PURPOSIVE BUDGETING SOCIALIZATION: EFFECTS OF MATERNAL CHARACTERISTICS ON COLLEGE STUDENTS’ FINANCIAL OUTCOMES

By

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To caffeine
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PURPOSIVE BUDGETING SOCIALIZATION:
EFFECTS OF MATERNAL CHARACTERISTICS ON COLLEGE STUDENTS’
FINANCIAL OUTCOMES

By

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This thesis examines the role of maternal characteristics on how frequently mothers intentionally taught budgeting behaviors to their children, and it investigates links between those lessons and college students’ own financial attitudes, experiences, and behaviors. The Family Financial Socialization theoretical model and critical review developed by Gudmunson and Danes (2011) guided this thesis. Data were collected using online survey responses from college students and their primary female caregivers during the summer and fall of 2013. Maternal characteristics including gender ideology and bargaining power in the household were not related to frequency of teaching budgeting to children, but the results show that mothers’ efforts to teach budgeting to their children were associated with increased budgeting behavior in college students. Students’ financial delay of gratification had the strongest positive relationship with students’ budgeting behavior, and students who had a greater relative share of financial responsibility and those who had taken a personal finance course also had more frequent budgeting behavior.
CHAPTER 1
INTRODUCTION

College is a time of unique financial responsibility and freedom that some students are underprepared to handle. Students face a variety of financial challenges, including rising tuition costs, relatively limited income, and the prospect of borrowing to finance their education. Budgeting during school is a strategy that can help reduce debt and build positive financial habits for the future, but many students do not plan and track their spending (Stollak, Vandenber, Steiner, & Richards, 2011). While financial educators can teach students how to budget, financial attitudes and behaviors are influenced by factors in addition to knowledge (Mandell & Schmid Klein, 2009). Money attitudes and spending and savings behaviors learned from parents during childhood can influence lifelong money management (Jorgensen & Salva, 2010). The current study defines financial socialization as “the transfer of financial attitudes, values, standards, or behaviors within the context of the family” (Danes, 1994, p. 127). Parents are especially important influencers in the financial socialization of their children, and the specific role that mothers play in this development will be explored in the current study.

Household Situation

As American families face financial challenges, financial experts should address how financial behavior is transferred between generations. Researchers must give greater attention to how families have been affected by the recent economic recession and how family characteristics can have lifelong impacts on family members’ behavior. While the economy is recovering, some families are still struggling with the consequences of the 2007 stock market crash. American households lost $11.2 trillion in net worth in 2008 alone (Kaiser, 2009). Over 1.2 million households filed bankruptcy
in 2012 (Administrative Office of the U.S. Courts, 2012), and home foreclosure and eviction have affected over 8 million children nationwide during the economic recession (Isaacs, 2012, p.2). Families headed by women have fared the worst of all family types. The national poverty rate was 15% in 2012, but female-headed households face the highest rates of poverty in the country—30.9%. (U.S. Census Bureau, 2012, p. 14; p. 16).

Debt has become the norm for families to subsidize their spending—from borrowing to finance large purchases like homes to taking on consumer debt to pay for everyday items—and the recession put increased pressure on families’ finances. Median household income dropped 38.8 percent from 2007 to 2010 (Bricker, Kennickell, Moore, & Sabelhaus, 2012). The median credit card balance was $3,300 in 2009 and total debt was $75,600 for households—up from $3,100 and $70,300 in 2007 (Bricker, Bucks, Kennickell, Mach & Moore, 2011, p. 27, Table 5). When crisis hit, many families did not have spending plans in place. Only 43% of American adults keep a formal budget to track their money and 22% do not know their typical monthly spending on basic needs and entertainment (The National Foundation for Credit Counseling, 2012, p. 3). While college students may not have directly felt the financial impact of recent economic events, they may have been influenced by changing financial behaviors in the family. Since parents are the biggest influence on the financial behaviors of children, the past few years of economic hardship have had a great influence on a cohort of children and young adults around finances (Adrian & Coontz, 2010).

**Student Situation**

Most undergraduate students enrolled in 2013 (when this study took place) were in high school when the economic recession began, and most of them did not receive
formal financial education. Only 13 states mandate financial education in high school curricula, so many young adults make important financial decisions without understanding the full implications of their choices (Council for Economic Education, 2012, p. 7). More young adults are attending college than ever—41% of 18-24-year olds were enrolled in 2009—but they face the rising cost of tuition and must make complex financial decisions to reach their educational goals, which have lasting impacts on their financial goals (U.S. Department of Education, 2012a). The average annual cost for a four-year degree was $15,014 in 2009-10, and the average graduate had $25,250 in debt in 2010 (U.S. Department of Education, 2012b; Reed, 2011, p.1). Getting a college degree is especially challenging for those who are employed while taking classes; a study commissioned by the Bill and Melinda Gates Foundation found that balancing work and school is the leading reason college students drop out (Johnson, Rochkind, Ott & DuPont, 2011).

In May, 2012, college graduates over 25 were less likely to be unemployed (3.7%) than those with only a high school diploma (7.7%) (U.S. Bureau of Labor Statistics, 2012). However, 53.6% of recent graduates—those under 25—were either unemployed or “underemployed”—working in jobs that did not require their degree (Yen, 2012). Most student debt cannot be discharged through bankruptcy (Pottow, 2007), and potential employers in most states may also use credit history as a way to screen job candidates, which further increases the burden of debt after graduation for those who had to borrow to finance their education and struggle to repay their loans (Society for Human Resource Management, 2010).

Maternal Socialization

Parents are the primary socializing agents for their children’s consumer behavior
Mothers are the focus of this thesis, since women still spend more time on childcare and are responsible for more of the household purchasing (Bureau of Labor Statistics, 2008). Parents have expectations about the age at which children should be engaged in discussions about financial issues, but they may not be aware of when children begin to learn from their example (Danes, 1994). Seminal consumer socialization researcher George Moschis (1985) suggested that researchers focus on how communication between family members influences consumer behavior beyond mass media influences. He outlined three steps in the consumer socialization process: 1.) purposive consumer training, 2.) observation of parental behavior, and 3.) positive reinforcement of socially desirable behavior (1985, p.905). Children may receive lessons about money from school, but repeated behavior in the home influences much of their relationship with finances; when mothers budget for the next month or save for the future, their children are learning lessons about money management (Clarke, Heaton, Israelsen, & Eggett, 2005). Ward, Wackman, and Wartella (1977) listed five ways mothers can teach their children consumer skills, including prohibiting spending, lecturing, discussing, leading by example, and letting children learn from personal experience. Those guidelines are still applicable today. Recent research has found that parents who display warmth toward their children and discuss charitable donations have adolescent children who are more likely to give and to save for their own schooling (Kim, LaTaillade, & Kim, 2011). As young adults begin to identify their role as adults, they learn from their family how to manage money, and a recent Creditcards.com poll of over 1,000 Americans found that mothers were the most
influential relative regarding finances (GfK Roper Public Affairs & Media, CreditCards.com, 2011).

In the context of the family, mothers and fathers often divide household tasks by gender, and children and adolescents are likely to be assigned household chores based on traditional gender roles (Peters, 1994). Domestic socialization may influence the personal and occupational choices that boys and girls consider as they develop. Parents with traditional gender roles further encourage their children to excel at subjects based on gender, as well (Updegraff, McHale, & Crouter, 1996). Women are socialized to participate in the private sphere of the home, but their voice is often muted in the public sphere. When young girls learn that they should not excel in math, science, certain competitive sports, or take leadership positions, those lessons carry over into their academic, professional, and personal lives (Eccles, 1994; Sahney, Benton & Ferry, 2010).

American women fare worse than men in many areas of the labor force and financial marketplace: taking lower-paying jobs (The White House, 2011), not negotiating for their salary (Babcock & Laschever, 2003), and avoiding investment risk and neglecting to plan for their own retirement (Bajtelsmit & Bernasek, 1996). They are less financially literate than men in this country, and they are less confident in their financial decisions (Lusardi, & Mitchell, 2006; Investment Weekly News, 2011). The uneven burden of caretaking by women (for children, parents, and through volunteer hours) creates further economic disadvantage (The White House, 2011) and perpetuates a cycle of gendered division of labor. However, women have made great...
employment gains over the past 50 years, and they did not experience unemployment at the same rate as men during the recession (The White House, 2011).

Women are moving toward parity in education and the labor force (The White House, 2011), and they are the most influential source of information about money management in the eyes of their children. In the 5th Annual T. Rowe Price survey on Parents, Kids, and Money, almost three-fifths of children (59%) said they would go to their mom first with questions about money, and 35% perceive their mothers as being in charge of the money in the household (2013, p. 10). Children also reported that their parents have taught them the most about saving, spending, and investing (2013, p. 24). Since children first learn about finances from their parents, and turn to their mothers to learn about money management, this study examines the characteristics of mothers that contribute to effective budgeting by their children.

Research Question

The following question guided this research: “How do the characteristics and actions of mothers influence their college-aged children’s budgeting behaviors?”
CHAPTER 2
LITERATURE REVIEW

Family Financial Socialization

While early research on how children learn money management from their families focused on more passive observation opportunities, recent studies have brought attention to hands-on teaching moments and the salience of the emotional nature of finances. Danes (1994) proposed that financial socialization is “the transfer of financial attitudes, values, standards, or behaviors within the context of the family” (p. 127). In contrast to more passive forms of socialization such as modeling, Gudmunson and Danes (2011) defined purposive financial socialization as “intentional efforts family members use to financially socialize each other” (p. 649). Serido and her colleagues (2010) described two main ways that adolescents can benefit from parental financial socialization, the development of financial values and the development of financial responsibility (p. 454). Hira (2012) acknowledged the persistence of familial financial feelings, which influence how people behave for life, describing the family as the location “where people attain their values, attitudes, knowledge, experiences and sense of financial responsibility” (p. 503). She called for financial literacy practitioners to include money values and personal reflection in their financial research and education (Hira, 2012).

