Purposive and Unintentional Family Financial Socialization, Subjective Financial Knowledge, and Financial Behavior of High School Students

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Using the family financial socialization theory, this study investigated the financial knowledge and behavior of high school students' contextualizing unintentional and purposive family financial socialization. The sample of 4,473 high school students were 51% females, 45% seniors, and ethnically diverse. A path analysis tested conceptual relationships between variables. Results indicated that the two unintentional socialization indicators were positively associated with subjective financial knowledge and financial behavior. Those indicators were also indirectly associated with financial behavior through knowledge. Student-earned income, a purposive indicator of socialization, was positively associated with behavior through knowledge. Exclusively obtaining money through parents was negatively associated with behavior through knowledge. Knowledge was positively associated with behavior.

Keywords: access to money, family interaction, financial behavior, financial knowledge, financial socialization, high school students, students of color

High school is when students learn about their own being and prepare to transition to the workforce or pursue higher education. These important life transitions have many financial ramifications. If the choice is to seek higher education, students are expected to make financial decisions regarding paying for college. With the average college student graduating with $30,100 in student loan debt from 4-year public institutions (Institute of College Access and Success, 2016), it is critical to equip high school students with the necessary tools to make prudent financial decisions. The tools for making sound financial decisions are needed for both students who choose to enter the workforce directly after high school and those who decide to attend college. A longitudinal study examining the financial behaviors of high schoolers over a 1-year timeframe found that students who decided to enter the workforce had similar budgeting and saving challenges as peers who were attending college (Danes, Deenanath, & Yang, 2016). However, the Jump$tart Coalition for Personal Financial Literacy found, via national financial literacy surveys for high schoolers, that the average literacy score was 52.4% or lower (Mandell, 2006), signifying that high schoolers need additional help (e.g., financial education classes, financial support from parents) to become financially self-reliant.

Two main ways of influencing the financial knowledge and behavior of high school students are through financial education and family socialization. Financial education in high schools can be seen as a method to help increase the financial literacy of students, but findings regarding classroom financial education tend to be inconclusive. In 2009, Mandell and Klein found no differences in the financial literacy scores for students who took a financial education course in contrast to those who did not. Other studies evaluating the impact of a specific high school financial curriculum found that after completing that curriculum, students reported increased financial knowledge, confidence in their money management, and short-term savings rates (Danes & Brewton, 2014; Danes, Huddleston-Casas, & Boyce, 1999). Although financial literacy of our citizenry is critical, only

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15 of the 50 U.S. states mandate any form of financial education for high schoolers (National Report Card, 2015).

Another prominent influencer of high schoolers' financial knowledge and behavior is family financial socialization, specifically through parents. In comparison to the mixed findings about the effect of financial education in schools, the literature has consistently found that family financial socialization has been essential in teaching children about money (Beutler & Dickson, 2008; Crites, Behal, Haldrman, & Bennett, 2001; Danes, 1994; Moschis, 1987). Financial socialization is defined as "the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and individual well-being" (Danes, 1994, p. 128). Parents are critical to children's financial socialization process because they are gatekeepers of knowledge regardless of age until adulthood (Danes, 1994). Thus, family financial socialization of children is a major component in the development of their financial capability as adults (Johnson & Sherraden, 2007).

Financial socialization can be a purposive process where parents teach children about specific aspects of money management; where they provide children access to money to gain experience in decision making, or they facilitate money earning opportunities (Lewis, Mimura, Mauldin, Rupured, & Jordan, 2008). Additionally, children learn a great deal about finances unintentionally through family interactions around money; these unintentional learnings often have as strong an impact on children's financial socialization as purposive actions (Danes, 1994). The purpose of this study is to investigate the influence of unintentional and purposive financial socialization on financial knowledge and behavior.

Although the financial socialization literature that targets the role of parental financial socialization and how it influences their children's financial knowledge and behaviors is rapidly emerging (e.g., Jorgensen & Savla, 2010; Norvilitis & MacLean, 2010; Serido, Shim, Mishra, & Tang, 2010; Shim, Barber, Card, Xiao, & Serido, 2010; Shim, Serido, Bosch, & Tang, 2013; Solheim, Zuiker, & Levchenko, 2011), little research has been performed that distinguishes between the purposive and unintentional types of child learning within the financial socialization process. The population studied within that existing literature is primarily college students. This article contributes to the literature in two ways. First, it distinguishes purposive and unintentional learnings within the family socialization process. Second, it focuses on a younger population, high school students, a developmental age where parents still play a major role in their developmental process.

