into family relationships has to do with graduates’ feelings that their families viewed their behaviors negatively. Many graduates spoke about knowing the potential for this from an early age; their families had complained of negative characteristics associated with higher education—those with a college degree were described as “uppity,” “braggarts,” and “less hard working.” So, at the same time they were encouraged or expected to go to college because of the better economic prospects it could provide, they also knew they would not be forgiven if they acted “better than” other members of the family. Sandra says she knew that “there is nothing worse than having a big head about things,” so she tries hard not to act that

way, playing down her accomplishments to avoid tension with her family. Barbara laughs about it, saying her family would wiggle her finger at her and say, ““you’re the one that will have a college education, but don’t think you’re too smart!”” These graduates knew that their families would disapprove of their big-headedness if they were not to act humble, so they attempt to avoid this type of confrontation with humility.

But efforts to have humility are often not enough, as their family members interpret their behaviors as negative anyway. Katie, who typically acts humble when interacting with her family members, finds that her father appears to judge the lifestyle her college degree brought:

So, my dad, sometimes, I think, looks at my professional job and my husband’s professional job like, “You guys have all this money.” Like, I have a cleaning lady that comes once a month... it’s this extravagant thing, in my mind, that I never thought I would do, but it’s so wonderful. And my dad is like, “Well are you rich now? What’s wrong with you?” It’s this negative attitude towards, well, if you have all this money—type thing.... I say things like, “You should be proud of us. Isn’t this what you wanted?” ... Isn’t this what you guys worked for? To get us to this point? So, it’s a give and take. But I do think they are proud. But there are definitely weird views.

As a dual-income household with two-children, strapped for time, Katie makes the financial choice to hire someone to clean the house; though this seemed “extravagant” to her based on her prior life in a resource-strapped single-parent household, it buys her time and peace of mind for her family (E. Dunn & Norton, 2013). Her father continues to believe this is “extravagant.” Instead of being humble or efficient, it looks to him like she is flaunting her money. Another consequence of her father’s “weird views” is that he is unwilling to accept money from her when she offers it. He seems to be uncomfortable with the lifestyle Katie is accustomed to, which also seems to make him feel uncomfortable with the idea of Katie helping him out financially even though she now has the resources to do so.

Ironically, the very characteristics that allows them to support their families are often the same ones that raise their risk of being accused of lacking humility. Supporting a family member

with money or advice could be viewed negatively—making them seem, in the eyes of kin, to be a braggart or as though they believe they are “better than” their family members. To avoid these perceptions, graduates conscientiously find ways to support others that do not display their socioeconomic status in a displeasing way or create resentment within the family. Susan calls these “sneaky ways” of providing support; either by doing it without someone’s knowledge or by negotiating in order to provide support. Katie’s father is overtly uncomfortable with her affluent lifestyle and seems unwilling to accept help from her, so she finds ways to give back to her parents that would not offend him as much, such as picking up the tab for groceries or car service bills and refusing to allow him to pay her back. In Katie’s view, she provides these actions in lieu of providing direct financial support, something she knew her father would never accept. Being a busy mother of two young children, providing this kind of support is also efficient; she can pick up what her father needs while she is already running errands. However, despite her positive intentions to return the favor to her family and the positive feelings she has from providing this kind of support, it still appears to hurt the relationship between her and her father. Her father’s actions reflect an unwillingness to allow familial roles to be reversed or an avoidance of being infantilized by his own children (see also Fingerman, 2003; Spitze & Gallant, 2004). But the added dimension of upward mobility means that Katie feels indebted to him—after all, his support allowed her to make it to this new socioeconomic status—and thus she wants to provide for him as he did for her (whether he liked it or not). But by introducing money into their familial exchange, Katie tips the balance of their relationship and violates the norms of their relationship. This means that her father now feels indebted to her, which she did not intend.

Clark called his own parents’ unwillingness to be supported “pride,” which led them to reject his offers even after they went bankrupt. Nonetheless, he and his siblings have found other

ways to provide support and preserve familial relationships with his parents; he does construction work and maintenance around the house, and his sisters attend to housework and medical care for their parents. They take pains to conceal any explicit financial expenditures so as not to disturb the relationship dynamic. He explains, “So, we would pay for some things and kind of keep it away from them.” Like Katie, instead of paying regular money, they turn to other forms of support to sustain their parents’ well-being without their explicit permission. But in Clark’s case, because the use of money in the actions they perform (like housework) is not apparent to his parents, they are more accepting of this kind of behavior. His gift is seemingly untainted by economics and was viewed more as a labor of love. Moreover, by providing direct services to his parents, many of which he had done as a child and young adult around the house, it allow his parents to remain parents. Further still, he remains similar to them socioeconomically—at least in their view—because of the continuity that his actions had throughout his life. His lack of explicit financial overtures allows him to preserve the family relationships which is why he does not endure as many struggles as Katie did. However, it means that he could not boost them economically in as direct a way as would be possible with a check.

Families’ seemingly negative interpretations of graduates’ educational mobility also means that graduates have trouble communicating advice to their families, even when family request it. Claire, who has “all sorts of certificates in conflict analysis and resolution,” is well-positioned to help her family members when it comes to working with others in professional settings. Her family knows this and calls upon her when they have these needs. Once, her brother called her to help him navigate a work conflict—“I know you’re smart... you going to school... you have this information,”— but after listening to the story and “processing through it with him,” she said “maybe you could have done something or changed something... you might be

wrong,” which caused him to hang up the phone call. Several things happened here: despite him calling her because she had gained these skills in college, Claire’s desire to prioritize what she learned in school over loyalty to her brother is not acceptable to him. What is more, Claire explains that this happens often, her brothers call on her because of her education, “like maybe there’s value sometimes,” but they “don’t like this education business” when she disagrees with them. When this happens, they view her advice more negatively. Because she has a college education, and they do not, means they have to wrestle with their own achievements and the judgements that her achievements implicitly offer over their situations—by telling them they could make or have made different choices it likely triggers a feeling of judgement from Claire, despite her best intentions to help her brothers. Claire, however, troops on and continues to provide this kind of advice despite the tension rising within her family. Like Paul, she feels she can maintain these relationships despite these difficulties; she values giving support in her way over the maintenance and health of family relationships.

Other graduates retreat from giving advice altogether, in order to maintain the peace (e.g., Hannah not communicating with her father about his sexist remarks) or find that they lose touch with their family members, at least temporarily. Like Claire, Julia’s brothers also “weaponizes” her degree when she disagrees with their actions; they would say things like, “oh, it must be so easy for you, you’re in your White Golden tower and you can really make a lot of judgments from way up there,” indicating that they interpret her actions as coming from a different place, one that is not as well respected because she has a college degree. If she did not have a degree, they may accept her disagreement more willingly as they would view her as coming from a place more similar to their own. Instead, the resentment within her family means she feels she had to cut ties with one brother for a period of time. Nancy also lost touch with her sister because of

how her sister perceived this educational inequality; she explains that her sister “just decided I was, you know, a college graduate and she wasn’t. And that hurt her, I think, in some manner.” In an emotional phone call, her sister told her, “You think you’re smarter than everybody else.” And though she and her sister eventually moved passed this, Nancy says “that [it] was a real issue for a little while.” This phone call caused Nancy to adjust her own communication with her family so that she could maintain her relationships—she has to be sure that she does not come off as “smarter than everybody else,” which often means keeping helpful advice to herself.

Graduates worry about these kinds of tensions arising within their families and how they are perceived by their family members. Julia worries that her actions make her look “snobby or judgmental,” something she actively tries to avoid. Paige also worries that her parents feel like she is ashamed of them. After an incident where she quickly ushered her father out of a customer-filled thrift store because he rejected her suggestion that they eat at a Chinese restaurant by “very loudly” saying “No, I want White people food!” her parents’ reactions to this and other incidents have led her to question herself. “So maybe they feel like I’m embarrassed about—maybe a little bit more ashamed [of them] [choking up]. But I don’t think I am, so much, but maybe I do act that way. ... Maybe it has affected the relationship in that regard.” She, like many others, worry that her interpretations of family members’ actions and behaviors could poison her family relationships and so she tries not to do things that could further harm these bonds. They value their familial relationships so much that they are willing to pay the price of support to avoid these perceptions.

Finding Fulfillment Outside Family

Another reason that we may not see graduates supporting family as much is because they turn to support other people who choose to live like them—first-generation college graduates.

Many find fulfillment in “paying it forward” to other first-generation college graduates. Some find it particularly fulfilling when they compare this to spending bandwidth on family members who are uninterested in their help. If they cannot help their parents and other family members effectively, maybe they can help willing and interested first-generation graduates (e.g., siblings or mentees) instead. They seem to consider this a way in which the capital they gained in college can be leveraged in service of others, without being perceived as abrasive. As examples, several graduates remain involved in the education system, where their experience and relevant knowledge helps current students navigate that same educational path. There they can “pay it forward” in a fulfilling and gratifying way, without the tensions that complicate such exchanges with family members who are not college-bound. For instance, Katie finds mentees more accepting of help than her extended family:

My mom’s family is huge, and she has tons of sisters and most of my cousins were younger than me and so I’ve definitely tried to weigh in where I can. But there’s always the boundaries of like how much help do people want to accept. ... So, I think because I’ve mentored so many college students it’s like I get a lot of fulfillment out of that, you know, and helping them and watching them be successful. There are certain students I can think of where, when they graduated, it was probably as fulfilling to me as when I did ‘because you just are so invested and you, you know they can do it, and you know what they have overcome. And it’s the best feeling. [laughter].

In Katie’s case, the “best feeling” comes from helping her mentees become successful, an experience that she says helps fulfill her desire to give back; this parallels findings in experimental studies about how first-generation graduates can address their feelings of achievement guilt by thinking of kin they have helped (Covarrubias & Fryberg, 2015; Jury et al., 2017), though here we see this benefit from helping people outside the family. In the face of family tension, it becomes more fulfilling to help others who are more like themselves and with whom there are not complex clashes between responsibilities, family loyalties, silent judgments, and evolving values to navigate. Moreover, graduates feel fulfilled because they are facilitating

others' others' upward mobility; successful implementation of this advice and support means they get to witness the upward mobility of other another person.