Shim and her colleagues (2010) distinguished between passive and purposive socialization, defining anticipatory socialization, as “unconscious or conscious learning of financial knowledge, skills, attitudes and behavior that might be expressed, practiced, and/or intentionally taught by key socialization agents such as parents, school, and work, while they were adolescents growing up at home” (2010, pp. 1458-9). They
described parental direct teaching as “students’ perception of their parents’ engaging in direct teaching methods of financial management while they were growing up” (Shim, Barber, Card, Xiao, & Serido, 2010, p. 1461). Xiao, Ford and Kim (2011) stressed the importance of parent-child relationship quality through warmth and trust, rule-setting, and communication when teaching financial behaviors (p. 407).

Based on social science research showing the influence of the family on financial outcomes, Gudmunson and Danes (2011) created a conceptual model of Family Financial Socialization (Figure 2-1). Their goal was to examine the processes that lead to differential financial literacy outcomes across social and demographic variables. Rooted in social cognitive theory (Bandura, 1985), consumer socialization theory (Moschis & Churchill, 1978), and economic socialization theory (Ward, 1974), their model tied the individual and family behaviors to larger financial outcomes. They proposed three categories of processes that occur in families: personal and family demographic characteristics; family interaction and relationships; and purposive financial socialization (p. 648). The interaction of these categories with each other influences the financial attitudes, knowledge, and capabilities; financial behavior; and financial well-being of family members (p. 648). Their model included proposed linkages between these constructs and a review of 100 research articles each examining at least one of those linkages.

Figure 2-1 illustrates Gudmunson and Danes’ theoretical model, which includes broad categories of characteristics, processes, and outcomes to be considered in a more holistic view of family financial socialization.
The current study will explore how specific characteristics and behaviors of mothers affect the budgeting outcomes of their college-aged children. Each construct from the original model will be adapted to explore specific maternal characteristics and behaviors and specific characteristics, attitudes, and behaviors of their college-aged children. Child constructs include demographic variables (i.e., age, gender, and ethnicity); financial characteristics (i.e., financial responsibility and having taken a personal finance course); family interaction and relationships (maternal attachment); financial attitudes (financial delay of gratification); financial behavior (budgeting behavior); and financial well-being. Mother constructs include demographic variables (i.e., relationship to child, relationship status, education, household income, and contribution to household income); family interaction and relationships (maternal bargaining power) purposive financial socialization (purposive budgeting socialization), and gender ideology is examined to further understand household dynamics. See Figure 2-2 for the model guiding the current research.

**Child and Mother Characteristics**

Several demographic variables and personal characteristics are thought to contribute to financial behavior. This study includes the child’s gender, age, ethnicity, relative financial responsibility, and whether they have taken a personal finance course. In addition to basic demographic information, the study also includes the mother’s relationship to the child (biological parent or other relationship), relationship to a partner, education, household income, and mother’s relative contribution to household income.

**Maternal Bargaining Power**

Gudmunson and Danes (2011) described personal and family demographic characteristics as predictive in their model; instead of just using demographics of family
members to control for unexplained intergenerational trends, they suggest investigating
the reasons family influence differs based on demographics (p. 647). The current study
focuses on the financial control that mothers have in their household, not just the
income of the household unit. Several theories and models have been proposed to
explain how couples manage household resources. The Life-Cycle Hypothesis
(Modigliani, 1966) assumes that individuals aim to smooth their consumption over their
lifetimes, and borrow and save based on anticipated future income. Family Utility
Models (Becker, 1981) consider production from each spouse in the labor market and in
the household, and households are viewed as single economic units. Bargaining
models include cooperative models that view the contribution of each spouse pooled in
one model (McElroy and Horney, 1981) and noncooperative bargaining which include
“separate spheres” of spouses, where each contributes to specialized tasks (Lundberg
& Pollack, 1993). When intra-household bargaining theory considers a gendered
division of labor, it assumes that partners have differential bargaining power based on
income, wage potential, assets, wealth, legal rights, social norms, and caretaking roles
(Agarwal, 1997). Researchers have tried to measure the bargaining power of women in
many ways. The current research addresses how women share income and wealth in
relationships and if households manage money differently based on the earnings of
each partner.

**Maternal Attachment**

Maternal parenting style may moderate the impact of financial socialization
efforts in families; children may be less likely to take advice or model the behavior of
their mothers if they do not have a good relationship. Researchers have identified
maternal attachment as a possible protective factor for adolescent girls during family
stress. Girls with stronger attachment to their mothers had fewer conduct problems when families experience conflict than girls with weak attachment to their mothers (Formoso, Gonzales & Aiken, 2000). Parent-child relationships are complex and difficult to define, and there are many ways to categorize parenting, but this study will use Greenberg and Armsden’s (1986) Inventory of Parent and Peer Attachment (IPPA) to measure maternal attachment. Magoon and Ingersoll (2006) found that high school students were less likely to display problem behavior with gambling if they had a stronger attachment to their parents, and this relationship moderated peer pressure to gamble. In addition to parents talking about money management, having a warm relationship with children has been found to increase how much these children save for their own education (Kim, LaTaillade, & Kim, 2011).

**Maternal Purposive Budgeting Socialization**

Gudmunson and Danes defined purposive financial socialization as “intentional efforts family members use to financially socialize each other” (2011, p. 649). This distinction from most socialization measures—which assess how behavior is implicitly modeled—is important. This concept refers to financial messages that parents (and other relatives) send on purpose, not just the messages they transfer unknowingly. They note that these overt, deliberate lessons vary across many family characteristics like SES or cultural differences. Parents are the primary influence on children, and mothers, specifically, have been found to play an important role in socializing children around financial issues. Previous research on consumer socialization has focused on mothers as primary socializing agents due to their unique role in the marketplace, mediating role between others, and the lifelong influence on the financial behavior of their children (Carlson, Grossbart, & Stuenkel, 1992, p. 37). In Carlson, Grossbart, and
Stuenkel’s 1992 study, 93% of participating mothers (of elementary-aged students) “considered themselves to be the primary individual involved in their children's consumer socialization” (p. 38). More hands-on financial instruction from parents may cause life-long behavior change in children. College students who report learning about finances from their parents explicitly have been found to have better financial attitudes and behaviors than those who recall only implicit financial socialization (Jorgensen & Savla, 2010, p. 473).

Financial Delay of Gratification

Ray and Najman (2001) suggest that financial delay of gratification has implications beyond money management, saying “those who invest in their futures either by saving their financial resources or by engaging in protracted periods of education are more likely to be achievers and to be successful” (p. 117). Citing the early self-regulation researcher Walter Mischel, Mauro and Harris described the need for adolescents to delay gratification, saying, “The abilities to postpone immediate gratification because of future consequences, to impose delays of rewards on oneself, and to tolerate frustration are recognized as essential ingredients that facilitate the development of self-control, self-regulation, and successful socialization” (Mischel, 1974 as cited in Mauro & Harris, 2000, p. 292). Adolescents who delay gratification have been found to exhibit fewer problem behaviors than their peers who seek immediate gratification. For example, middle and high school students who delayed gratification in order to receive a higher financial incentive were found to have lower drug, alcohol, and tobacco use and performed better in school (Wulfert, Block, Santa Ana, Rodriguez, & Colsman, 2002). Mauro and Harris (2000) found that authoritative mothers were better able to teach their children how to delay gratification than mothers who had a
permissive parenting style. The gender of the child is an important factor; in a meta-analysis of 33 studies that tested delay of gratification in children around the world, Silverman (2003) found that girls were more likely than boys to wait for a larger/better future reward than to take the immediate reward. Childhood lessons about delaying gratification have salient, long-lasting effects. A Dutch study found that economic socialization efforts by parents positively influenced the future orientation of their children, which was measured using the Consideration of Future consequences scale, and this persisted into adulthood (Webley & Nyhus, 2006). Norvilitis and MacLean (2009) found that college students with higher financial delay of gratification had more responsible credit card behaviors when their parents taught them about finances, compared to students with lower financial delay of gratification.

**Financial Well-being**

Prawitz, Garman, Sorhairdo, O’Niell, Kim, and Drentea (2006) discussed how financial well-being and financial distress are related, saying, “The construct represents a continuum extending from negative to positive feelings about and reactions to one’s financial condition” (p. 34). The financial well-being of college students is difficult to describe, since they are at a unique time in their financial lives. Most traditional college students are not employed full-time, but many work to support themselves through school; 57 percent of college students are working at least part-time during their studies (Orszag, Orszag, & Whitmore, 2001).

Financial well-being varies across subgroups of college students. For example, the economic well-being of college students has been found to be predicted by different variables for males and females (Leach, Hayhoe, & Turner, 1999). Women in the study had lower perceived economic well-being if their parents argued about finances, but the
economic well-being of men was not affected (Leach, Hayhoe, & Turner, 1999). In a study of over 2,000 college freshmen, those who perceived higher quality communication with their parents had higher financial well-being than their peers, as well as lower psychological distress and higher subjective well-being (Serido, Shim, Mishra, & Tang, 2010). Gutter and Copur (2011) found that students who exhibited risky credit card use had lower self-reports of financial well-being. In a study of Hong Kong University students, Chan, Chan, and Chau (2012) found that college students who “practice good money management” had higher perceived financial well-being (p. 114).