Beliefs within ethnicities surrounding the meaning of money undergird family interactions involving money and have an impact on the financial socialization that occurs within families (Danes, Garbow, & Hagen-Jokela, 2016; Danes, Meraz, & Landers, 2015). Most studies include a solely dichotomous race variable that contrasts Whites with all other ethnicities, so that the precision of the impact of the diverse ethnicity is lost. This study contributes to the literature by including a more complex examination of ethnicities.

High schoolers are within four years or less of starting the process of becoming financially independent. Research is needed to understand the role of parents in the financial socialization process to ascertain the motivations, needs, and wants that undergird the financial decisions and behaviors before they become financially independent (Danes & Haberman, 2007; Danes et al., 1999). This study aims to increase our understanding regarding the manner in which financial socialization occurs in families who parent high school students and how it influences high schoolers' financial knowledge and behavior.

Theoretical Model

The family financial socialization theory (FFST; Danes & Yang, 2014; Gudmunson & Danes, 2011) focuses on the contribution of family financial socialization processes in explaining financial outcomes. FFST specifies the key constructs of personal and family characteristics, family relationships and interactions, and purposive financial socialization as financial socialization processes that impact the outcomes of financial behavior and financial well-being through the acquisition of financial attitudes, knowledge, and capabilities.

In FFST, sociodemographic factors are conceptualized as personal and family characteristics and will be referred to as such henceforth in this study. The literature has shown differences in the level of financial knowledge based on gender (Garrison & Gutter, 2010; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000) and ethnicity (Chen &Volpe 1998; Lucey

& Giannangel, 2006; Murphy, 2005; Xiao, Ford, & Kim, 2011). Hence, this study will investigate the role of gender, ethnicity, hometown location, and senior status of high school students.

According to FFST, financial socialization between parents and children occurs within the family through unintentional and purposive socialization processes. Children learn unintentionally by watching their parents and by modeling the behaviors observed. When children hear their parent discussing money issues, they also learn about money unintentionally. Discussions and questioning by children clarifies their observations and creates confidence in handling money (Gudmunson & Danes, 2011). Thus, communication with parents about money matters and confidence in money decisions are indicators of unintentional financial socialization through family interactions in this study. Knowledge is introduced as an intervening variable in the path analysis when investigating financial behavior because although financial knowledge has mixed effects on financial behavior, it is important to control for what students have learned in their family context.

Parents can purposively teach children about financial concepts and behaviors (Gudmunson & Danes, 2011). In order to be purposively socialized about money and make decisions about money, children must have access to money. Children's access to money could be achieved by either earning money outside the household or having access through parents. Children could earn money through part-time jobs in the formal marketplace or by working around the neighborhood. Parents could encourage these endeavors to purposively create a financial decision-making context and a learning environment in which to discuss money matters. Parents can also provide children with money as needed or provide an allowance that creates, although different, another purposive learning context. An example of purposive financial socialization is opening a savings account and explaining the importance of saving to the child.

In FFST, unintentional and purposive financial socialization processes lead to financial outcomes. In assessing financial socialization outcomes, FFST contends that individuals carry certain attitudes, knowledge, and behaviors with them from context to context. Through interactions with family members, financial socialization occurs leading to financial outcomes. Demonstrating this proposition is the findings of Jorgensen and Salva (2010) who found that 67% of college students viewed parents as their primary teacher of financial knowledge. FFST proposes that family socialization processes lead to the development of financial knowledge, which then contributes to the development of healthy behaviors (Danes & Yang, 2014; Gudmunson & Danes, 2011).

Literature Review

Financial Knowledge and Behavior

Studies have shown that parents influence the financial knowledge and behavior development of their children. Bowen (2002) found that teens learned about money issues from their parents, but there was often not a direct transfer of knowledge between parents and teens. For example, if parents demonstrated healthy financial decisions, children may or may not have made similar healthy decisions.