Discussion

This study illuminates how first-generation graduates support and are supported by their immediate family members. Most graduates receive support from their families in their college-going and over half provide some sort of support to their families post-graduation. This includes staying in touch, as well as providing financial support (directly and in kind), caregiving, navigational support, emotional support, and college-related advice and support. Their motivations for offering support—showing up, giving back, or paying forward—show the different ways that individuals find meaning in their support-giving. For some, showing up is a part of being a family, “it’s just what you do,” and relying on each other is an important facet of the interconnectedness of family. For others, reciprocity to their families matters; this falls in line with research on intergenerational support (Schwarz, Trommsdorff, Albert, & Mayer, 2005) and *family achievement guilt* (Covarrubias & Fryberg, 2015; Covarrubias et al., 2014). Though, while their gifts allow them to alleviate their guilt, these graduates also understand and honor the sacrifices their parents and other family members made to help them attain their college degree. Because of these sacrifices, they want to return the favor to family now and try to extend the benefits of their degrees to others who helped them along the way. One specific way that graduates engage in this benefit-extension is by helping others in their own educational attainment (e.g., paying it forward)—in this way, graduates could facilitate mobility in others with less tension.

These findings shed light on why graduates may both value providing support to their families (Bui, 2002; Gofen, 2009) and not follow through with it in the form of financial support

(Chapter 2). That many who want to support families find it difficult to do so tells us there is an added layer of tension in providing intergenerational support in the context of upward mobility. In this context, graduates find that the changes in themselves because of their college-going also create obstacles to support that add to the ones that Desmond (2017) points out. Desmond (2017) shows that evictees avoid requesting help from vertical ties because they feel judged by their kin in higher socioeconomic statuses; instead of the tension coming from economic inequality, the tension in first-generation families appears to stem from the changes in graduates' behaviors or the perceptions that graduates and families have about each other's behaviors. This has more to do with the graduates' changing habitus—their worldview and values (Bourdieu, 1986)—than how much money they have in their bank accounts. Indeed, the exceptions further underscore this point, as those who do not have drastic changes in their habitus do not discuss these tensions within their families. What is more, we see that those that are upwardly mobile also feel judged by kin. From their side, graduates want to support kin but find that the tension within their families is too great to overcome. One might expect that having come from the same background and habitus may mean that support is less tense between family members, but in fact it appears to provoke tension. This is particularly pronounced for graduates who come from families that encourage them to go to college but fear them getting a “big head” or becoming “uppity.” First-generation graduates end up in this conundrum because college affords them the ability to provide more support, literally, but they find it difficult because of their family's perceptions of or reactions to this new ability.

With these provisions, graduates tend to want to provide support that will support their family's mobility—such as financial, educational, or professional advice. However, the mobility that their college education provides becomes a double-edged sword: they are both more able to

provide support because of their increased capital and less able to provide support because of the resultant family dynamics. Their upward mobility changes the meaning of this money and advice, such that kin feel insecure or judged. Because monetary compensation (as opposed to other forms of support) does not fit the expected intimacy of family ties, it violates family norms (Zelizer, 2016). Further, these monetary actions represent an inequality in power or the reversal of familial roles that are threatening and patronizing to kin in comparison to supports that show more continuity across the lifespan of the graduate (e.g., think of Katie introducing money into her exchanges with her father as opposed to Clark continuing to do maintenance work around the house). We see this tension most clearly when graduates try to provide these mobility-inducing supports, though many do not even attempt to provide such supports because they know the tension that would follow. In response, graduates alter their intended provisions to those that are less mobility-inducing but also less corrosive, such as emotional support or care work. These alterations allow them to preserve their family relationships, which are important to them.

Yet despite not providing as much financial support or inducing upward mobility, these findings show that the support graduates provide is still important for their kin. First, graduates may be preventing downward mobility of their family members. By providing support in emergencies, as Noi does, graduates may help buffer kin in times of need. Kin can avoid having to spend down their savings or go into debt during these times. Likewise, providing ongoing household or care work could mean that kin can avoid hiring others to do this work. This underscores previous findings that access to individuals with capital does not necessarily influence one's own socioeconomic outcomes (Curley, 2009) as graduates did not engage in regular transfers or counsel that would translate into substantively different lifestyles. However, preventing this downward mobility is critical, especially since there is a notable amount of

downward mobility in the middle 60% of earners (Chetty et al., 2016; Levine, 2013). Graduates may not lift their family members to their socioeconomic level, but they may engage in much-needed support that allows family members not to fall down economically.

Moreover, support can also fulfill needs in psychological well-being. By preserving relationships, graduates are able to continue engaging in social support with their family members, which is beneficial for long-term health and well-being (Cohen, 2004; Cohen & Wills, 1985). Moreover, the choices in how to spend money to support their families were sometimes made to boost family members happiness—think of Julia giving her mother respite with a surprise vacation. In Julia’s case, the feelings associated with this support were just as important as the money Julia spent on it. She knew that she could not boost her family’s economic well-being, but she saw the need and ability for her to provide experiences and joy. Because of this, it is crucial that we look beyond the economic exchanges we tend to examine. By looking beyond financial support for “living expenses” (Chapter 2), this research shows that these financial transfers may be characterized differently within families—as “fun” or a “surprise” or a “gift”—and could serve to benefit both the graduate and their family members, emotionally, despite not boosting their outcomes economically. More importantly, these exchanges may be just as important to individuals as the ones that researchers identify even though they may not result in income or wealth changes for those that receive the support.

Finally, graduates may provide mobility boosts to other first-generation students following in their paths. This may fulfill their desire to use their newly acquired skills, knowledge, and habitus in service of others’ mobility. Knowing that others appreciate and value their resources may also ease the frustration they feel when their family members scoff at the changes in them or perceive them to be “uppity.” Indeed, over the past few years universities

across the country have been encouraging alumni to formally engage in this process and mentor their students (for example, see Freeling, 2018; Zinshteyn, 2016). While this may be beneficial for first-generation college students currently in college, and college administrators who need support, it may further isolate graduates from their families (and divert their resources away from kin) if graduates trade their more tension-riddled interactions for those that are easier. In a society that is already educationally and economically segregated (Petrin et al., 2014; S. F. Reardon & Bischoff, 2011) increasing divergence like this could mean further segregation between those that are college educated and those that are not.

This research is important because we know very little about the impact that first-generation college graduates' higher education attainment may have on their natal families. First-generation graduates have reported they want to be able to support their family members (Bui, 2002; Gofen, 2007), and indeed we see these motivations here. In this analysis, we see that upward mobility affects their ability to make good on these goals. The conclusion here is mixed, first-generation graduates value both their ability to provide support to their families and their family relationships—a duality which causes tension within individuals as they engage with their families. Because their upward mobility may cause friction within their relationships, they have to navigate these relationships carefully so as not to poison them with unwanted supports that appear judgmental.

Findings here also suggest that we cannot look at just the support people give and receive, otherwise we may come to the less nuanced conclusion that first-generation graduates support their family members at similar rates to other graduates (Chapter 2). Instead, we must look at the relationships surrounding these exchanges to fully understand the impacts that higher education has across whole families. These relationships are affected by the upward mobility of

the graduate, meaning graduates are less able to provide mobility-inducing support to their families and turn to other kinds of supports that are just as important but also preserve the relationships. Here, the measurement of support matters—by not including these other kinds of instrumental supports, quantitative research misses the key ways that individuals may benefit their families (e.g., preventing downward mobility, through gifts or care work, or boosting their psychological well-being).

Indeed, when we take these family relationships into consideration, we also see that first-generation parents may be willing to provide more to their adult children in this context to preserve the role and power within the relationships. This may explain why first- and continuing-generation parents give at similar rates despite first-generation parents having more limited means to draw from (Chapter 2). This shows another way that mobility is impacted—here graduates receive a further boost from their parents at the same time that graduates attempts to return this favor are fended off by parents themselves. By expanding the research to investigate the intergenerational support practices of first-generation college graduates, we see that this added tension related to graduates' upward mobility can have lasting impacts on families.

In essence, the effect of higher education's capital on family mobility is mediated through and moderated by family relationships. On the one hand, educational mobility may add tension to family dynamics making it difficult for first-generation graduates to engage in support. On the other hand, if graduates are able to navigate the tricky dynamics associated with their upward mobility, they can have positive influences on their families' outcomes by supporting their upward mobility, preventing their downward mobility, or enhancing their psychological well-being. If they cannot overcome these tensions, graduates may feel frustrated or as if they missed opportunities to support their families despite their best intentions. If we ignore these family

dynamics, we do not fully understand why the flows of support within first-generation families look the way they do. And without that understanding, we cannot fully calculate the effects of higher education on individuals and families. Researchers could build on this research to investigate the potential for these family dynamics to affect first-generation graduates' emotional and economic well-being. In addition, these family dynamics could be used to quantify the effects education may have across whole families; by including family dynamics as mediators or moderators we may be able to better distinguish which families are able to fully benefit from one individual's educational attainment and which are not. This could be useful for administrators as they support first-generation college graduates to interact with their families in this new upwardly mobile context. Preparing graduates to engage with their families in the best way possible, just like they prepare undergraduates to engage in the professional world, would likely help graduates move forward successfully as well.

Limitations and Future Directions

As with any study, there are limitations to this one. One limitation to this study is that it examines a majority White sample. White Americans have been shown to be more individualistic whereas Americans in racialized minority groups tend to be more collectivistic or familistic (Vallejo & Lee, 2009), which would suggest that they may be more likely to provide support to others in the family. Further, as familism is more likely part of the value system of non-White families, it may be less likely that these tensions would arise or inhibit support exchange. Still, at least in this majority White sample, a specific tension emerges between families as the first-generation graduate enters, moves through, and finishes college and attempts to provide support to their kin. Future research should examine these relationships in diverse populations of graduates to whether this tension would also emerge in a more diverse sample.

Another limitation is that I may have gained access to those who retained a positive association with their university or related organizations, those who remain connected to their institution, or those who are prosocial in general (Abraham, Presser, & Helms, 2009; Tourangeau, Groves, & Redline, 2010). This could mean that the findings are not generalizable to all first-generation graduates—other graduates may not identify as strongly with college as a transformational college experience and thus not be as interested in using their college-related capital to support others. However, this highly connected group may represent the most successful outcome for first-generation graduates (i.e., those who retain a connection with their university may do so because they were successful in gaining employment or higher income or feel that their experience in college was worthwhile in helping them attain their goals); therefore, their experiences likely represented a “best-case scenario.” The goal was to sample these best cases, so that we may learn how successful graduates may cash in on the benefits of higher education for themselves and their families and where difficulties remain. However, because they may be more successful, or may have acculturated further into the college-educated group, they may face more tension within their families. This tension may be different or less severe in less connected first-generation college graduate populations as they may be less alienated from their kin. Indeed, trends in this data showed that those who felt college was less life-altering also had fewer tensions within their families. Future research should investigate this phenomenon in populations of first-generation graduates who may not identify as strongly with their alma mater who change less in their college experience.