**Budgeting Behavior**

Budgeting behavior is a set of financial behaviors that occurs regularly (daily, weekly, bi-monthly, monthly, seasonally, or annually). Families should set budgets to track expenses and to plan for spending needs and savings goals. Kapoor, Dlabay, and Hughes (2012) listed seven steps in the budgeting process: 1). Setting Financial Goals, 2). Estimating Income, 3). Budgeting an Emergency Fund and Savings, 4). Budgeting Fixed Expenses, 5). Budgeting Variable Expenses, 6). Recording Spending Amounts, and 7). Reviewing Spending and Saving Patterns (p. 89). Budgeting behaviors are often a part of money management behaviors that researchers examine to determine a person’s financial health. Hayhoe, Leach, and Turner, (2000) described money management with a scale of financial practices that included items about writing a budget, making a shopping list, planning expenditures, paying and keeping track of bills, and saving (p. 119). They found that gender was a significant factor in most of the reported financial practices—women were more likely to engage in both positive behaviors like making a written shopping list and negative behaviors like bouncing checks (2000). Walker (1996) found that new mothers were more likely to be better
financial managers if they were in more debt, compared to those with lower debt, possibly as a way to handle new financial stressors.

Special attention has been paid to college students by financial education researchers, and there are several interesting findings about this population. In their study of over 16,000 college students, Gutter, Garrison, and Copur (2010) found that budgeting behaviors are influenced both by observation and discussion of money management. College students who saw their parents model financial behavior and talked about financial issues with them budgeted and saved more than their peers who did not (p. 396). Financial literacy efforts by financial educators seem to be effective in preventing risky borrowing in this population. For instance, Robb (2011) found a positive relationship between how much students knew about personal finance and more responsible credit card use. Peer influence is still very strong for these young adults, however; peer social support is negatively correlated with the amount of credit card debt college students carry (Wang & Xiao, 2009). Wand and Xiao (2009) also found that students with compulsive buying habits are often motivated by competitiveness with their peers, and sometimes overspend to fit in. Budgeting can affect not only the financial security of emerging adults, but may contribute to their mental health as well. Undergraduates who practiced “positive financial behaviors” reported higher financial satisfaction and higher life satisfaction than their peers (Xiao, Tang, & Shim, 2009, p. 53).

**Summary**

The topics covered above are not an exhaustive list of possible financial relationships between mothers and their children, but focusing on these will add to the understanding of how mothers influence long-term financial outcomes. The current
study considers parents to be the most important financial socializers in their children’s lives—long after they have left home—and mothers are seen as especially powerful influences regarding financial issues. There is a gap in the literature regarding mothers’ perceptions of their own intentional efforts to teach money management to children. Financial education experts will benefit from a deeper understanding of how personal characteristics and demographic variables affect how mothers socialize their children, as well as how individual characteristics and experiences of children shape their own financial outcomes.

**Purpose of Study**

The purpose of this study was to investigate financial socialization and the influence of mothers on the financial behavior of late adolescents. The focus was on budgeting behavior since it is a lifelong process that anyone could master, regardless of current financial situation. College students are building autonomy and becoming more financially independent, and this study attempts to understand what contributes to budgeting behavior during this time. This research also sought to fill a gap in the financial socialization literature by investigating maternal characteristics and maternal self-reports of purposive socialization with the reported financial behaviors and attitudes of college students.

**Hypotheses**

To explore how mothers influence the budgeting behaviors of their children attending college, several maternal characteristics were tested along with the child’s own financial experience and attitudes. To examine the proposed relationships between variables, the following hypotheses were tested:
- Hypothesis 1. Children's budgeting behavior will be correlated with financial well-being.

- Hypothesis 2a. Mothers with a more egalitarian gender ideology will have a higher bargaining power in the household.

- Hypothesis 2b. Mothers with higher bargaining power in the household will engage in more purposive budgeting socialization with their children.

- Hypothesis 3. Budgeting behavior by children will be predicted by higher financial delay of gratification, maternal attachment, higher % of financial responsibility, and having taken a personal finance course.

- Hypothesis 4. Budgeting behavior by children will be predicted by mothers’ purposive budgeting socialization, moderated by maternal attachment.
Figure 2-1. Gudmunson and Danes’ (2011) Family Financial Socialization conceptual model.

Figure 2-2. Adaptation of Gudmunson and Danes’ conceptual model.
CHAPTER 3
METHODS

Research Design

To test these hypotheses, the current study used a non-experimental, comparative, cross-sectional design, using descriptive and inferential statistics. A cross-sectional design like this allows a snapshot of participants’ behavior at one point in time (deVaus, 2001). The theoretical population for this study was mothers and their children who were undergraduate students. The accessible population was undergraduate students in the Family, Youth and Community Sciences and Agricultural Education and Communication Departments at a large Southeastern university and their primary female caregivers.

Procedure

Before beginning the data collection process, permission was obtained from instructors of undergraduate courses to recruit participants from their classes. They either posted an announcement to the course website or forwarded an e-mail with the study recruitment details. In-class announcements were made for several fall courses. Student participants then completed an online survey with demographic information and four instruments. Participants were asked to provide their mothers’ contact information electronically. Mothers were then contacted via telephone or e-mail, and they completed an online survey. They were linked to their child using a unique code, and no names or other identifying information were disclosed. Mothers answered demographic questions and completed a survey assessing three concepts.

Participants were not given compensation; however, incentives were be provided in the form of Starbucks’ gift cards. Student participants received a $5 gift card if they
were the first respondent from each class. Instructors may have elected to offer extra credit for participation (not to exceed 2% of the final grade). An equivalent alternative assignment was offered to those who did not choose to participate in the research.

Informed consent was given electronically at the introduction to the online survey, and participants could not continue without giving consent. The informed consent described the purpose of the study, what was asked of participants, risks and benefits, compensation, confidentiality, and rights for participants. Please see Appendices A and B for child and mother consent documents.

**Instrumentation**

Students completed an online survey including demographic information, financial responsibility and education, and the four scales discussed below. Mothers completed an online survey with demographic information, financial situation, and three scales discussed below. See Appendices C and D for full questionnaires.

**Maternal Questionnaire**

The maternal questionnaire included demographic questions, one established scale, and two scales created for this study. The demographic section included questions about the mothers’ household and personal financial situation.

**Maternal bargaining power**

Maternal bargaining power was measured using an adaptation of the work of Phipps and Woolley (2008), who researched the intra-household control over savings in Canadian households—focusing on decision-making about wealth, not income, since women in relationships typically live longer and earn less over their lifetime (p. 593). Since there are no established scales to measure American mothers’ bargaining power in the household, this study used an adaptation of Phipps and Woolley’s questions
about budgeting. The scale had five items with response options that allow mothers to describe the relationship between themselves and their partner regarding everyday and long-term savings and spending decisions. Example items included “Who made the day-to-day spending decisions in your household? (Food spending, car maintenance, clothing)” and “Who really controlled the money in your household?”. There were five response options: Partner Only, Partner More Than Me, Both Equally, Me More Than Partner, and Me Only. Higher mean scores indicated higher maternal control on intra-household budgeting. One item, “Who had to justify spending decisions in your household?” was removed due to poor scale reliability (.61); the Cronbach’s alpha was .89 once the item was removed. The sample mean for the new scale was 3.47.

**Purposive budgeting socialization**

To assess how much mothers intended to teach their children about budgeting while they were in high school, this study used a seven-item scale based on the budgeting process outlined in Kapoor, Dlabay, and Hughes (2012). This scale is called purposive budgeting socialization, and it focused on intentional behavior from mothers to pass budgeting behavior on to their child, instead of observation opportunities. An example item is “How frequently did you TEACH the following with your child? Setting Financial Goals: Plans for future activities that require you to plan your spending, savings, saving, and investing”. Response options ranged from never to frequently on a 5-point frequency response scale. Higher mean scores reflected more purposive budgeting socialization. The mean score for the sample was 3.29, and the Cronbach’s alpha was .92.
Gender ideology

To better understand personal characteristics that may have contributed to mothers’ bargaining power in the household, gender ideology of mothers was measured using six items from the National Longitudinal Survey of Youth 1979 (NLSY-79), which has been used since 1979 (with the most recent panel in 2004) by the Bureau of Labor Statistics. Davis and Greenstein (2009) included six of the eight items from the survey in a review of international gender ideology instruments, and those are the items selected for use in this study. The scale is not a comprehensive gender ideology measurement, and the items specifically focus on the balance between work and family, asking respondents to rate their level of agreement to questions like, “Women are much happier if they stay at home and take care of their family.” The mean score for the sample was 4.07, and the Cronbach’s alpha was .85.

Child Questionnaire

The child questionnaire included demographic questions, two items about personal financial responsibility and financial education, three established scales measuring maternal attachment, financial delay of gratification, and financial well-being and one scale created for this study measuring budgeting behavior.

Maternal attachment

Maternal attachment was used measure family interaction and relationships, using the maternal version of the Inventory of Parent and Peer Attachment (IPPA) (Armsden & Greenberg, 1986). The inventory contained three subscales: trust, communication, and alienation. The inventory was developed for use with college students. The original inventory had 28 items, but the authors recommend using the revised version with 25 items. The inventory asked respondents to “Please read each
statement and circle the ONE number that tells how true the statement is for you now,” but was changed to “while you were in high school”, with the response options: “almost never or never true, not very often true, sometimes true, often true, almost always or always true” (p. 7). Example items included “My mother respected my feelings,” “I told my mother about my problems and troubles,” and “I trusted my mother.” (p.10). The authors reported the Cronbach’s alpha for the maternal attachment was .87 (p. 2). In this sample, the Cronbach’s alpha was .95, and the mean score was 4.01.