The type of influence that financial knowledge has on behavior can be positive or negative. For instance, Borden and colleagues found that financial knowledge of college students did not always directly influence financial behavior (Borden, Lee, Serido, & Collins, 2008). In that study, financial knowledge was not a significant predictor for either risky or healthy financial behaviors, which may mean that there were other factors influencing financial behaviors. In contrast, Jorgensen and Savla (2010) found that an increase in financial knowledge improved financial attitudes and behaviors of college students. Similarly, in a study conducted by Robb (2011), assessing the credit card behaviors of college students, the author found higher levels of financial knowledge were congruent with more responsible credit card behaviors, demonstrating the integral relationship between financial knowledge and behavior. Still, other studies using a college student sample found that financial knowledge was more predictive of credit card debt and larger revolving credit card balances (Hancock, Jorgensen, & Swanson, 2012; Norvilitis & MacLean, 2010; Robb & Sharpe, 2009). Although there is a fair amount of college student research showing that there is a relationship between financial knowledge and behavior, the literature on the influence of financial knowledge on behavior for high school students is limited. This study aims to contribute to this gap in the literature.

Unintentional Financial Socialization

Money is a major resource to individuals and families. Many family interactions and decisions center around the

acquisition, use, distribution, and allocation of money (Gudmunson & Danes, 2011). Within the parent–child relationship, much unintentional learning occurs during the interactions within the decision-making processes. Indicators of the potential for the unintentional occurrence and accumulation of this learning are the degree to which communication occurs between the child and parents about money and the confidence that is gained through the interactions and communication about money matters.

Communication With Parents About Money Matters. Parents can transfer values, norms, and attitudes about money to children via communication even though they may not explicitly be speaking about those issues (Bakir, Rose, & Shoham, 2006; Gudmunson & Danes, 2011). Jorgensen and Salva (2010) found that discussing money with parents significantly affected the financial knowledge and behavior of young adults. As teens matured to pursue college education, parental communication about money remained important in the parent–child relationship (Serido et al., 2010; Shim, Xiao, Barber, & Lyons, 2009). Additionally, parental communication positively influenced the cash and general money management of college students (Jorgensen, Rappleyea, Schweichler, Fang, & Moran, 2017). Shim et al. (2010) found that college students whose parents invested time talking to children about money and teaching them how to perform financial tasks (e.g., how to use a credit card, smart shopping) were more skilled in performing these tasks while in college. Communication with children about money matters may also impact their saving and giving behaviors. In a study using national data, authors found that adolescents from ages 12 to 18 were more likely to save for the future and donate to charity based on the level of communication with parents (Kim, LaTaillade, & Kim, 2011).

Confidence in Money Decisions. Confidence is an attribute that is fluid, has many developmental layers, and grows over time by a multitude of influences (Danes & Yang, 2014). The foundation for confidence for making money decisions lies within family socialization through child observation, modeling of parents, and open discussion about family financial management (Gudmunson & Danes, 2011). Confidence or lack thereof that evolves out of family socialization acts as a springboard to seek knowledge eliciting further confidence-building that then serves to motivate healthier financial behaviors. There is research that demonstrates these developmental pathways; for instance, Danes and Haberman (2007) found that female high schoolers' confidence in their financial decision-making increased after the infusion of knowledge. In contrast, male students' financial knowledge did not improve after the same knowledge infusion. These research findings indicate a gender difference in the financial socialization of children and the need for more investigation to discover what underlies such a trend in family socialization. Another finding about the developmental path related to this attribute is that of Henager and Cude (2016) who found that confidence in one's financial management behaviors increased the odds that young adults would save for their future by more than 30%.

Purposive Financial Socialization

Although certain kinds of unintentional and purposive socialization are hard to distinguish, establishing access to money is purposive whether it is the transfer of money from parent to child or through entrance into the formal or informal economic market. Both student-earned money and access to money through parents are indicators of purposive financial socialization in this study.

Access to Money Through Parents. The type of money one has access to may influence types of financial decisions made. The findings related to receiving an allowance and money as needed from parents and its impact on financial knowledge and behavior are mixed. One study found that children who received an allowance from parents were more sophisticated about spending and knowledgeable about pricing than peers who did not receive an allowance (Abramovitch, Freedman, & Pliner, 1991). Bucciol and Veronesi (2014) found that parental teaching about saving behaviors increased the probability that adult children would save by 16% and the most effective way to socialize children to save was through a combination of giving allowances, teaching strategies to save, and monitoring the usage of money. Kim and Chatterjee (2013) found that young adults, ages 18–21 who received an allowance were less worried about finances and had full responsibility for managing their finances, but they carried credit card balances. Moreover, in another study, high school seniors who received an allowance from parents scored on average 49% on a financial literacy exam, while their peers who did not receive an allowance scored 52% (Duguay, 2000).