In addition, this study is limited in that it accounts only for the experience of first-generation college graduates and does not compare their experience to continuing-generation graduates. It may be that first-generation graduates’ experiences are not unique. Continuing-

generation graduates may also find that their college experience—merely by being different from their parents’—also causes similar rifts within families. For example, attending a more or less selective institution may impact one’s habitus and cause similar friction within families in light of upward or downward mobility. However, I chose to interview only first-generation graduates in order to characterize their experience within their families given their distinct upward educational mobility. And given the results that show that first-generation graduates who remain more similar to their families do not discuss these tensions as often, it appears that this tension-inducing process may hold true if future research were to compare first- and continuing-generation graduates’ post-college experiences as continuing-generation graduates are probably less likely to change in ways that separate them from their families. Given these limitations, this study is limited in identifying causality; the process identified here may be present in other populations and I cannot be confident that this is related to first-generation status per se.

Given my background—as a White woman, first-generation college graduate, and student currently in graduate school—I thought critically throughout the process about potential bias that could enter the research process through interviews and analysis. To some extent, I drew from my personal experience as well as the literature as I created my research questions and developed hypotheses. Having spent my time growing up with parents who did not have college degrees and then attending a prestigious college, where I befriended both first- and continuing-generation college graduates, I saw some limits to the current literature investigating family relationships in this context that aligned with the literature. In the interview process, I shared some of my experiences with participants in an effort to create a space in which they felt they could share openly. Given that interviews were almost two hours long (on average), I believe this facilitated the conversation. However, as I did not want my personal experiences to guide the focus of the

interview, I followed the participants' lead so as not to coerce them to draw conclusions they would not have drawn on their own. When participants were different in age, gender, or profession from me, I drew on my naivete about their personal experiences to ask further questions and gather more information. In the coding process, my background could have influenced my interpretation of the data. To combat this potential bias, I reviewed analytic themes with an outside researcher and shared my findings at department gatherings where I received further feedback from other colleagues; I also engaged in reflexivity about my personal background and engagement with the research process throughout the coding process. Although having a sole researcher and coder is not unheard of in qualitative research, having a second coder code a subset of the data in future iterations of this study may increase reliability and validity in the coding process (J. L. Campbell et al., 2013).

Conclusion

Despite graduates' best intentions, their upward mobility may inhibit their ability to provide the support that they are so motivated to give. Education, thus, may not be "a rising tide that lifts all boats" within one family; instead, it appears that the first-generation college graduate rises alone, finding that the tension between them and their family members causes them to trade more mobility-inducing for those that are less so. Although many seek to repay the support their parents provided them, their desires sit in the new context where they have college degrees and are or are viewed differently by their families. Because they value their familial relationships, they seek to preserve them at the cost of these mobility-inducing behaviors. Still helpful, but maybe not as fulfilling, graduates turn to providing a much-needed safety net for their families by supporting their families in times of need or with ongoing emotional or care work. Graduates also invest in other first-generation students as a way to find the fulfilment that may be missing

in their family interactions that are corroded by educational inequality; there they can use their college-related capital to facilitate others' mobility with more ease and may spread the impacts of higher education to others in their network broadly. By looking at whole families, this study provides a nuanced understanding of educational attainment and mechanisms that influence whether and how one individual's college going can facilitate changes in others. Without looking at graduates' family relationships, we would miss the dueling aspects of their experience and the ways that they compensate for the tension caused by educational inequality in order to try to attain the best outcomes for their kin and maintain positive relationships with them.

Chapter 3 Tables

Table 10. First-Generation Graduate Sample Demographic Information

	N (%)
Institution	
UW-Whitewater	13 (30%)
UW-Milwaukee	11 (26%)
UW-Platteville	10 (23%)
UW-Parkside	9 (21%)
Highest Degree	
Bachelor's	18 (42%)
Master's	18 (42%)
Doctorate (Ph.D., J.D., Ed.D., D.N.P.)	7 (16%)
Graduation Years (Bachelor's)	
2000 or earlier	Median = 1993 25 (58%)
2001 or later	18 (42%)
Age	
	Mean = 49
Gender	
Men	13
Women	30
Race/Ethnicity	
White/Caucasian	39 (90%)
Asian	1 (2.5%)
Hispanic/Latino	1 (2.5%)
Not disclosed	2 (5%)
NCES Locale Characterization	
City or Suburb	23
Rural or Town	20
Marital Status	
Married	31 (72%)
Living with Romantic Partner	5 (12%)
Single	7 (16%)
Graduate Status of Partners	
College graduates	31 (82%)
First-generation grads	17 (53%)
Continuing-generation grads	14 (39%)
Not college graduate	5 (14%)

Ever had Children	25 (56%)
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Notes. Not all % add up to 100% due to rounding.

Table 11. Types of Intergenerational Support First-Generation Graduates Provided

Type of Support	No. grads ^a	Examples of this support type
<i>Connection to Family</i>	23	Staying in contact, spending time together regularly
<i>Financial Support – Direct cash transfers</i>	14	Sending checks, cash, direct deposits, or gift cards as a one-time or regularly occurring gifts
<i>Financial Support – In-kind or other purchases</i>	16	Paying for items or services directly like medical or electric bills, flights or vacations, moving expenses, tuition or books, mortgage payments, missionary trips, life insurance policies, groceries
<i>Emotional Support or Discussions</i>	8	Listening, helping people process difficult events, being supportive of decisions and accomplishments, showing up for others' important event
<i>Care work or actions</i>	18	Helping people move, preparing meals or baked goods, living with or caring for sick relatives, visiting people in the hospital, making funeral arrangements, driving family members to appointments, home maintenance or repair, babysitting, raising family members' children
<i>Navigational or management assistance</i>	15	Organizing another person's finances, giving someone financial advice, filing taxes for people, helping navigating loan processes, insurance, benefits, bills, or wills for others, locating apartments or picking retirement homes for someone, giving health advice, advising on work-related or family-related issues
<i>College-related advice or assistance</i>	24	Giving advice on where to go to college, helping navigate financial aid and loans processes, helping with the application or enrollment processes, and providing housing or financial support during college

Notes. ^a Number of graduates reporting particular types of support in interviews. As this was not a quantitative question in the interviews, these instances and types of support were given spontaneously by graduates. Thus, these are minimums (other graduates could provide these same kinds of supports but not talk about them in interviews).

Chapter 4

General Conclusion

This research looks deeper into the relationships between first-generation college graduates and their family members to provide insights into our understanding of mobility. In a country where upward mobility is not often the case (Haskins, 2008), first-generation graduates are exemplars of this mobility—they go to and graduate from college, which propels them into a higher socioeconomic status. However, as we see in Chapter 2, college education may not equalize outcomes for first- and continuing-generation graduates in terms of their post-college income and accumulation of wealth. This disparity matters for their intergenerational mobility. What is more, we see that first-generation college graduates are embedded in tighter-knit families; they are emotionally, physically, and financially close. This closeness could also matter for their personal mobility and their opportunities to extend the benefits of their education to their families. Previous research shows that, during college, these individuals are embedded within family systems of interconnected members from which they gain support and to which they give support (Bryan & Simmons, 2009; Hartig & Steigerwald, 2007; London, 1989) and findings from Chapter 3 extend these conclusions after college. By drawing on both quantitative and qualitative research to investigate the complex social relationships of first-generation college graduates, this research shows just how important family relationships are to first-generation graduates—indeed, it is not merely their closeness that matters, it is that they are willing to sacrifice their own mobility efforts to facilitate the mobility of family. But what is also important is that they quickly adjust their support—sacrificing these mobility-inducing provisions—to maintain relationships in the face of tension.

Review and Integration of the Findings

Quantitative findings in Chapter 2 show that first- and continuing-generation graduates are different in their background characteristics (e.g., race/ethnicity, family economic background) and their post-college experiences (e.g., post-graduate education, income, wealth accumulation, family formation). From a human capital perspective, these trends show the varied outcomes of those with college degrees and how college may not equalize outcomes between first- and continuing-generation graduates. In terms of mobility, first-generation graduates do appear to benefit from college as they are upwardly mobile in comparison to their own parents, but the advantages of education are limited in comparison to their continuing-generation peers.

In their relationships with their parents after college, when controlling for other background characteristics, first- and continuing-generation graduates also differ. Results show that first-generation graduates are just as likely as their continuing-generation peers to feel emotionally close to and receive financial support from their parents; however, first-generation graduates are more likely to live nearer to their parents, after including all controls. They are also more likely to give financial support to their parents, though this is accounted for by their parents' higher levels of financial need. These findings suggest that first-generation graduates engage in more wide-ranging support than their peers, particularly when they have come from lower incomes. These family relationships are potential mechanisms through which first-generation college graduates may affect their families. Further, engaging in these kinds of in kind and financial support have potential to further impact their own outcomes related to higher education, as they may be providing support for their parents (e.g., time or money) instead of boosting their own income of professional career.

The qualitative study in Chapter 3 explores these trends further and gives depth to our understanding of these first-generation college graduate immediate families, including the support that graduates receive from their family members to get to and through college, and graduates' provision of support to their family members after college. Despite their families having few resources to do so, graduates attribute their success to their families' provisions that got them to where they are today. This, in turn, influences their desire to invest in their families now that they have the means to do so. These motivations to give back, show up, and pay it forward go beyond our current understanding of why first-generation college graduates want to support others given their own potentially limited means.

We also get a more granular picture of the kinds of support graduates provide to their natal families through financial support, such as direct cash transfers, or in-kind support, care work, emotional support, or help with institutional navigation. What is more, in this qualitative study, the percentage of graduates that are engaging in direct financial support (about a third) is higher than in the quantitative study, which showed an average of 25% of first-generation graduates nationally provide financial support. Including all types of support increases this to about half of graduates in the qualitative study. The openness of the question (e.g., asking about all types of support to any family members throughout the lifespan, rather than just financial support to parents in the last year) may account for this higher percentage. Moreover, we can better understand the kinds of support that matter to graduates because "support" was not defined for graduates. Therefore, we can assume that these spontaneous examples are what graduates themselves feel are most instrumental or top-of-mind in their families. Since these types of "supports" were more varied than we see in quantitative research, we should also consider how quantitative research may fail to capture the breadth of support individuals receive from and

provide to their families. Without having a fuller accounting of the various supports given and received within families, we cannot fully understand the impacts that these different kinds of provisions may have within families.