**Financial delay of gratification**

Financial delay of gratification was measured using Norvilitis and MacLean’s (2009) adaptation of Ray and Najman’s (2001) Delay of Gratification Scale. The original scale had 12 items, but Norvilitis and MacLean eliminated three items with the weakest relationship to delaying gratification. Their 9-point scale had a Cronbach’s alpha of .71 after that reduction. An example item was, “Are you good at saving your money rather than spending it right away?” (p. 59). The original response options were yes, no, or unsure, but they were changed to a 5-point agreement scale to remain consistent with the other scales in the questionnaire. The Cronbach’s alpha for this sample was .78, and the sample mean was 3.55.

**Financial well-being**

Financial well-being was measured using the InCharge Financial Distress/Financial Well-Being Scale, which was developed by a team of financial experts and scholars using several rigorous verification processes (Prawitz, et al., 2006). It is an 8-item measure with a Cronbach’s alpha of .95, and the developers paid special attention to several validity measures. It is well-cited in the literature, and has been used with college students (Gutter & Copur, 2011). Items include self-assessment
of present financial situation, anxiety about financial matters, and confidence in facing financial emergencies. The original scale had 10-point response scale, but the response categories were reduced to 5 to maintain consistency with other measures in this study, with a mean score of 3.05 and a Cronbach’s alpha of .91.

**Budgeting behavior**

Budgeting behavior was measured using a new scale based on the budgeting process outlined in Kapoor, Dlabay, and Hughes (2012)—just like the maternal measure for purposive budgeting socialization. The seven budgeting behaviors included are the same for both scales: 1). Setting Financial Goals, 2). Estimating Income, 3). Budgeting an Emergency Fund and Savings, 4). Budgeting Fixed Expenses, 5). Budgeting Variable Expenses, 6). Recording Spending Amounts, and 7). Reviewing Spending and Saving Patterns. Children were asked how often they do each, on a 5-point frequency response scale. Higher mean scores indicated better budgeting behavior, with a sample mean of 3.43 and a Cronbach’s alpha of .86.

**Analysis**

The online surveys were electronically collected by Qualtrics, and exported to a computer-based statistical software package (SPSS). Mother-child dyads were manually matched and then identifying information was stripped. Since there was an unequal number of child and mother survey responses, there are child-only, mother-only, and mother-child analyses. Each hypothesis is addressed below, and sample size for each analysis is presented in corresponding tables. The goals of this analysis were to explore: 1). how personal characteristics of college students contribute to their budgeting behavior 2). how the characteristics of mothers contribute to their purposive
budgeting socialization, and 3) how maternal attachment moderates maternal socialization on college students’ budgeting behaviors.

Bivariate correlations were run to test the strength, direction, and significance of the relationships in the first three hypotheses: students’ budgeting behavior and financial well-being, mothers’ gender ideology and bargaining power in the household, and mothers’ bargaining power in the household and mothers’ purposive budgeting socialization. The strength of each linear relationship is represented by the Pearson’s correlation coefficient (r), with values from -1 to 1, “with one being a perfect positive relationship” (Klass, 2012, p. 102). In the present study, statistical significance is only considered at p-values less than .05 and is indicated in the results with asterisks for each level of significance (Nardi, 2006).

To address hypotheses 3 and 4, multiple regression analyses were conducted. Multiple regression requires several assumptions to be met for results to be meaningful. Osborne and Waters (2002) highlighted the four assumptions most critical to researchers: 1.) variables are normally distributed 2.) a linear relationship between the independent and dependent variables exists 3.) variables are measured without error (reliably), and 4.) the distributions of the variables are homoscedastic, which means “the variance of errors is the same across all levels of the independent variable” (p. 4). While several of the variables are ordinal (frequency or agreement scales), Allison says using ordinal variables in multiple regression as if they continuous variables is a “reasonable approximation” (1999, p. 10). To test for multicollinearity, variance inflation factor analysis was run, and the variables all showed a variance inflation factor (VIF) less than
1.1, which indicated very low multicollinearity between variables; VIF less than or equal to 4 is an acceptable range according to Pan and Jackson (2008).

To address hypothesis 3, the current study examined the relationship between personal characteristics and budgeting behaviors of college students using regression. To describe the associations between the dependent variable (child’s budgeting behavior), control variables (child’s gender and ethnicity), and predictor variables (financial delay of gratification, maternal attachment, percentage of financial responsibility, and having taken a personal finance course) multiple regression was run. Hierarchical multiple regression (Field, 2005) was run, with the first block of control variables (gender and ethnicity), and the second block of predictors (financial delay of gratification, maternal attachment, financial responsibility and having taken a personal finance course).

To test hypothesis 4, only matched pairs of mothers and children were analyzed. Moderation was tested using multiple linear regression and an interaction term to test for moderation. Child budgeting behavior was the dependent variable, the predictor variable was purposive budgeting socialization, and the moderator variable was maternal attachment. To test for moderation, the interaction between maternal attachment and maternal purposive budgeting socialization (the multiplication of the two variables) was also added to the regression. Baron and Kenny (1986) indicate that moderator variables should not be correlated with either the predictor or dependent variables.
CHAPTER 4
RESULTS

This study sought to add to the understanding of college students' financial behaviors by focusing on how their own personal characteristics and their mothers’ socialization practices shape their budgeting behaviors. This chapter includes the results of data analysis performed on the child-only, mother-only, and mother-child samples.

Sample

Participants in the sample were recruited from one of several Family, Youth and Community Sciences (FYCS) or Agricultural Education and Communication (AEC) department courses in the summer and fall of 2013. Since there is overlap between courses and semesters, it was unreasonable to estimate how many total unique students were reached for participation or to calculate a response rate. Participants were undergraduate students over 18 years of age who consented to participate and had mothers who were willing to participate as well. Since participants were not randomly selected and inferences were not made to a larger population, this is a nonprobability sample (Hade & Lemeshow, 2008).

From 16 undergraduate courses, 403 students responded to the survey. Those who did not complete each instrument, repeat respondents, and those older than 25 were all eliminated. Older respondents were not included since this study is focused on traditional college students who are transitioning to independence, using Arnett’s (2000) conception of emerging adulthood, which is defined as 18-25. This cutoff corresponded with an analysis of extreme values in the sample, supporting the removal of those outliers. This resulted in a child sample of 323 individuals.
At the time of survey completion, students provided referral information for a primary female caregiver, who was then contacted through e-mail and/or phone. One-hundred and four caregivers responded to the maternal survey, with 84 remaining in the final dataset after removing those with missing data and those who responded more than once. The maternal response rate was 26.0%. These female caregivers will be called “mothers” for this analysis.

Chi square and ANOVA analyses were conducted to determine whether there were any statistically significant differences between the group in which mothers completed the survey and the group in which the mothers did not complete the survey; these analyses were run on all demographic variables and all variables of interest available from the child survey. These two groups were significantly different on only two variables: maternal attachment and financial well-being. The mean financial well-being score was for students whose mothers responded was 3.05, while the mean score for those who mothers did not respond was 2.95, \( F(32, 288) = 1.491, p< .05 \). The mean maternal attachment score for students whose mothers responded was 4.20, while the mean score for those who mothers did not respond was 3.94, \( F(1, 298) = 8.149, p< .005 \). This is logical, since mothers who responded may be more likely to have a close relationship with the child. All other demographic and predictor variables were not significantly different.

Chi square analysis was conducted to determine if any variables differed by gender of students. Only two variables differed significantly by gender in the sample. Girls in the sample were older than their male peers \( X^2(7, N=323) =23.99, p=.001 \), and
girls were more likely to have mothers who responded to the maternal survey \(X^2(1, N=323)= 2.91, p=.057\).

See Table 4-1 for complete descriptive statistics for the sample. The child sample was about 75% female (75.2%), and 60.4% white, 14.6% Hispanic or Latino, 11.8% black or African American, and 6.2% Asian; the mean age was 20.84 years. A majority of mothers in the sample were the biological mothers of child participants (96.4%) and married or living with a partner (84.5%). Almost 90% of mothers had at least some college (89.2%), and the mean household income was $97,509. The median household income was $90,000, indicating that the mean was pulled higher due to a few large values in the sample. According to census data, the median household income in the United States was $51,371 in 2012 (Noss, 2013, Table 1). The descriptive statistics for key variables can be found in Tables 4-3 and 4-4.

**Hypotheses**

**Hypothesis 1). Children’s budgeting behavior will be positively correlated with child’s financial well-being.**

The results of the correlation did not support the hypothesis of a significant relationship between budgeting behavior and financial well-being, with a correlation of \(r = -.018 (p = .751)\). Correlations of other child-generated variables were also run (Table 4-3), with several interesting relationships being evident. Financial well-being was positively associated with financial delay of gratification \(r = .304 (p< .001)\); and maternal attachment \(r = .193 (p< .001)\). Financial well-being was negatively associated with relative financial responsibility \(r = -.282 (p< .001)\). Budgeting behavior was not significantly associated with gender or ethnicity. Budgeting behavior was positively associated with
financial delay of gratification .465 (p< .001), maternal attachment .106 (p<.05), financial responsibility .278 (p<. 001), and having taken a personal finance course .198 (p<.001).

**Hypothesis 2a). Mothers’ gender ideology will be positively correlated with mothers’ bargaining power in the household.**

The results of the correlation did not support the hypothesis of a significant relationship between egalitarian gender ideology and bargaining power in the household, with a correlation of -.176 (p =.144). This negative relationship is an interesting finding, and it may indicate that the gender ideology of wives is not the primary factor influencing how much bargaining power each spouse has over finances in the household.