For example, graduates did not consider all types of support to be the same, nor do all types of support share the same meaning for them and within their families. For one, mobility-inducing supports appeared to be graduates' preferred type, but because these are most tension-filled, graduates are willing to sacrifice them. In other words, the motivations to show up for family or give back to family are limited by the meaning of support in this context of mobility. As graduates finish college and move into a different socioeconomic status from that of their kin, the changes in their beliefs and lifestyle could complicate their relationships with family members. Negative perceptions between graduates and their families alter the meaning of support in families; though the educational inequality and the perceptions stemming from it cause their own tension, it appears that mobility-inducing support magnify tension because these are perceived by others as the graduate looking down on their family members or making judgements about them. But by trading the more caustic mobility-inducing supports for forms of support that were not focused on inducing mobility (e.g., emotional support or care work), they can preserve their relationships.

Relationships are key for graduates here—after all, they are often close to their natal families and feel indebted to them. Indeed, family relationships are so important to them that they will silence parts of themselves, limit their financial support, or give up doling out advice in order to maintain them. This could account for why graduates are as emotionally close to their parents after college as their continuing-generation peers; in an alternate reality, where graduates do not alter their behaviors to quell negative family dynamics, their relationships may not be so

close. Preserving relationships also have another benefit for individuals and families, it means that graduates can still provide important resources for family. They can, with more ease, provide supports that did not highlight their college-education (and that were also less mobility-inducing). Instead of focusing on money, these actions are more focused on maintaining their family's current socioeconomic status or boosting their psychological well-being. Being aware of these family tensions and attempting to navigate them meant they could provide these alternative kinds of supports that are more acceptable to family members. This could have important implications for families.

From an individual perspective, we see the potential for higher education to have mobility impacts for individuals and ways that family relationships may matter for these impacts. While post-secondary education may facilitate the upward mobility of individual graduates compared to their parents, these graduates are still disadvantaged when compared to their continuing-generation peers. What is more, the further demands of their parents and kin on their financial resources and time could have negative outcomes for their accumulation of wealth and professional development. And those coming from more disadvantaged backgrounds are the ones that are supporting their families, so we should be particularly aware of this population and what is expected of them from their family. This group often has higher need, and so do their families. This could mean that while higher education provides some mobility for low-income first-generation college graduates, they are also weighed down by their family members' needs. The resulting upward mobility may be stalled in part by the inequality of outcomes between first and continuing-generation graduates and also by the higher levels of family demands on first-generation college graduates in comparison to continuing-generation graduates.

On the family side, we see ways that graduates' higher education may boost outcomes for kin but that family relationships matter for these impacts as well. By being close emotionally and physically, or providing financial or other instrumental supports, graduates may support their families. Yet their desire to provide mobility-inducing support is impacted by the meaning families attribute to the graduates' experience and gestures and vice versa. What is done is impacted by how it is viewed. Instead, graduates' willingness to trade mobility-inducing supports for these other supports shows just how important the maintenance of these relationships is to them. These family relationships become what matter, and support happens in ways that account for these relationship dynamics.

The main implication here is that we limit our understanding of mobility if we view individual impacts in isolation. By analyzing family relationships, as these studies do here, we find that the effects of higher education are mediated through or moderated by these family relationships. In this way, the relational context in which support is given and received can shape its meaning and, thus, its provision. This could explain why, in the quantitative data, we see that graduates are not providing more financial support to parents than continuing-generation graduates (except if parents have higher levels of need). Generally, giving money to family is not as easy graduates would prefer, since this support is perceived through a lens of upward mobility. Indeed, this may also explain why first-generation graduates receive support from their parents at similar rates to their continuing-generation peers in the quantitative data; parents of first-generation graduates may continue to provide financial support to their children because money flows in this direction are more natural to them or because they are supporting success stories in their children (see also Fingerman et al., 2009). They may do this despite being less likely to have the means to do so comfortably.

Finally, graduates also facilitate others' mobility by supporting people in their educational journeys. Here we see that the tension-riddled meaning of support within their own families may turn people away from familial support, instead graduates may find other like-minded students to support with their money or mentorship. The ease of supporting other first-generation students outside the natal family contrasts sharply with the difficulties that graduates faced in supporting their own families. In these relationships, graduates do not have to trade mobility-inducing supports since their audience is ready and willing to accept their help. By doing this, graduates are able to witness other college-goers engage in the same process they did and propel themselves forward to a more advantageous socioeconomic position. Not only is this beneficial for those receive support, it is fulfilling to be part of someone's success.

One question that remains unanswered is what would happen when the meaning of money does not change in the context of upward mobility. And, if this is possible, for what group would this be the case? One potential group may include graduates who go to college but remain ideologically similar to their parents. Another could include graduates whose families change along with them, meaning that as the graduate changes ideologically so does the family. The similarities between graduates and their families may override any potential tension between them that might occur because of graduates' upward mobility. Finally, another may include groups for which familism is a high value. In familism, individual attainments may be considered familial achievements as well, and so there may be less tension related to upward mobility. Further research could illuminate the ways in which these groups operate in the context of upward mobility and provide best practices for other graduates who may feel the tensions described in this dissertation.

Implications for Research and Practice

Given these findings, there are several implications for higher education research and practice. For instance, in order to more fully understand the effects of higher education on first-generation college graduates, researchers could investigate how family relationships may mediate or moderate the relationship between first-generation college graduates' educational attainment and socioeconomic outcomes. Does graduates' provision of support impact their professional growth or wealth accumulation? Whether and how family relationships may affect individual outcomes tells us more about the disproportionate effect higher education may have on different groups of graduates. In addition, understanding the effects of these kinds of supports on the outcomes of other people in the family would also further clarify how higher education may have ripple effects across the family.

Moreover, understanding the impacts different kinds of supports have may also matter. As graduates appear to sacrifice mobility-inducing supports (e.g., financial support) for those that are less mobility-enhancing (e.g., emotional support or time), we need to investigate what these mean for individual and family outcomes. For instance, giving financial support may affect wealth accumulation but giving time and care work may affect professional outcomes or family formation. Additionally, this could tell us more about what the feeling of these relationships means for outcomes. Since graduates appear to prefer mobility-inducing supports and find them more fulfilling, it is important that we understand how this trade-off matters for both individuals and families. On one hand, if graduates are negatively impacted by the gifts they give family, and at the same time feel that they could have done more or that their gifts fall short of the benefits they intended, the tension within individuals and families may be further amplified. On the other hand, if graduates' preservation of relationships is of highest importance it may be that

these potential negative effects are not considerations that we need to investigate. They may care most about the quality of their relationships rather than the family's interest in or use of their resources. Further still, they may define their success in their ability to keep their families afloat rather than in amassing wealth or climbing the professional ladder. This would mean that research in this area is missing the importance of family relationships when they consider only individual effects.

From this research, there are also implications about the societal segregation between those who are college educated and those who are not (Cramer, 2016; Petrin et al., 2014; Sean F Reardon & Bischoff, 2011). As graduates appear to become distant from their families through their college experience—finding it hard to communicate, live near, and support their family members—this could have effects across whole communities. Although they may live close to their family members, they may be in a culturally different area (e.g., a large city as opposed to a suburb; a suburb as opposed to a rural area). We already see that communities are divided up along economic and educational lines (S. F. Reardon & Bischoff, 2011; South et al., 2016), that people with higher incomes spend more time with those who are similar to them (as compared to people from lower income; Bianchi & Vohs, 2016), and that few venture out of their ideological bubbles regularly (Eady, Nagler, Guess, Zilinsky, & Tucker, 2019). Given that first-generation graduates are a unique group with access to people from multiple economic, educational, residential, and political groups, they could bridge important gaps. But because they silence themselves in order to preserve peace within their families, instead this trend may continue and increase segregation in communities. It would be important to consider the potential costs this process could have for society.

One limitation in the current research is that it does not consider the family cultural practices (individualism vs. familism; Silverstein, 2006; Swartz, 2009) or the roles and identities people play within families (e.g., parents vs. children, oldest sibling vs. youngest siblings) and how these practices may impact provision of support within families and the meaning ascribed to such support. These may have important implications for how upward mobility is viewed and thus whether and how supports would impact relationships. For instance, in families that favor a more familistic orientation, support may be viewed as positive and wanted and thus graduates who attempt to provide mobility-inducing support may not be turned away. Without tension arising from individual attainment they could more easily extend the benefits of their education to other members of the family. It may be that in families following ideals of individualism, graduates compared their good “choices,” as Julia and Kristin put it, to their siblings’ poorer ones; in contrast, familism may mean that graduates think of their families as a “team” that could provide for one another regardless of their previous choices. Though these research questions were beyond the scope of this dissertation, I would encourage future researchers to consider these aspects of family dynamics in first-generation college graduate families. By understanding how upward mobility affects more familistic-oriented families, we can distinguish whether this added tension is unique to individualistic families or if upward mobility causes tension more broadly. Familism also helps provide another lens through which to investigate family relationships as mediators and moderators.

One consideration is that the story may be different for lower-income first-generation graduates. We see in the quantitative data that coming from a low-income background is a predictor of financial support to their parents, which may be more mobility-inducing, but in the qualitative data we see graduates trading this type of support for other types of supports. It may

be that because the graduates in the qualitative sample grew up shielded from need, generally, their families have less need now. In families where need is more prominent or pervasive, it may be that graduates' upward mobility is viewed differently. This could be due to sociocultural factors or because their parents are in such need that the relationship dynamics are less important than the support being provided. The story of trading mobility-inducing supports in order to benefit familial relationship dynamics may happen more often in middle class families that are in less need of financial support. For graduates from lower-income backgrounds, the economic benefits of higher education may extend more directly to their parents and other family members. Alternatively, as other research on low-income kin supports shows, these interactions may be just as fraught with frustration (Desmond, 2017; Swartz, 2009). Future research should interview first-generation graduates from lower income backgrounds in order to investigate this possibility. If we do not, then we do not fully understand how higher education may facilitate mobility in low-income families.

Similarly, the qualitative research should also be extended into populations that are not white. The quantitative findings showed the diversity of first-generation graduates nationally and differences between these groups in terms of their support of parents, so the qualitative story captured here is limited by its predominantly white sample. The meaning of support within African American, Hispanic or Latino American, or Asian American families may differ from that found here as these families may have a more familistic value system (Fuligni, Tseng, & Lam, 1999; Y.-J. Lee & Isik, 1998; Vallejo & Lee, 2009), which encourages parents, children, and other family members to view the accomplishments of one family member as beneficial for the whole family. This may mean that instead of graduates being viewed as “uppity,” their increased socioeconomic status is enjoyed by all within the family system.