**Hypothesis 2b). Mothers’ bargaining power in the household will be positively correlated with mothers’ purposive budgeting socialization.**

The results of the correlation did not support the hypothesis of a significant relationship between bargaining power and purposive budgeting socialization, with a correlation of .184 (p=.105). While this did not meet the threshold for statistical significance, this p-value (.105) is approaching significance, and a larger sample may indicate a statistically significant relationship. Correlations of other mother-generated variables were also run (Table 4-4), with several interesting relationships. None of the demographic or predictor variables were significantly associated with maternal purposive budgeting socialization. The strongest positive association was between maternal bargaining power and maternal proportion of income .441 (p< .001). Maternal proportion of income was negatively associated with total household income -.324 (p< .01). Maternal gender ideology was not significantly associated with any other variable.
Hypothesis 3). Budgeting behavior by children will be predicted by higher financial delay of gratification, maternal attachment, child’s relative financial responsibility, and having taken a personal finance course.

Table 4-5 summarizes the results of the regression. Neither demographic variable showed a significant relationship with the dependent variable, budgeting behavior. In this study, gender and ethnicity were not significantly associated with the budgeting behaviors of college students. Three of the predictor variables, financial delay of gratification, child’s relative financial responsibility, and having taken a personal finance course, were all positively associated with budgeting behavior. Maternal attachment did not have a significant relationship with child’s budgeting behavior.

Hypothesis 4). Budgeting behavior by children will be predicted by mothers’ purposive budgeting socialization, moderated by maternal attachment.

The results of the regression did not support moderation of mothers’ purposive budgeting socialization by maternal attachment on child’s budgeting behavior. Table 4-6 summarizes the effect of maternal attachment as a moderator of purposive budgeting socialization. In the regression, neither purposive budgeting socialization nor maternal attachment were significantly related to child’s budgeting behavior.
Table 4-1. Descriptive statistics for the sample.

<table>
<thead>
<tr>
<th>Child Variables (n=323):</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>80 (24.8)</td>
</tr>
<tr>
<td>Female</td>
<td>243 (75.2)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>2 (.6)</td>
</tr>
<tr>
<td>Asian</td>
<td>20 (6.2)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>38 (11.8)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>47 (14.6)</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1 (.3)</td>
</tr>
<tr>
<td>White</td>
<td>195 (60.4)</td>
</tr>
<tr>
<td>Other</td>
<td>19 (5.9)</td>
</tr>
<tr>
<td>Age (mean =20.84; sd =1.26 )</td>
<td></td>
</tr>
<tr>
<td>18-21</td>
<td>247 (76.5)</td>
</tr>
<tr>
<td>22-25</td>
<td>76 (23.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother Variables (n=84):</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship to child</td>
<td></td>
</tr>
<tr>
<td>Biological mother</td>
<td>81 (96.4)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
</tr>
<tr>
<td>Married or living with partner</td>
<td>71 (84.5)</td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>13 (15.5)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>High school diploma/ GED</td>
<td>7 (8.3)</td>
</tr>
<tr>
<td>Some college/Associate's degree</td>
<td>29 (34.5)</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>33 (39.3)</td>
</tr>
<tr>
<td>Master's degree</td>
<td>6 (7.1)</td>
</tr>
<tr>
<td>Doctoral or professional degree</td>
<td>7 (8.3)</td>
</tr>
<tr>
<td>Total household income (mean= $97,509, sd = 81,109; median=$90,000)</td>
<td></td>
</tr>
<tr>
<td>$50,000 or less</td>
<td>26 (31.3)</td>
</tr>
<tr>
<td>$50,001-$100,000</td>
<td>31 (37.4)</td>
</tr>
<tr>
<td>$100,001 or more</td>
<td>26 (31.3)</td>
</tr>
</tbody>
</table>
Table 4-2. Measures of central tendency and dispersion of key variables.

<table>
<thead>
<tr>
<th>Child variables (n=323)</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeting Behavior</td>
<td>3.41</td>
<td>.840</td>
</tr>
<tr>
<td>Financial Delay of Gratification</td>
<td>3.55</td>
<td>.652</td>
</tr>
<tr>
<td>Maternal Attachment</td>
<td>4.01</td>
<td>.701</td>
</tr>
<tr>
<td>Financial Responsibility</td>
<td>43.74</td>
<td>36.65</td>
</tr>
<tr>
<td>Personal Finance Course</td>
<td>.16</td>
<td>.371</td>
</tr>
<tr>
<td>Financial Well-being</td>
<td>3.04</td>
<td>.946</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother variables (n=84)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purposive Budgeting</td>
<td>3.29</td>
<td>.912</td>
</tr>
<tr>
<td>Socialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td>97509</td>
<td>81109</td>
</tr>
<tr>
<td>Maternal Proportion of Income</td>
<td>.4155</td>
<td>.305</td>
</tr>
<tr>
<td>Maternal Gender Ideology</td>
<td>4.07</td>
<td>.741</td>
</tr>
<tr>
<td>Maternal Bargaining Power</td>
<td>3.47</td>
<td>.966</td>
</tr>
</tbody>
</table>

Table 4-3. Results of bivariate correlations between child variables (n=323).

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Budgeting Behavior</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Child’s Gender</td>
<td>-.010</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Child’s Ethnicity</td>
<td>.049</td>
<td>.011</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Financial Delay of Gratification</td>
<td>.465***</td>
<td>.034</td>
<td>.057</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maternal Attachment</td>
<td>.106*</td>
<td>-.007</td>
<td>.134*</td>
<td>.142</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Financial Responsibility</td>
<td>.278***</td>
<td>.024</td>
<td>-.028</td>
<td>.059</td>
<td>-.205</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Personal Finance Course</td>
<td>.198***</td>
<td>-.090</td>
<td>.076</td>
<td>.063</td>
<td>.075</td>
<td>.021</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>8. Financial Well-being</td>
<td>-.018</td>
<td>-.098</td>
<td>.077</td>
<td>.304**</td>
<td>.193**</td>
<td>-.282**</td>
<td>.029</td>
<td>1.0</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01 *** p<.001
Table 4-4. Results of bivariate correlations between maternal variables (n=84).

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purposive Budgeting Socialization</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Relationship to child</td>
<td>.193</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Relationship status with partner</td>
<td>-.156</td>
<td>-.272*</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Education</td>
<td>.086</td>
<td>.120</td>
<td>.106</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Household Income</td>
<td>-.111</td>
<td>-.078</td>
<td>.210</td>
<td>.300**</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Maternal Proportion of Income</td>
<td>.056</td>
<td>.094</td>
<td>-.384**</td>
<td>.060</td>
<td>-.324**</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Maternal Gender Ideology</td>
<td>.130</td>
<td>-.047</td>
<td>-.020</td>
<td>.215</td>
<td>.144</td>
<td>.180</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>8. Maternal Bargaining Power</td>
<td>.207</td>
<td>.242*</td>
<td>-.334**</td>
<td>-.022</td>
<td>-.188</td>
<td>.441**</td>
<td>.176</td>
<td>1.0</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01 ***p<.001

Table 4-5. Results of hierarchical regression for child variables on child’s budgeting behavior (n=287).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child’s Gender</td>
<td>-.022</td>
<td>.119</td>
<td>-.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child’s Ethnicity</td>
<td>.029</td>
<td>.034</td>
<td>.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.314***</td>
</tr>
<tr>
<td>Child’s Gender</td>
<td>-.034</td>
<td>.100</td>
<td>-.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child’s Ethnicity</td>
<td>.005</td>
<td>.029</td>
<td>.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Delay of Gratification</td>
<td>.544</td>
<td>.064</td>
<td>.427***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal Attachment</td>
<td>.105</td>
<td>.062</td>
<td>.088</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Responsibility</td>
<td>.006</td>
<td>.001</td>
<td>.268***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Finance Course</td>
<td>.358</td>
<td>.115</td>
<td>.156*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, **p<.01 ***p<.001
Table 4-6. Results of hierarchical regression for maternal variables on child’s budgeting behavior, with moderation of maternal attachment (n=84).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purposive Budgeting Socialization</td>
<td>-.464</td>
<td>.819</td>
<td>-.499</td>
</tr>
<tr>
<td>Maternal Attachment</td>
<td>-.325</td>
<td>.577</td>
<td>-.246</td>
</tr>
<tr>
<td>Purposive Budgeting Socialization x Maternal Attachment</td>
<td>.165</td>
<td>.187</td>
<td>.901</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td></td>
<td>.107</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01 ***p<.001
CHAPTER 5
SUMMARY AND CONCLUSIONS

Purpose of Research

The purpose of this study was to examine the role of family financial socialization on college students’ budgeting behavior. This research also sought to fill a gap in the financial socialization literature, contributing to what is known about maternal purposive socialization and its effects on the budgeting behavior of college students.

Theoretical Model and Discussion of Results

Using the theoretical model of family financial socialization developed by Gudmunson and Danes (2011), the current study explored maternal influences on the budgeting behavior of college students. The adaptation of the model developed for this study proposed that maternal characteristics and intra-household dynamics would predict how mothers would behave as financial socializing agents toward their children. Next, the model predicted that mothers would have a unique influence on the budgeting behavior of their college-aged children beyond the child’s personal characteristics.

The gender ideology of mothers was not associated with their bargaining power in the household, nor was it associated with any other maternal variable of interest. The gender ideology measure used in this study was specifically focused on work/home life balance, but did not assess global gender ideology. Possibly, only knowing the mothers’ gender ideology was not sufficient to understand household dynamics. Previous research has found that examining the interaction of spouses’ gender ideologies is necessary to understand household division of labor (Greenstein, 1996). In his study of over 2,700 married, heterosexual couples, Greenstein (1996) found that husbands’ share of housework only increased when they held an egalitarian gender ideology and
were married to wives who shared an egalitarian gender ideology. Knowing only the wife’s gender ideology did not predict how much each spouse contributed to domestic labor (Greenstein, 1996).

The prediction that maternal purposive budgeting socialization would be associated with the child’s budgeting behavior was supported. Mothers in the sample who reported teaching their children about budgeting behaviors while the child was in high school had children who engaged in more budgeting behaviors during college. Children’s perception of maternal socialization may be a more powerful predictor of budgeting behavior than mothers’ self-report.

Previous research has shown a negative relationship between maternal attachment and financial problem behaviors (Magoon & Ingersoll, 2006). From the full sample of children, the child’s report of maternal attachment did have a positive relationship with the child’s budgeting behavior. Parental warmth has been associated with an increase in students’ educational savings when parents discuss money management (Kim, LaTaillade, & Kim, 2011). It was predicted that the quality of the mother-child relationship would affect that budgeting behavior in the sample, which was not supported. From the sample of matched mothers and children, maternal attachment was not a moderator of purposive budgeting socialization on a child’s budgeting behavior, but purposive budgeting behavior alone was still positively associated with budgeting behavior. From the complete student sample, student-reported maternal attachment was significantly higher for students whose mothers responded. Moderation may not have occurred in this sample because it contained the subgroup of students with the closest relationships to their mothers, allowing for few cases of low attachment.
to analyze. Potentially, a complete sample of maternal responses from all students would include a greater range of maternal attachment, and moderation would be evident. Including a measure of student perception of the budgeting lessons their mothers taught them could have captured a greater range of responses, since all students could have responded.

The outcome of most interest in the current study was the budgeting behaviors of college students. The adaptation of the theoretical model predicted that budgeting behavior would be associated with financial well-being, which was not supported, but many of the other predicted relationships were supported. In the regression model of child variables, this study found the strongest predictor of a college students’ budgeting behavior was their own financial delay of gratification, and the two predictor characteristics of children (having taken a personal finance course and paying for more of their own expenses) were also significant predictors.

The most powerful predictor of a college student’s budgeting behavior was his/her own financial delay of gratification. Past research has shown that adolescents who have higher financial delay of gratification exhibit fewer problems behaviors (Wulfert et al., 2002) and less risky credit use (Norvilitis & MacLean, 2009). Compulsive buying tendencies are associated with higher credit card debt in college students, especially if the student also has low consideration of future consequences (Joireman, Kees, & Sprott, 2010). Gutter and Copur (2011) identified a negative relationship between compulsive buying and financial well-being. In this sample, financial delay of gratification was also positively associated with financial well-being.
Financial experiences like having a greater share of financial responsibility and having taken a personal finance course were associated with better budgeting behaviors in college students in the current study. Students who pay a greater share of their own expenses may face more financial challenges than their peers who have financial support from parents. Financial independence has been linked to risky credit use in college students (Lyons, 2008). While financial literacy and knowledge about finances are necessary but insufficient for behavior change, research indicates that students may practice what they learn outside of the classroom. College students who participated in a seminar-style personal finance course reported a greater intention to avoid risky behaviors than before the class (Borden, Lee, Serido, & Collins, 2007).

Financial well-being is not related with budgeting behaviors, but it does have a negative association with financial responsibility. While past research has discovered a positive relationship between “good” money management and higher financial well-being in Hong Kong college students (Chan, Chan, & Chau, 2012), the findings from this study do not indicate that college students in the Southeast United States exhibit the same outcome. College students who do not have to worry about financing their education or paying for their expenses during school might be expected to have a better outlook on their financial situation than those who are borrowing or working to support themselves. The scale developed in this study to measure budgeting behavior of college students only evaluated the frequency with which students are practicing budgeting behaviors, not how successfully they are mastering budgeting skills. While setting financial goals is a necessary budgeting behavior, this study did not discover how successful students were at reaching their own goals. If students are making
budgets and overspending every month, they may perceive this as a financial failing, and have lower financial well-being despite frequent budgeting behaviors. Gutter and Copur (2011) found that budgeting was negatively associated with financial well-being, while saving was positively associated with financial well-being in college students. Perhaps savings are the positive result of good budgeting. They also found that students who had higher self-efficacy and engaged in less frequent compulsive buying had higher financial well-being (Gutter & Copur, 2011). The measure used in the current study was subjective, and it primarily assessed how students felt about their financial situation. More objective measurements of financial well-being could identify subgroups of students based on their current financial situation, not just their perception. In the current study, financial well-being did have a strong positive relationship with financial delay of gratification and a positive relationship with maternal attachment as well as a negative relationship with relative share of financial responsibility.

**Implications for Practitioners**

Results from the current study suggest many practical actions for practitioners and educators. Considering the powerful role of financial delay of gratification on budgeting behaviors, financial interventions should include methods of reducing the opportunities for financial decisions to be made under emotionally-charged circumstances. If consumers proactively take control of their finances, they can plan for needs and budget for spending money on wants, satisfying desire for impulse purchasing without overspending. It is unclear if students who already had a lower financial delay of gratification budget more frequently naturally or if the practice of budgeting strengthens a person’s ability to delay financial gratification. It is possible that students who have budgeted successfully have increased their financial delay of
gratification due to the feedback gained by tracking expenses and setting goals. Conversely, another variable, like self-control or impulsiveness, may influence both. Budgeting curricula should encourage automating savings and necessary spending, which can reduce overspending by those who have lower financial delay of gratification. Removing the conscious decision to save may help individuals with lower financial delay of gratification avoid mistakes due to impulse purchases. Financial therapists may include financial delay of gratification measures in their assessment of clients to better understand this important financial attitude. Researchers recently conducted experimental research with Taiwanese college students to test whether delay of gratification could be influenced by mental priming, which involved leading students through guided imagery of their future life (Cheng, Shein, & Chiou, 2012). When given scenarios describing different short-term investments, students in the experimental group were more likely to choose larger payments in the future over smaller payments immediately (Cheng, Shein, & Chiou, 2012, p. 133). Another experiment with 72 adults recruited from the community tested the effect of priming, using a sentence unscrambling task, on desire to participate in hedonic activities (like drinking and gambling); those in the experimental group were less likely to report desire for hedonic activities (Cheng, Shein, & Chiou, 2012, p.136). Practitioners working on goal setting with clients could incorporate priming techniques from these experiments, such as creating images of future selves, to possibly shift them toward a more future-oriented mindset.

Having taken a personal finance course was positively associated with budgeting behavior in this study, which may indicate that financial education was effective for the
students in this sample. Alternatively, students may seek out elective personal finance courses if they are experiencing financial challenges or anticipate increased responsibility in the near future. College students may learn about financial behavior from many sources, but might only able to apply lessons when they are actually faced with decisions about their own finances. Timing financial education with the addition of financial responsibility may increase the effectiveness of lesson. Hands-on application of lessons to students’ lives as well as case study examples may strengthen knowledge learned in courses and allow students to receive feedback from their own spending habits. NEFE (National Endowment for Financial Education) offers a series of web-based workshop kits for college students with targeted topics like “Dealing with Debt” and “Budgeting for Life After Graduation” (NEFE financial workshop kits: College series, 2013).

Educators should include multi-generational financial lessons when parents (or guardians) and children are preparing for life transitions, like graduations or orientations when both are present. Timing financial education with applications for student aid for incoming college students may open communication about expectations about paying for school and living expenses. While many of the predicted relationships between maternal characteristics and mothers’ purposive budgeting socialization were not supported, the current study did find a positive relationship between maternal lessons about budgeting and future budgeting behavior of college students. Practitioners should recognize the importance of family financial socialization and the power of inter-generational messages about money. Financial educators should include takeaway lessons for parents and guardians to teach children. Practitioners may need to begin
with awareness of how important parents’ communication is in the financial development of their children. The National Financial Educators Council created “The Talk Financial Literacy PSA” campaign to encourage parents to discuss finances with their children with the same significance as drugs or alcohol (NFEC, 2013). Financial experts may be especially helpful for families with first-generation college students.

**Limitations**

The results from this study are not generalizable to all mothers and college-age children in the United States, since the sample was constrained due to time and practical considerations and is therefore not representative. The sample includes currently enrolled undergraduates in two departments at one large university and mothers who were available and willing to participate. The maternal response rate (26%) is a limitation, especially since there are limited differences between the group of students who had participating mothers and the group who did not. Students with mothers who responded to the survey had higher maternal attachment and financial well-being than those whose mothers did not respond. The results are constrained in terms of economic breadth and family structure of the sample; the median income was $90,000, and almost 85% of mothers were married or living with a partner. Results also may be limited due to the retrospection required for several responses. Mothers were required to reflect back on money management skills they intended to teach their children while they were in high school, and children required to reflect back to that time to report maternal attachment. The web-based survey method may have also deterred some participants.

The measures used in this study have never been used in combination before, and some were developed for use for the first time here. Another limitation is the use of
self-reported data, which makes results less reliable and valid, especially when items are more complex (Takalkar, Waugh, & Micceri, 1993). Since most Americans know they should be budgeting, another limitation is Social Desirability Bias (SDB), but Gonyea says, “In paper and online survey administration, the size of the SDB effect is usually small, and more prominent with potentially intimidating or anxiety-invoking questions” (2005, p. 82). Social desirability is real, however, and Gonyea stressed the importance of considering cultural forces and the social context of survey responses (2005).