A final consideration is gender. Higher education trends show that more women are enrolling in college and gaining degrees in recent years (National Center for Education Statistics, 2018, 2019; University of Wisconsin System, 2017). Women make up the majority of first-generation college students and graduates (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007). Given that women are expected to do more and engage in more support of other family members (Swartz, 2009), familial relationships in the context of educational attainment is of particular importance for women. It could be that women are more likely to support family members in these various ways and that it is their families that see familial effects of higher education, that they are impacted more individually by giving these supports, or that they are viewed more harshly by their families because of their upward mobility (or all of the above). Further investigation into women's experiences in comparison to men's will help illuminate whether these trends vary by gender within first-generation graduates.

For administrators, these findings point out further aspects of the first-generation college student experience that should be given attention. Though we know that first-generation students report going to college with intentions to support their immediate family (Bui, 2002), we find here that they may face unexpected challenges because they have not been prepared for the ways in which their upward mobility could change their family dynamics. Without some consideration of the unique context into which they are graduating, colleges may not fully prepare their students for the real world. College administrations may be able to better support first-generation graduates in two ways: 1) by recognizing and supporting their desire to live closer to their parents and other kin and 2) by helping them connect with resources to identify and address difficult family dynamics that may arise in the context of their new upward mobility.

There are several pieces of evidence here that suggest graduates may want to live closer to their parents and family members than the average college graduate. First, according to the quantitative data, they are doing this already. Second, the qualitative data shows that their support of family members often turns into support that is easier done in person and, if they live far away, they feel guilt for not being more available. Thus, it is important to consider that first-generation graduates may prioritize living close to family over other professional considerations (see also Parks-Yancy, 2012). In addition, as the percentage of college graduates who move out-of-state after graduation has been declining in recent years (Kelchen & Webber, 2018), so college career counselors need to be sure to support graduates who want to remain close to their families generally. Moreover, this will become even more important as rural students that are increasingly encouraged to attend college by their guidance counselors and high school administrators (Tieken, 2016) attend college since their families may live farther away from jobs that for which their college-degrees are most relevant. Students from urban or suburban areas may be more able to find jobs that are degree-relevant and close to family.

Finally, these findings show that first-generation college graduates may need support to understand and navigate the dynamics within their families. As their graduation introduces added tension and changed meaning into their family relationships, they should sort through the feelings associated with these changes. While this may not be the job of college administrators, helping students connect to programs (e.g., family therapists, mentorship programs) could benefit their psychological well-being or professional outcomes. Talking about money with family is hard because of the values that it represents (Romo, 2011; Wells Fargo, 2014). It may benefit first-generation graduates to learn how to communicate with their families about these tough topics prior to graduation, so that they are not engaging with their families without any

preparation. Most importantly, learning how to engage with their families without coming off as “better than” family members would be an important piece of this puzzle; as much of the tension occurs when graduates’ changes highlight the inequality within families or are perceived as being judgmental, graduates could stave off these problems by learning best practices for navigating these tensions. By helping graduates to identify and manage these relationship dynamics, we may see that they can provide mobility-inducing supports that they are so motivated to do. As of now, their successful navigation of these tensions leads them to turn away from mobility-inducing supports—however, more skilled communication and practice may mean that they can talk more openly with family about what they want to provide and why. With more communication, families may be more open to receiving support and may feel that it is less of a violation of family norms.

Conclusion

Together, this research builds on the current literature about social mobility to provide a more nuanced understanding of how higher education benefits both individuals and their families. From a human capital perspective, we see that post-secondary education may benefit all graduates but may not equalize outcomes across first- and continuing-generation backgrounds. From a family systems perspective, we see that graduates who are the first in their immediate families to attain degrees have close relationships with their parents and are motivated to provide for them and other members of the family. Yet they face an important trade-off as they attempt to provide for their families after they have received their degrees. Ironically, what gives them the ability to provide more support may also impede their ability to do so; gaining more human capital and experiencing upward mobility appears to cause a tension within families that alters the meaning of support in family relationships and ultimately affects the ways that individuals

provide support. These perceptions within family relationships appear to mediate or moderate the support we see between first-generation graduates and their kin and should be considered in future research on higher education and social mobility. In addition, graduates' close residential proximity and provision of financial support, emotional support, and care work can be instrumental for families. This support could facilitate their upward mobility, prevent their downward mobility, or enhance their well-being psychologically. By taking the natal family system into account, we better understand the mechanisms by which higher education may impact individuals and their natal families. Moreover, moving beyond individual outcomes sets the stage for research that could examine the broader implications of higher education for families, communities, and society.

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Appendix A: Recruitment Materials

Email to Forward

Hi there –

I'm Emily Parrott, a PhD student at UW-Madison. I'm conducting a research study on first-generation college graduates and their lives after college (first-generation college graduates are people who finished college but whose parents do not have college degrees).

I'm looking specifically for first-generation college graduates who graduated before 2014 from University of Wisconsin four-year schools.

If you qualify, I would love to interview you! If you would be willing, please e-mail me back or call me at 617-910-6539 and we can schedule a time that works for you. We can do the interview in person, by phone or video. The interview will last 1-2 hours and your identity and responses will be kept confidential. As a thank you for participating, you will receive \$30.

If you know someone else who fits the criteria and might be willing to be interviewed, please forward this to them as well.

If you have any questions about me or my project, feel free to contact me or my advisor, Sarah Halpern-Meekin (sarah.halpernmeekin@wisc.edu).

Best,
Emily

--

Emily M. Parrott
Dissertation Fellow | Institute for Research on Poverty
Doctoral Student | Human Development and Family Studies
School of Human Ecology | University of Wisconsin-Madison
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Newsletter Blurb

Emily Parrott, a PhD student at UW-Madison, is looking for first-generation college graduates to interview for a research study. This study is not related to our alumni association, but if you are one of our graduates from before 2014, whose parents don't have college degrees, she is interested in interviewing you. The interview will last 1-2 hours and alumni will receive \$30 as a thank you for participating.

If you are willing to be interviewed, you can e-mail or call Emily for more details about the research study and set up an interview. Her e-mail is emily.parrott@wisc.edu and her phone

number is 617-910-6539. If you have friends who fit the criteria who might be willing to be interviewed, feel free to send this information to them as well.

Facebook Post

*posted along with flyer

Hi there-- I'm Emily Parrott, a PhD student at UW-Madison. I'm conducting a research study on first-generation college graduates and their lives after college (first-generation college graduates are people who finished college but whose parents do not have college degrees). If you graduated before 2014 from a University of Wisconsin school, I would love to interview you for my research study. If you are willing to be interviewed, please e-mail me at emily.parrott@wisc.edu or call me at 617-910-6539. We can set up the interview in person or by phone or video. If you know someone else who fits the criteria who might be willing to be interviewed, feel free to send this to them. The interview will last 1-2 hours and your identity and responses will be kept confidential. As a thank you, participants will receive \$30.

Linkedin Post

*posted along with flyer

Hi there-- I'm Emily Parrott, a PhD student at UW-Madison. I'm conducting a research study on first-generation college graduates and their lives after college (first-generation college graduates are people who finished college but whose parents do not have college degrees). If you graduated before 2014 from a University of Wisconsin school, I would love to interview you for my research study. If you are willing to be interviewed, please e-mail me at emily.parrott@wisc.edu or call me at 617-910-6539. We can set up the interview in person or by phone or video. If you know someone else who fits the criteria who might be willing to be interviewed, feel free to send this to them. The interview will last 1-2 hours and your identity and responses will be kept confidential. As a thank you, participants will receive \$30.

Twitter Post

*posted along with flyer

If you are one of our first-gen college grads and would be interested in participating in a research study, email emily.parrott@wisc.edu or dm @theemilyparrott

Flyer Image

Are you a first-gen* college grad?

Did you graduate before 2014?

*first-gen means your parents do not have four-year college degrees
or you are the first in your family to get a degree at all.

If so, I'd like to interview you!

Please consider participating in my research study of first-generation college graduates and their lives after college. The interview will last 1-2 hours. Your identity and responses will be kept confidential.

We can do the interview in person, by phone or video.

Participants will receive \$30 as a thank you for participating.

If you are interested in participating, please contact:

Emily Parrott, PhD Student

UW-Madison

emily.parrott@wisc.edu

617-910-6539

Feel free to forward this information to other first-gen grads.

Appendix B: Interview Guide

There are three parts to the interview. Since we want to focus on your life after college, to get there we will talk a little about your life before and during.

To avoid identifying people who have not consented to this research, you can refer to them by using the term representing their relationship to you (e.g. mom/dad, sibling, friend, etc.).

Part I: Life Before College

Tell me a little bit about what things were like for you growing up.

Where did you live? Who did you live with?

Some people tell me their families struggled financially when they were growing up, and others say things were comfortable. What about for you?

Tell me about your decision to apply to college.

What kinds of things did people in your family say about college?

Had people in your family attended college before you? *[ask about parents, siblings, aunts/uncles, cousins]*

What made you want to go?

Walk me through your decision on where to go to college.

Did your family weigh in on your decision at all? What did they say?

What was your thought process for paying for college?

Family connection and support

Sometimes people help their families out with things like managing money, filing taxes, or figuring out how to deal with insurance companies, banks, or schools. Was that ever something you did before you went to college?

Part II: College Experience

What was college like when you first arrived? How was the adjustment to college for you?

Academically, socially, financially?

What did you major in?

What kinds of things did you do while you were on campus?

Sometimes people speed through college while it takes some people a little longer. About how many years did it take you to get your bachelor's degree?

Some people talk about getting exposed to new ideas or learning new skills in college that are different than what they learned while growing up. Did that happen for you?

Tell me about one of those times; can you share an example?

Family connection and support

Did you live with your family while you were in college? If not, about how far away were you?

Are there ways that your relationships with your family members changed while you were in college?

Walk me through one of those changes.

During college, how often were you talking with your family? What did you talk about? Did that change over the course of college?

Did they ever help you out financially? Did you ever help them out financially? Did that change over the course of college?

[If respondent did not indicate helping family with institutional navigation in high school]
While you were enrolled in college, did you ever help your family with things like managing money, filing taxes, or figuring out how to deal with insurance companies, banks, or schools?

[If respondent indicated helping family with institutional navigation in high school] You mentioned helping your family out with _____ before college. Did you continue doing that sort of thing once you were in college? Did you start helping with anything else?

Finances Subsection

Did you learn anything about managing money during your time in college?

How did you learn that? *[ask about friends, professors, financial aid, reading about it]*

How did what you learned in college match what you saw people in your family doing or saying when you were growing up?

I noticed once I was in college that I started to see different ways to live—including how to manage finances and what to eat—and this affected how my family and I interacted. Did anything like that happen for you?

Part III: Life After College

When you think back to graduation day, what do you remember thinking or feeling about finishing college?

Tell me a bit about your life since you graduated from college.

[ask about job, graduate school, relationships, children]

Did you move back home? Or continue living near your parents or with your parents?

Walk me through what a typical day looks like for you.

Finances Subsection

Sometimes people feel like getting a bachelor's degree paid off financially whereas others don't. What does it feel like for you?

Do you feel like you have enough money to pay your bills every month?

Do you feel like you can buy extras above the necessities?

Some people talk about buying things for their parents or siblings, giving them money directly, or helping in other ways, like talking to them about college or giving financial advice. Do you ever do these sorts of things for any of your family members?

Tell me about a time when you did this.

Some people tell me it can be hard for them to help their families in these ways, but other people say it's okay. How do you feel about providing this support?

What do you think things would be like for your family if you didn't provide this support?

How does your experience doing these things for your family compare to other people you know from college? *[ask what these people are like]*

How comfortable do you feel managing your finances? Are there some parts you feel more comfortable with or making decisions about?

Thinking about what your life is like now, what do you think has more influence on you: what you learned while you were growing up or what you learned in college?

Tell me about a way that what you learned while growing up affects your life now.

Tell me about a way that what you learned in college affects your life now.

Do you feel like there is a mismatch between what you learned at home and what your life is like after college? If so, how? And if so, how did that affect you?

Family connection and support

So you were saying earlier that *[whatever participant said about how close they live or feel to their family]*, what does that mean for how often you see or talk to each other now?

[If they do not live near their family members] Walk me through a typical visit home.

[If they talk about parents and siblings only] Are there other family members or close friends from growing up that you see or talk to often?

What kinds of things do you talk about with your family members and close friends from home? *[If they bring up financial]* What do you talk about related to finances?

Does your family help you out now-a-days? For example, do you get advice or support from your family about any relationship problems, issues with kids, or job decisions? Finances?

Are there specific things that you help your family out with now? Are there specific things that people in your family reach out to ask your advice on? For example, do you help anyone in your family with college, like in the application or transition process?

Personal social mobility

What do you think your life would have been like if you hadn't gone to college?

Tell me about some ways that graduating from college changed how people in your family saw you or treated you.

Tell me about some ways that graduating from college changed how you saw or interacted with your family members.

What do you think life would have been like for your family if you hadn't gone to college?

In an alternate universe where you didn't go to college, do you think things would be different for anyone in your family?

Is there anything else I haven't asked about that you think I should know to understand how you graduating from college has influenced you and your family?

At end of interview ask participant to fill out the information sheet.

Appendix C: Information Sheet

INFORMATION SHEET

COLLEGE INFORMATION

Highest degree so far: ☐ Associate's ☐ Bachelor's ☐ Master's
 ☐ JD ☐ PhD ☐ MD ☐ Other _____

Please provide some information about the schools you've attended:

Institution			
Degree (e.g., Bachelor's)			
Major			
Start-End (YYYY-YYYY)			

COLLEGE INFORMATION ABOUT FAMILY

Did either parent attend college at all? ☐ Yes ☐ No
If so, who and for how long? _____

Have any of your siblings gone to college? ☐ Yes ☐ No
If so, when and where did they go? Please fill out the chart below.

Sibling (e.g., sister, cousin)				
Institution				
Degree				
Major				
Degree Attained?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Estimated dates of attendance (YYYY-YYYY)				
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BEFORE COLLEGE

In what town/city did you live before college? _____

How many people usually lived in your household before you started college? _____

Please list the people who usually lived in your household before you started college (e.g., mother, aunt, cousin). _____

JOB INFORMATION

Current occupation: _____

Previous occupation(s): _____

Desired occupation (if different from current): _____

FAMILY INFORMATION

Are both your parents living? ☐ Yes ☐ No

About how long does it take you to travel to your parents' house(s)? _____

About how long does it take to travel to your siblings' houses? _____

RELATIONSHIP INFORMATION

Are you married? ☐ Yes ☐ No

Are you living with a long-term romantic partner? ☐ Yes ☐ No

If yes to either, did your partner graduate from college? ☐ Yes ☐ No

If yes, is your partner a first-gen college graduate? ☐ Yes ☐ No

Do you have children? ☐ Yes ☐ No

If yes, how many children? _____

If yes, how old are they? _____

If yes, how much of the time do they live with you? _____

DEMOGRAPHIC INFORMATION

Your age: _____

Your gender: _____

Your race/ethnicity: _____

Anything else we should know?

Appendix D: Supplemental Tables

Appendix Table 1. Participant identification of mother and father figures, by college generation status (N=4,793)

	Participant Education (Wave 4)				Missing <i>N (%)</i>
	First-generation college graduates (<i>N</i> =1,862)		Continuing- generation college graduates (<i>N</i> =2,931)		
	N	% ^a	N	% ^a	
Mother Figure					0
Biological mother	1,752	94%	2,785	95%	
Adoptive mother	35	2%	84	3%	
Step/adoptive mother	1	<1%	2	<1%	
Step mother	15	<1%	19	<1%	
Foster mother	1	<1%	1	<1%	
Grandmother	41	2%	21	<1%	
Aunt	8	<1%	14	1%	
Sister	4	<1%	3	<1%	
Other female relative	1	<1%	0	0%	
Other female nonrelative	0	0%	0	0%	
Not raised by a mother	4	<1%	2	<1%	
figure					
Father Figure					0
Biological father	1,473	79%	2,551	87%	
Adoptive father	49	3%	97	3%	
Step/adoptive father	19	1%	21	<1%	
Step father	107	6%	120	4%	
Foster father	0	0%	0	0%	
Grandfather	49	3%	25	1%	
Uncle	16	<1%	15	<1%	
Brother	9	<1%	6	<1%	
Other male relative	6	<1%	4	<1%	
Other male nonrelative	14	<1%	5	<1%	
Not raised by a father	120	6%	87	4%	
figure					
<i>Notes.</i> ^a May not total to 100% due to rounding.					

Appendix Table 2. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Emotional Closeness to Mother (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
First- Generation College Status	1.166 (0.109)	1.112 (0.101)	1.141 (0.115)	1.181 (0.113)	1.175 (0.107)	1.134 (0.117)
Age (W4)		1.016 (0.0257)				1.055 (0.0297)
Female		1.188 (0.111)				1.287** (0.121)
Black/African American		1.851*** (0.285)				2.279*** (0.378)
Hispanic/Latino		1.216 (0.193)				1.371 (0.244)
Asian		0.492*** (0.0858)				0.527*** (0.0913)
Other		0.930 (0.231)				1.001 (0.244)

Total	0.908		0.951
Household			
Income (W1)	(0.0797)		(0.0919)
Household	0.761		0.751
Financial Strain			
(W1)	(0.122)		(0.125)
Two-Parent	1.297		1.349*
Household			
(W1)	(0.174)		(0.173)
Rural	1.004		1.004
Percentage			
(W1)	(0.00221)		(0.00221)
Personal		1.004	1.007
Income (W4)		(0.0379)	(0.0419)
Household		0.768	0.816
Debts (W4)		(0.121)	(0.133)
Household		0.940	1.006
Assets (W4)		(0.135)	(0.149)

Some Post-BA Experience (W4)	0.934 (0.140)	0.863 (0.136)
Master's Degree (W4)	0.963 (0.0954)	0.904 (0.0885)
Professional or Doctoral Degree (W4)	0.984 (0.215)	1.044 (0.220)
Currently Enrolled in School (W4)	0.931 (0.116)	0.978 (0.128)
Living with Spouse (W4)	1.305* (0.148)	1.255 (0.145)
Living with Romantic Partner (W4)	1.078 (0.146)	1.105 (0.154)
Living with Mother (W4)	1.057 (0.171)	1.028 (0.166)

Living with Child(ren) (W4)				0.768**		0.698***
				(0.0773)		(0.0721)
High Emotional Closeness to Mother (W1)					3.524***	3.524***
					(0.453)	(0.455)
<hr/>						
/						
cut1	0.00612*** (0.00169)	0.0104*** (0.00760)	0.00281*** (0.00274)	0.00594*** (0.00305)	0.0175*** (0.00541)	0.0717* (0.0922)
cut2	0.0212*** (0.00339)	0.0361*** (0.0251)	0.00977*** (0.00943)	0.0206*** (0.00977)	0.0613*** (0.0128)	0.252 (0.322)
cut3	0.125*** (0.00881)	0.213* (0.152)	0.0577** (0.0549)	0.122*** (0.0547)	0.371*** (0.0484)	1.550 (1.973)
cut4	0.518*** (0.0328)	0.900 (0.653)	0.241 (0.231)	0.509 (0.230)	1.610*** (0.208)	6.967 (8.945)
<hr/>						
N	4462	4460	4457	4462	4461	4457
F	2.73	8.32	3.31	1.46	48.73	9.36
Prob > F	0.00	0.00	0.01	0.15	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 3. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Emotional Closeness to Father (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
First- Generation College Status	0.927 (0.0735)	0.960 (0.0780)	1.061 (0.0937)	0.919 (0.0742)	0.924 (0.0727)	1.031 (0.0941)
Age (W4)		1.001 (0.0212)				1.044 (0.0244)
Female		0.931 (0.0806)				1.046 (0.0904)
Black/African American		0.816 (0.125)				1.272 (0.218)
Hispanic/Latino		0.756 (0.117)				0.864 (0.146)
Asian		0.445*** (0.0828)				0.501*** (0.0926)
Other		0.814 (0.183)				0.965 (0.231)
Total Household Income (W1)			1.153			1.168

	(0.0983)		(0.109)
Household Financial Strain (W1)	0.659*		0.763
	(0.117)		(0.136)
Two-Parent Household (W1)	2.031***		1.584**
	(0.295)		(0.232)
Rural Percentage (W1)	1.006**		1.004
	(0.00192)		(0.00196)
Personal Income (W4)		1.042	1.083*
		(0.0346)	(0.0384)
Household Debts (W4)		0.830	0.858
		(0.102)	(0.105)
Household Assets (W4)		1.097	1.015
		(0.119)	(0.114)
Some Post-BA Experience (W4)		0.972	1.024