The cross-sectional design makes it difficult to determine direction of causality. Relationships between variables do not indicate which occurred first or if one caused another to occur, just that they are associated now.

**Future Research**

Even though this study did not identify any predictors of maternal purposive budgeting socialization, mothers who engaged in more intentional efforts to teach their children how to budget did have children with better budgeting behavior. Additionally, college students in this sample who reported a closer relationship with their mother when they were in high school had better budgeting behaviors than those with lower attachment. Future researchers should also explore how different types of families teach children about finances, since there was not a diversity of family structure in this sample.

Future researchers may consider investigating the ways students budget, depending on how financially independent they are. It may look different for those who are working and borrowing to finance college than for those who are not. The measurement of financial responsibility was not normally distributed in the sample, and
responses were clustered at each end of the distribution for this variable. Future research should explore how family socialization influences those students who are most responsible for their own expenses. The current study did not investigate whether students could rely on parental financial assistance if they needed it. Norvilitis and MacLean (2009) found that college students who thought their parents would bail them out of credit card debt totaling over $10,000 carried lower levels of debt. This may have more to do with parental contribution to living expenses than debt strategies of students. If students are not financially independent from their parents, they may not need to borrow to pay for expenses.

Additionally, while college students are an easily accessed population for researchers from colleges and universities, much is unknown about the financial behaviors of young adults who are not students. Special attention on low wage earning families could help policymakers and practitioners implement effective programs to this group. In a study of over 2,000 low- and moderate-income homeowners, credit scores were found to be higher for adults who had received parent teaching of money management (Grinstein-Weiss, Spader, Yeo, Taylor & Books Freeze, 2011). Homeowners who achieved higher levels of formal education but did not have parents who taught them about money when they were growing up did not show the same credit score increase as those who receive childhood financial lessons and formal education (Grinstein-Weiss, et al., 2011). Cho, Gutter, Kim, and Mauldin (2012) explored an exciting new area of study by examining socialization and money management among low- and moderate-income adults. They found that parents’ discussions about money during childhood influenced how adults in the sample planned spending and set goals.
(Cho, Gutter, Kim, & Mauldin, 2012). This indicates that parents are important socializing agents in the financial lives of their children well into adulthood, and should motivate more research focus on Americans of all ages and income levels.

This cross-sectional research design can only allow limited conclusions to be drawn about the relationships between variables (deVaus, 2001). Future research should include stronger emphasis on longitudinal designs, which should include a more precise understanding of family types and could uncover a more refined understanding of family processes involved in family financial socialization. Researchers could track family behavior and observe cyclical patterns between generations. Longitudinal studies that take place during times of economic crisis like the recent recession could illustrate ways families cope with financial setback and may uncover protective factors that make families more resilient.

Experimental designs are also important for the future of financial education and intervention. Experimental research could identify the most effective strategies for budgeting depending on the financial gratification of participants, and an experimental design could explore whether this is a fixed personality trait or the result of financial experience. The work of Cheng, Shein, and Chiou (2012) offers promising evidence that financial delay of gratification can be shaped by priming tasks before financial decision-making occurs. Practitioners could garner support for programming through rigorous evaluation of financial interventions. Programs that create lasting behavior change in participants’ lives should provide evidence of their success so others may replicate positive results. The Financial Literacy and Education Commission released the National Strategy for Financial Literacy released in 2011, outing four calls to action: “1).
building public awareness of available resources; 2) developing tailored, targeted materials and dissemination strategies; 3) tapping into effective partnerships; and 4) supporting research and evaluation of financial education programs” (p. 3). Their recommendations include establishment of a clearinghouse to house evidence-based research and studies that compare the behavioral outcomes from financial education and other interventions (National Strategy for Financial Literacy, 2011, p. 12).

The findings from the current study allow financial experts to draw several conclusions about the budgeting behavior of college students and provide greater understanding of the lifelong influence of maternal socialization. While more research is needed to predict the frequency of budgeting lessons taught by mothers, the current study indicates that children benefit from those lessons as emerging adults. Educators can be encouraged by results indicating more frequent budgeting by students who have taken a personal finance course. Researchers should continue investigating personal characteristics like financial delay of gratification to better understand differences in financial behavior. Policymakers should address strategies to help students who are shouldering the cost of college alone.
APPENDIX A
CHILD CONSENT FORM

Informed Consent

Protocol Title: Purposive Budgeting Socialization: Effects of Maternal Characteristics on College Students' Financial Outcomes

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:
The purpose of this study is to examine how your mother’s financial behaviors affect your financial behaviors around budgeting.

What you will be asked to do in the study:
If you agree to participate, you will complete an online survey about your own financial attitudes, well-being, and budgeting behavior, as well as about your mother while you were in high school. You will complete a brief demographic information section, and then four short survey sections. You will be asked to provide your mother’s contact information, so she may choose to participate as well in a confidential online survey.

Time required:
About 10 minutes

Risks and Benefits:
The benefit(s) of participating in this study are not immediate. However, this research will be helpful in better understanding how mothers socialize their children around finances and how college students’ budgeting behavior outcomes are affected. The risk(s) of harm anticipated in the proposed research is not greater than that ordinarily encountered in daily life or through routine physical or psychological examinations or tests. There are no direct benefits to you for participating in the study.

Compensation:
You will not be financially compensated for participating in this research; however, an incentive will be provided in the form of Starbucks gift cards. Student participants will receive a $5 gift card if they are the first respondent from each class. Your instructor may elect to offer extra credit at their discretion not to exceed 2% of final grade. An alternative activity will be offered to those who do choose to participate in the research in the form of a web video discussion activity, which will be worth the equivalent extra credit points.

Confidentiality:
Your identity will be kept confidential to the extent provided by law. There is a minimal risk that security of any online data may be breached, but since the online host (Qualtrics) uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data and high-end firewall systems, and your data will be removed from the server soon after you complete the interview, it is unlikely that a security breach of the online data will result in any adverse consequence for you. The Qualtrics security statement can be found at http://www.qualtrics.com/security-statement/

Your survey responses will not be accessed or analyzed until both your survey and your mother’s survey have been obtained, linked and de-identified. When the study is completed and the data have been analyzed, the data will be destroyed. Your name will not be used in any report.

Voluntary participation:
Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:
Taylor Spangler, Graduate Student, Department of Family, Youth, and Community Sciences, McCarty B G091, phone (352) 273-3513.

David Diehl, PhD, Department of Family, Youth, and Community Sciences, McCarty D 3038B, phone (352) 273-3526.

Whom to contact about your rights as a research participant in the study:
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.
Approved by University of Florida Institutional Review Board 02 Protocol #2013-U-0548
For Use Through 05/10/2014
APPENDIX B
MATERNAL CONSENT FORM

Informed Consent


Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:
The purpose of this study is to explore the relationships between characteristics of mothers (i.e., how much power she has in household spending decisions, her gender attitudes, and how she teaches her child about budgeting) and outcomes for their college-aged children (i.e., financial delay of gratification, financial well-being, and budgeting behavior).

What you will be asked to do in the study:
If you agree to participate, you will complete a demographic survey and three (3) instruments: one (1) about your decision-making in your household, (1) about your gender attitudes, and one (1) about your efforts to teach your child about budgeting when he/she was growing up. You are also agreeing to the use of your child’s survey responses and comments about you for the research.

Time required:
10-15 minutes

Risks and Benefits:
The benefit(s) of participating in this study are not immediate. However, this research will be helpful in better understanding how mothers socialize their children around finances and how college students’ budgeting behavior outcomes are affected. The risk(s) of harm anticipated in the proposed research is not greater than that ordinarily encountered in daily life or through routine physical or psychological examinations or tests. There are no direct benefits to you for participating in the study.

Compensation:
You will not be financially compensated for participating in this research.

Confidentiality:
Your identity will be kept confidential to the extent provided by law. There is a minimal risk that security of any online data may be breached, but since the online host (Qualtrics) uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data and high-end firewall systems, and your data will be removed from the server soon after you complete the interview, it is unlikely that a security breach of the online data will result in any adverse consequence for you. The Qualtrics security statement can be found at http://www.qualtrics.com/security-statement/.

Your survey responses will not be accessed or analyzed until both your child’s survey and your survey have been obtained, linked and de-identified. When the study is completed and the data have been analyzed, the data will be destroyed. Your name will not be used in any report.

Voluntary participation:
Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:
Taylor Spangler, Graduate Student, Department of Family, Youth and Community Sciences, 3002 McCarty
Hall D, PO Box 110310, Gainesville, FL 32611; phone 352-273-3513.

Dr. David Diehl, Department of Family, Youth, and Community Sciences, 3002 McCarty Hall D
PO Box 110310, Gainesville, FL 32611; phone 352-273-3526.

**Whom to contact about your rights as a research participant in the study:**
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 352-392-0433.

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Approved by
University of Florida
Institutional Review Board 02
Protocol # 2013-U-0548
For Use Through 05/10/2014
APPENDIX C
CHILD QUESTIONNAIRE

Agreement: I have read the procedure described above. I voluntarily agree to participate in the procedure, and I have received a copy of this description.
☒ I accept

Thank you for taking the time to complete this survey. Your responses will remain confidential, and your mother will never see your responses. Please provide your name ensure that the data can be matched.

Please provide your course abbreviation and number (e.g., FYC3001).

My primary female caregiver during high school was:

Her preferred method of contact is
☒ e-mail ____________________
☒ phone ____________________
☒ mail ____________________

Thank you for taking the time to complete this survey! Please fill in each response to the best of your ability—some questions will ask you to think back to when you were in high school, while some will ask for current beliefs and behaviors.

With which gender do you self identify?
☒ Female
☒ Male
☒ Other (please specify) ____________________

How old are you?

With which racial/ethnic group do you identify? (check all that apply).
☒ American Indian or Alaska Native
☒ Asian
☒ Black or African American
☒ Hispanic or Latino
☒ Native Hawaiian or Other Pacific Islander
☒ White
☒ Other ____________________

How much of your financial expenses do you pay for yourself? Indicate the percentage of your expenses that you pay on your own (from 0-100%).
Have you ever taken a personal finance course?
- Yes
- No

These questions ask you to reflect back on the time when you were in high school. Please consider that time as you answer.

**Maternal Attachment**

Some of the following statements ask about your feelings about your mother or the person who has acted as your mother. If you had more than one person acting as your mother (e.g. a natural mother and step mother) answer the questions for the one you feel has most influenced you.

Please read each statement and circle the ONE number that tells how true the statement was for you while you were in high school.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost Never or Never True</th>
<th>Not Very Often True</th>
<th>Sometimes True</th>
<th>Often True</th>
<th>Almost Always or Always True</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mother respected my feelings.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt my mother did a good job as my mother.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I wished I had a different mother.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mother accepted me as I was.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I liked to get my mother's point of view on things I was concerned about.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt it was no use letting my feelings show around my mother.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mother could tell when I was upset about something.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Talking over my problems with my mother made me feel ashamed or foolish.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mother expected too much from me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I got upset easily around my mother.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I got upset a lot more than my mother knew about.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When we discuss things, my mother cares about my point of view.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mother trusted my judgment.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
My mother had her own problems, so I didn't bother her with mine.  
My mother helped me to understand myself better.  
I told my mother about my problems and troubles.  
I felt angry with my mother.  
I don't get much attention from my mother.  
My mother helped me to talk about my difficulties.  
My mother understands me.  
When I was angry about something, my mother tried to be understanding.  
I trusted my mother.  
I could count on my mother when I needed to get something off my chest.  
If my mother knew something was bothering me, she asked me about it.  
My mother didn’t understand what I was going through those days.

<table>
<thead>
<tr>
<th>Financial Delay of Gratification</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am good at saving my money rather than spending it straight away.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I tended to save my pocket-money as a child.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When I am in a supermarket I tend to buy a lot of things I hadn’t planned to buy.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am constantly “broke.”</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I agree with the philosophy: “Eat,</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
drink, and be merry, for tomorrow we may all be dead."
I would describe myself as often being too impulsive for my own good.
I fairly often find that it is worthwhile to wait and think things over before deciding.
I like to spend my money as soon as I get it.
I am good at planning things way in advance.

### Budgeting Behavior
How frequently do you currently do the following?

<table>
<thead>
<tr>
<th>Budgeting Activity</th>
<th>Almost Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting Financial Goals: planning for future activities that require you to plan your spending, savings, and/or investing</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Estimating Income: approximating how much money is coming in, from any source.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Budgeting an Emergency Fund and Savings: setting aside money for unexpected expenses and future financial security.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Budgeting Fixed Expenses: planning for the costs that do not vary much and occur regularly (usually monthly). For example, rent, car payments, insurance, etc.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Budgeting Variable Expenses: planning for the costs that can vary with each payment and may occur irregularly. For example, cell phone bill, utilities, food and clothing purchases, etc.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Recording Spending Amounts: using a system to keep track of actual income and expenses (written or electronic).</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Reviewing Spending and Saving Patterns: evaluating budget plan periodically (monthly or seasonally) to</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Financial Well-Being Select the responses that are most appropriate for your situation.
<table>
<thead>
<tr>
<th></th>
<th>Overwhelming Stress</th>
<th>High Stress</th>
<th>Neutral</th>
<th>Low Stress</th>
<th>No Stress at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you feel is the level of your financial stress today?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Dissatisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Neutral</th>
<th>Somewhat Satisfied</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>How satisfied are you with your present financial situation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Feel Overwhelmed</th>
<th>Sometimes Feel Worried</th>
<th>Neutral</th>
<th>Not Worried</th>
<th>Feel Comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do you feel about your current financial situation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Worry All the Time</th>
<th>Sometimes Worry</th>
<th>Neutral</th>
<th>Rarely Worry</th>
<th>Never Worry</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you worry about being able to meet normal monthly living expenses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No Confidence</th>
<th>Little Confidence</th>
<th>Neutral</th>
<th>Some Confidence</th>
<th>High Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>How confident are you that you could find the money to pay for a financial emergency that costs about $1000?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>All the Time</th>
<th>Sometimes</th>
<th>Neutral</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often does this happen to you: You want to go out to eat, go to a movie, or do something else and don’t go because you can’t afford to?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How frequently do you find yourself just getting by financially and living paycheck to paycheck?

<table>
<thead>
<tr>
<th>All the Time</th>
<th>Sometimes</th>
<th>Neutral</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How stressed do you feel about your personal finances in general?

<table>
<thead>
<tr>
<th>Overwhelming Stress</th>
<th>High Stress</th>
<th>Neutral</th>
<th>Low Stress</th>
<th>No Stress at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for completing this survey!

Please leave any comments you feel would be useful in understanding how financial behaviors are passed from mothers.
APPENDIX D
MATERNAL QUESTIONNAIRE

Agreement: I have read the procedure described above. I voluntarily agree to participate in the procedure, and I have received a copy of this description.
☐ I accept

Thank you for taking the time to complete this survey. Your child completed a survey about their financial behaviors in an undergraduate course at the University of Florida. Your responses will remain confidential, and your child will never see your responses. Please provide the name of that child to ensure that the data can be matched.

What is your relationship to the student about whom you are answering these questions?
☐ Biological mother
☐ Adoptive mother
☐ Stepmother/father’s spouse
☐ Grandmother
☐ Aunt
☐ Other (please specify) ____________________

What is your current relationship status?
☐ Single, never married
☐ Married or in a domestic partnership
☐ Living with partner
☐ Widowed
☐ Divorced
☐ Separated

Did your relationship status change while your child was in high school? If so, describe:
☐ No
☐ Yes ____________________

With which racial/ethnic group do you identify? (check all that apply).
☐ American Indian or Alaska Native
☐ Asian
☐ Black or African American
☐ Hispanic or Latino
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Other ____________________
What is the highest level of education you have achieved?
○ Less than high school
○ High school diploma/ GED
○ Some college/ Associate's degree
○ Bachelor's degree
○ Master's degree
○ Doctoral or professional degree

These questions ask you to reflect back on the time when your child (who is currently at the University of Florida) was in high school. Please consider that time as you answer.

When your child was in high school, which of the following would have best described your employment status?
○ Working full time paid employment (35 or more hours per week)
○ Working part time paid employment (less than 35 hours per week)
○ Not in paid employment
○ Other ____________________

During the time your child was in high school, what was your estimated total annual household income? You may give an average, but please report a single figure, not a range.

Approximately how much did you contribute to your total annual household income before taxes during that period? You may give an average, but please report a single figure, not a range or percentage.

These questions are designed to measure the actions you deliberately took to teach your child about budgeting. Please answer each of the questions about your child during high school.
### Purposive Budgeting Socialization

How frequently did you TEACH your child about the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting Financial Goals: planning for future activities that require you to plan your spending, savings, and/or investing</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Estimating Income: approximating how much money is coming in, from any source.</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Budgeting an Emergency Fund and Savings: setting aside money for unexpected expenses and future financial security.</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Budgeting Fixed Expenses: planning for the costs that do not vary much and occur regularly (usually monthly). For example, rent, car payments, insurance, etc.</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Budgeting Variable Expenses: planning for the costs that can vary with each payment and may occur irregularly. For example, cell phone bill, utilities, food and clothing purchases, etc.</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Recording Spending Amounts: using a system to keep track of actual income and expenses (written or electronic).</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Reviewing Spending and Saving Patterns: evaluating budget plan periodically (monthly or seasonally) to make adjustments if actual spending differs from budgeted amounts.</td>
<td>⬤</td>
<td></td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
</tr>
</tbody>
</table>
### Maternal Bargaining Power

Please answer the following based on your household situation while your child was in high school:

<table>
<thead>
<tr>
<th></th>
<th>Partner Only</th>
<th>Partner More Than Me</th>
<th>Both Equally</th>
<th>Me More Than Partner</th>
<th>Me Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who was responsible for day-to-day money management tasks in your household? (Paying bills, cashing checks, and depositing money into accounts)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Who made the day-to-day spending decisions in your household? (Food spending, car maintenance, clothing)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Who did the longer-term planning of money matters in your household? (Saving for retirement, buying insurance, opening new accounts)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Who had to justify spending decisions in your household?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Who really controlled the money in your household?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Gender Ideology
Please rate your level of agreement for the following questions:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A woman’s place is in the home, not in the office or shop.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>A wife who carries out her full family responsibilities does not have time for outside employment.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The employment of wives leads to more juvenile delinquency.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Men should share the work around the house with women, such as doing dishes, cleaning, and so forth.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Women are much happier if they stay at home and take care of their family.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Thank you for completing this survey! Please leave any comments you feel would be useful in understanding how financial behaviors are passed to children.
REFERENCES


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BIOGRAPHICAL SKETCH

Taylor Spangler graduated from the University of Florida in 2011 with a Bachelor of Science degree in family, youth, and community sciences with a minor in sustainability studies. She graduated with Master of Science degree in family, youth, and community sciences and received a certificate in gender and development, in the fall of 2013.