	(0.118)	(0.136)
Master's Degree (W4)	0.995	1.000
	(0.0896)	(0.0932)
Professional or Doctoral Degree (W4)	1.348	1.319
	(0.215)	(0.217)
Currently Enrolled in School (W4)	0.931	0.960
	(0.102)	(0.118)
Living with Spouse (W4)	1.401***	1.292*
	(0.138)	(0.131)
Living with Romantic Partner (W4)	1.301*	1.280*
	(0.153)	(0.157)
Living with Father (W4)	1.498*	1.464
	(0.278)	(0.284)
Living with Child(ren) (W4)	0.889	0.927
	(0.0841)	(0.0878)

High Emotional Closeness to Father (W1)					4.045*** (0.465)	3.809*** (0.429)
/						
cut1	0.0172*** (0.00226)	0.0154*** (0.00932)	0.160 (0.148)	0.0319*** (0.0129)	0.0412*** (0.00663)	2.879 (3.620)
cut2	0.0679*** (0.00621)	0.0614*** (0.0371)	0.646 (0.597)	0.126*** (0.0484)	0.176*** (0.0224)	12.63* (16.05)
cut3	0.274*** (0.0168)	0.250* (0.151)	2.686 (2.487)	0.516 (0.197)	0.775* (0.0846)	57.66** (73.63)
cut4	0.906 (0.0504)	0.837 (0.511)	9.217* (8.510)	1.731 (0.668)	2.819*** (0.297)	218.6*** (279.1)
N	4080	4078	4076	4080	4077	4073
F	09.92	3.65	13.57	2.77	76.45	11.82
Prob > F	0.34	0.00	0.00	0.00	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 4. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Residential Proximity to Mother (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
First-Generation College Status	1.656*** (0.144)	1.593*** (0.136)	1.397*** (0.118)	1.648*** (0.139)	1.529*** (0.120)	1.335** (0.117)
Age (W4)		0.956 (0.0256)				0.934* (0.0262)
Female		1.247** (0.0960)				1.242** (0.0962)
Black/African American		1.265 (0.189)				0.985 (0.163)
Hispanic/Latino		1.791** (0.316)				1.352 (0.243)
Asian		1.375 (0.360)				1.008 (0.253)
Other		0.933 (0.198)				0.814 (0.185)
Total Household Income (W1)			0.642*** (0.0481)			0.699*** (0.0599)

Household Financial Strain (W1)	0.846 (0.115)		0.859 (0.118)
Two-Parent Household (W1)	1.235* (0.127)		1.203 (0.134)
Rural Percentage (W1)	0.992*** (0.00219)		0.990*** (0.00222)
Personal Income (W4)		0.933* (0.0287)	0.938* (0.0281)
Household Debts (W4)		0.626*** (0.0830)	0.614*** (0.0832)
Household Assets (W4)		1.066 (0.126)	1.135 (0.133)
Some Post-BA Experience (W4)		0.885 (0.110)	0.867 (0.106)
Master's Degree (W4)		0.820* (0.0793)	0.859 (0.0851)

Professional or Doctoral Degree (W4)	0.620** (0.0914)		0.715* (0.118)
Currently Enrolled in School (W4)	0.841 (0.0945)		0.818 (0.0897)
Living with Spouse (W4)	0.506*** (0.0607)		0.512*** (0.0591)
Living with Romantic Partner (W4)	0.551*** (0.0632)		0.552*** (0.0617)
Living with Child(ren) (W4)	1.816*** (0.164)		1.829*** (0.171)
Percent in Poverty (W1)		1.004 (0.00519)	1.000 (0.00564)
Percent Over Age 25 with Bachelor's (W1)		0.993 (0.00433)	0.991 (0.00484)

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cut1	0.544*** (0.0515)	0.178* (0.139)	0.00378*** (0.00298)	0.167*** (0.0606)	0.453*** (0.0768)	0.000382*** (0.000486)
cut2	1.154 (0.101)	0.380 (0.293)	0.00812*** (0.00643)	0.363** (0.133)	0.965 (0.172)	0.000842*** (0.00106)
cut3	2.643*** (0.220)	0.878 (0.680)	0.0190*** (0.0151)	0.852 (0.307)	2.211*** (0.418)	0.00204*** (0.00259)
cut4	12.68*** (1.586)	4.290 (3.473)	0.0941** (0.0764)	4.313*** (1.642)	10.63*** (2.139)	0.0109*** (0.0140)
<i>N</i>	4462	4460	4457	4462	4462	4457
F	33.67	9.52	20.25	13.41	12.79	11.95
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 5. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Residential Proximity to Father (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
First- Generation College Status	1.678*** (0.154)	1.635*** (0.146)	1.478*** (0.137)	1.667*** (0.147)	1.545*** (0.126)	1.407*** (0.126)
Age (W4)		0.947* (0.0257)				0.934* (0.0257)
Female		1.149 (0.0880)				1.150 (0.0879)
Black/African American		1.121 (0.154)				1.065 (0.173)
Hispanic/Latino		1.862*** (0.283)				1.452* (0.245)
Asian		1.636 (0.411)				1.239 (0.323)
Other		1.017 (0.227)				0.887 (0.216)
Total Household Income (W1)			0.647***			0.705***

	(0.0509)	(0.0609)
Household Financial Strain (W1)	0.879	0.900
	(0.135)	(0.144)
Two-Parent Household (W1)	2.029***	1.974***
	(0.215)	(0.233)
Rural Percentage (W1)	0.993**	0.992**
	(0.00229)	(0.00239)
Personal Income (W4)	0.922*	0.930*
	(0.0304)	(0.0292)
Household Debts (W4)	0.596***	0.583***
	(0.0770)	(0.0744)
Household Assets (W4)	1.064	1.103
	(0.122)	(0.124)
Some Post-BA Experience (W4)	0.855	0.871

	(0.116)		(0.115)
Master's Degree (W4)	0.814		0.864
	(0.0911)		(0.0996)
Professional or Doctoral Degree (W4)	0.684*		0.791
	(0.123)		(0.157)
Currently Enrolled in School (W4)	0.992		0.966
	(0.118)		(0.110)
Living with Spouse (W4)	0.592***		0.591***
	(0.0735)		(0.0742)
Living with Romantic Partner (W4)	0.632***		0.630***
	(0.0721)		(0.0730)
Living with Child(ren) (W4)	1.532***		1.619***
	(0.147)		(0.153)
Percent in Poverty (W1)		0.997	0.996
		(0.00568)	(0.00623)

Percent Over Age 25 with Bachelor's (W1)					0.991*	0.990
					(0.00467)	(0.00511)
/						
cut1	0.609*** (0.0592)	0.147* (0.116)	0.00733*** (0.00610)	0.178*** (0.0675)	0.440*** (0.0859)	0.000685*** (0.000841)
cut2	1.325** (0.120)	0.322 (0.250)	0.0162*** (0.0135)	0.394* (0.148)	0.961 (0.195)	0.00155*** (0.00189)
cut3	3.016*** (0.282)	0.739 (0.577)	0.0377*** (0.0316)	0.914 (0.335)	2.189*** (0.466)	0.00371*** (0.00454)
cut4	15.73*** (2.186)	3.925 (3.175)	0.204 (0.176)	4.932*** (1.958)	11.43*** (2.636)	0.0212** (0.0265)
N	4075	4073	4071	4075	4075	4071
F	31.87	9.65	18.70	10.86	12.51	11.03
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 6. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support from Mother (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
First- Generation College Status	1.029 (0.0933)	1.012 (0.0895)	0.969 (0.0998)	0.986 (0.0904)	1.004 (0.102)
Age (W4)		0.892*** (0.0209)			0.948* (0.0235)
Female		1.037 (0.111)			1.044 (0.116)
Black/African American		2.067*** (0.280)			1.637*** (0.211)
Hispanic/Latino		1.200 (0.182)			1.095 (0.179)
Asian		1.631* (0.306)			1.612* (0.354)
Other		1.592* (0.339)			1.482 (0.308)
Total Household Income (W1)			0.931		1.072

	(0.0913)		(0.108)
Household Financial Strain (W1)	1.262		1.163
	(0.175)		(0.170)
Two-Parent Household (W1)	1.009		1.146
	(0.115)		(0.132)
Rural Percentage (W1)	1.001		1.004
	(0.00219)		(0.00225)
Personal Income (W4)		0.872**	0.876**
		(0.0412)	(0.0416)
Household Debts (W4)		0.914	0.934
		(0.135)	(0.139)
Household Assets (W4)		0.591***	0.618***
		(0.0828)	(0.0873)
Some Post-BA Experience (W4)		1.404*	1.443*

	(0.213)	(0.222)
Master's Degree (W4)	1.138	1.154
	(0.143)	(0.145)
Professional or Doctoral Degree (W4)	1.047	1.077
	(0.198)	(0.210)
Currently Enrolled in School (W4)	1.050	1.035
	(0.139)	(0.138)
Living with Spouse (W4)	0.460***	0.490***
	(0.0625)	(0.0684)
Living with Romantic Partner (W4)	0.817	0.836
	(0.107)	(0.112)
Living with Mother (W4)	2.152***	2.079***
	(0.244)	(0.230)
Living with Child(ren) (W4)	1.237*	1.239
	(0.131)	(0.141)

/					
cut1	2.230*** (0.148)	0.102*** (0.0668)	1.075 (1.137)	0.324* (0.175)	0.242 (0.318)
cut2	2.901*** (0.186)	0.134** (0.0873)	1.397 (1.480)	0.432 (0.231)	0.324 (0.424)
cut3	5.261*** (0.320)	0.245* (0.159)	2.538 (2.701)	0.806 (0.427)	0.607 (0.796)
<i>N</i>	4460	4458	4457	4460	4457
F	0.10	6.79	1.400	14.40	10.48
Prob > F	0.76	0.00	0.23	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 7. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support from Father (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
First- Generation College Status	0.982 (0.0975)	0.972 (0.0957)	1.019 (0.114)	0.973 (0.0978)	1.077 (0.122)
Age (W4)		0.878*** (0.0236)			0.931* (0.0265)
Female		1.090 (0.122)			1.112 (0.132)
Black/African American		1.869*** (0.212)			1.610*** (0.193)
Hispanic/Latino		1.328 (0.237)			1.206 (0.245)
Asian		1.836*** (0.307)			1.708* (0.350)
Other		1.474 (0.326)			1.292 (0.270)
Total Household Income (W1)			1.032		1.201

	(0.100)		(0.123)
Household Financial Strain (W1)	1.193		1.024
	(0.207)		(0.195)
Two-Parent Household (W1)	1.415**		1.382*
	(0.174)		(0.183)
Rural Percentage (W1)	0.999		1.002
	(0.00254)		(0.00254)
Personal Income (W4)		0.895*	0.902*
		(0.0429)	(0.0444)
Household Debts (W4)		1.088	1.123
		(0.184)	(0.191)
Household Assets (W4)		0.682**	0.702*
		(0.0948)	(0.0995)
Some Post-BA Experience (W4)		1.226	1.232

	(0.206)	(0.208)
Master's Degree (W4)	1.095	1.107
	(0.161)	(0.161)
Professional or Doctoral Degree (W4)	1.030	1.003
	(0.178)	(0.174)
Currently Enrolled in School (W4)	1.206	1.178
	(0.157)	(0.157)
Living with Spouse (W4)	0.473***	0.493***
	(0.0651)	(0.0728)
Living with Romantic Partner (W4)	0.795	0.796
	(0.100)	(0.107)
Living with Father (W4)	2.528***	2.258***
	(0.329)	(0.308)
Living with Child(ren) (W4)	1.189	1.241
	(0.132)	(0.145)

/					
cut1	2.579*** (0.172)	0.0795** (0.0598)	4.972 (5.292)	0.558 (0.309)	1.060 (1.465)
cut2	3.193*** (0.205)	0.0991** (0.0747)	6.160 (6.564)	0.704 (0.387)	1.343 (1.859)
cut3	5.810*** (0.353)	0.182* (0.136)	11.22* (12.08)	1.318 (0.711)	2.525 (3.505)
<i>N</i>	4079	4077	4076	4079	4076
F	0.03	7.97	1.79	12.18	10.08
Prob > F	0.86	0.00	0.12	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 8. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support to Mother (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
First- Generation College Status	2.051*** (0.274)	1.725*** (0.213)	1.308 (0.178)	1.956*** (0.270)	1.271 (0.172)
Age (W4)		0.985 (0.0282)			1.028 (0.0276)
Female		1.006 (0.113)			0.993 (0.114)
Black/African American		5.284*** (0.668)			2.990*** (0.438)
Hispanic/Latino		4.648*** (0.751)			3.093*** (0.579)
Asian		4.216*** (0.800)			3.139*** (0.624)
Other		3.507*** (0.943)			2.839*** (0.748)
Total Household Income (W1)			0.452***		0.589***

	(0.0466)	(0.0628)
Household Financial Strain (W1)	1.717**	1.543**
	(0.274)	(0.250)
Two-Parent Household (W1)	0.914	0.964
	(0.131)	(0.140)
Rural Percentage (W1)	0.992**	0.998
	(0.00288)	(0.00229)
Personal Income (W4)	1.034	0.981
	(0.0387)	(0.0386)
Household Debts (W4)	0.807	0.858
	(0.152)	(0.157)
Household Assets (W4)	0.589**	0.721*
	(0.0942)	(0.109)
Some Post-BA Experience (W4)	1.189	1.173

	(0.207)	(0.206)
Master's Degree (W4)	0.904	0.864
	(0.158)	(0.143)
Professional or Doctoral Degree (W4)	0.851	0.918
	(0.229)	(0.249)
Currently Enrolled in School (W4)	0.943	0.834
	(0.135)	(0.125)
Living with Spouse (W4)	0.507***	0.616***
	(0.0678)	(0.0859)
Living with Romantic Partner (W4)	0.703*	0.776
	(0.122)	(0.136)
Living with Mother (W4)	2.942***	2.338***
	(0.453)	(0.388)
Living with Child(ren) (W4)	1.455**	1.238
	(0.192)	(0.157)

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cut1	5.924*** (0.704)	6.355* (5.303)	0.000796*** (0.000861)	5.161*** (2.246)	0.0307* (0.0440)
cut2	7.713*** (0.936)	8.537* (7.179)	0.00106*** (0.00115)	6.846*** (3.015)	0.0423* (0.0608)
cut3	12.47*** (1.373)	14.25** (11.84)	0.00176*** (0.00189)	11.28*** (5.012)	0.0722 (0.103)
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N	4460	4458	4456	4460	4456
F	28.89	36.13	46.31	15.06	22.30
Prob > F	0.00	0.00	0.00	0.00	0.00
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Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 9. Results of Weighted Ordinal Logistic Regression Analyses of Predictors of Financial Support to Father (Full)

	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
First- Generation College Status	1.996*** (0.378)	1.706** (0.298)	1.352 (0.252)	2.006** (0.415)	1.314 (0.256)
Age (W4)		1.132** (0.0510)			1.185*** (0.0542)
Female		0.838 (0.124)			0.861 (0.136)
Black/African American		5.663*** (1.149)			3.831*** (0.844)
Hispanic/Latino		4.433*** (0.974)			3.626*** (0.913)
Asian		5.245*** (1.294)			4.175*** (1.235)
Other		4.391*** (1.328)			3.421*** (1.051)
Total Household Income (W1)			0.499***		0.649**

	(0.0601)		(0.0835)
Household Financial Strain (W1)	2.318***		1.998**
	(0.495)		(0.448)
Two-Parent Household (W1)	1.473		1.318
	(0.291)		(0.247)
Rural Percentage (W1)	0.998		1.007*
	(0.00390)		(0.00314)
Personal Income (W4)		1.014	0.942
		(0.0580)	(0.0507)
Household Debts (W4)		0.698	0.835
		(0.190)	(0.247)
Household Assets (W4)		0.795	0.991
		(0.170)	(0.234)
Some Post-BA Experience (W4)		1.111	1.164

	(0.283)	(0.291)
Master's Degree (W4)	0.808	0.752
	(0.210)	(0.188)
Professional or Doctoral Degree (W4)	1.336	1.331
	(0.418)	(0.392)
Currently Enrolled in School (W4)	1.074	0.966
	(0.226)	(0.204)
Living with Spouse (W4)	0.599*	0.699
	(0.138)	(0.159)
Living with Romantic Partner (W4)	0.501**	0.577*
	(0.116)	(0.131)
Living with Father (W4)	3.629***	3.034***
	(0.687)	(0.622)
Living with Child(ren) (W4)	1.193	0.955
	(0.245)	(0.197)

/					
cut1	12.06*** (1.748)	649.1*** (855.2)	0.00838*** (0.0107)	10.33*** (6.992)	14.34 (26.94)
cut2	15.34*** (2.280)	842.5*** (1113.1)	0.0108*** (0.0137)	13.33*** (8.976)	18.96 (35.63)
cut3	23.12*** (3.757)	1299.1*** (1722.5)	0.0164** (0.0208)	20.44*** (14.03)	29.92 (56.63)
<i>N</i>	4080	4078	4077	4080	4077
F	13.31	16.04	18.57	8.21	11.32
Prob > F	0.00	0.00	0.00	0.00	0.00

Notes. Exponentiated coefficients; Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix Table 10. Dependent Variable Information

Participant Education (Wave 4)												
	First-generation college graduates (N=1,862)						Continuing-generation college graduates (N=2,931)					
	Mothers (N=1,806) ^d			Fathers (N=1,585) ^e			Mothers (N=2,858) ^f			Fathers (N=2,677) ^g		
	N	%	Miss	N	%	Miss	N	%	Miss	N	%	Miss
	μ = 4.53 0			μ = 4.13 ^b 1			μ = 4.53 0			μ = 4.21 ^b 0		
Emotional Closeness to												
1: not at all close	16	<1%		50	3%		14	<1%		39	1%	
2: not very close	36	2%		86	5%		36	1%		128	5%	
3: somewhat close	164	9%		271	17%		241	8%		422	16%	
4: quite close	344	19%		383	24%		675	24%		721	27%	
5: very close	1,246	69%		794	50%		1,892	66%		1,367	51%	
Residential Proximity	μ = 2.88 ^c 0			μ = 2.76 ^c 3			μ = 2.53 ^c 0			μ = 2.41 ^c 3		
1: live 200+ miles away	454	25%		424	27%		1,026	36%		1,045	39%	
2: live 50-200 miles away	266	15%		257	16%		475	17%		453	17%	
3: live 11-50 miles	365	20%		333	21%		481	17%		440	16%	
4: live within 10 miles	492	27%		406	26%		566	20%		514	19%	
5: live together	229	13%		162	10%		310	11%		222	8%	
Financial Transfer from	μ = .71 ^c 0			μ = .62 ^c 0			μ = .78 ^c 2			μ = .70 ^c 2		
0: never	1,263	70%		1,177	74%		1,901	67%		1,860	70%	
1: yes, one or two times	95	5%		61	4%		164	6%		153	6%	

2: yes, three or four times	158	9%	125	8%	320	11%	259	10%
3: yes, number unknown	290	16%	222	14%	471	16%	403	15%
Financial Transfer to	$\mu = .69^c$	2	$\mu = .37^c$	0	$\mu = .40^c$	0	$\mu = .22^c$	1
0: never	1,250	69%	1,326	84%	2,365	83%	2,429	91%
1: yes, one or two times	118	7%	53	3%	94	3%	40	1%
2: yes, three or four times	178	10%	85	5%	153	5%	78	3%
3: yes, number unknown	258	14%	121	8%	247	9%	129	5%

Notes. ^a May not total to 100% due to rounding.

^b indicates a significant difference between the first- and continuing-generation graduate groups' mother or father variables using a two-way independent sample t-test of equal means ($p < .05$). Tests compare mother variables or father variables.

^c indicates a statistically significant difference between the underlying distributions of categories between the first- and continuing-generation college graduate groups' variables, using the Wilcoxon-Mann-Whitney test ($p < 0.05$). Tests compare mother variables or father variables.

^{d, f} These are the numbers of first- and continuing-generation college graduates who were raised by mother figures that were still alive at Wave 4.

^{e, g} These are the numbers of first- and continuing-generation college graduates who were raised by father figures that were still alive at Wave 4.

Appendix Table 11. Correlation Table of Dependent Variables in Add Health

Mother Dependent Variables				
	Closeness	Proximity	Money From	Money To
Closeness	1.00			
Proximity	0.05**	1.00		
Money From	0.08***	0.10***	1.00	
Money To	0.03*	0.19***	0.19***	1.00
Father Dependent Variables				
	Closeness	Proximity	Money From	Money To
Closeness	1.00			
Proximity	0.11***	1.00		
Money From	0.10***	0.09***	1.00	
Money To	0.04**	0.17***	0.17***	1.00
<i>Notes.</i> * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$				