Student-Earned Income. Having a job outside the household has been shown to positively impact financial knowledge and behavior. Earning money through the marketplace allows high school students to gain experience managing their own income. A study by Worthington (2004) showed that nonworking individuals typically had lower financial knowledge than working individuals. Moreover, working up to 20 hours per week positively influenced the financial literacy scores of high school students (Valentine & Khayum, 2005). In comparison to those who did not have jobs, working between 10 and 20 hours per week increased the financial literacy score of high school students by as much as 5% (Valentine & Khayum, 2005). Not only did having a job impact financial literacy, high schoolers who had jobs saved more money than their nonworking peers (Erskine, Kier, Leung, & Sproule, 2006).

Personal and Family Characteristics

Gender. Danes and Haberman (2007) found that male high school students saved and spent more money than their female peers. The purpose of saving also differed by gender: 42% of females reported saving for gift giving versus only 34% of males (Danes & Haberman, 2007). Not only did gender differences vary in how much was saved and the saving purpose, but male high schoolers felt more prepared than females to perform tasks related to homeownership, taxes, and investments (Clarke, Heaton, Israelsen, & Eggett, 2005). Danes and Haberman (2007) found that female high schoolers gained more financial knowledge pertaining to credit, auto insurance, and investments in a financial education course, but males had more knowledge prior to enrolling in the course.

Ethnicity. There is a growing body of literature that shows a link between ethnicity and financial knowledge and behavior (Chen & Volpe, 1998; Murphy, 2005). Students of color tend to have lower levels of financial knowledge (Lucey & Giannangelo, 2006) and engage in fewer financial behaviors that would lead to financial capability compared to White students (Chen & Volpe 1998; Murphy, 2005). The literature tends to investigate ethnic differences as White compared to non-White. Although there is a benefit in understanding the differences between these two groups, students of color are not a homogenous group. For example, a study of college students by Lyons (2004) found that African American and Latina females demonstrated riskier credit card behaviors than did White female students. Building on this emerging body of literature, the current study examines the differences between ethnic groups (White, African American, Asian, Hispanic/Latino/a, and Native American) involving financial knowledge and behavior.

Senior Status. Seniors in high school could be in the process of applying to colleges, determining how to fund postsecondary education or applying for jobs (Roderick, Coca, & Nagaoka, 2011). These students would be starting to rely less on their parents financially and thus starting to become financially self-reliant. With more independent financial responsibility, high school seniors would be gaining knowledge about financial matters and making more financial decisions (Erskine et al., 2006).

Rural. Based on whether students lived in rural or urban locations, their access to financial information and opportunities to make financial decisions may vary. In a study comparing rural and urban high school seniors, Valentine and Khayum (2005) found that rural high school students were more knowledgeable about housing rentals and food purchases, whereas urban students were more knowledgeable about auto insurance.

Hypotheses

A path model was performed to investigate the associations among unintentional and purposive financial socialization and financial knowledge and behavior of high school students. Since FFST indicates that financial knowledge is a precursor influencing financial behavior (Danes & Yang, 2014; Gudmunson & Danes, 2011) and there is literature to substantiate this relationship (Hilgert, Hogarth, & Beverly, 2003; Robb & Sharpe, 2009; Robb & Woodyard, 2011), indirect associations between unintentional and purposive financial socialization, and financial behavior through financial knowledge were also tested.

> Hypothesis 1: Unintentional financial socialization and purposive financial socialization is positively associated with financial knowledge controlling for personal and familial characteristics.
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> Hypothesis 2: Unintentional financial socialization and purposive financial socialization is positively associated with financial behavior through financial knowledge, controlling for personal and familial characteristics.

Methods

Sampling Procedure

Data for this study were collected through the evaluation of the High School Financial Planning Program (HSFPP) developed by the National Endowment for Financial Education (NEFE). The survey was sent to all 2,300 teachers who requested the curriculum for the 2010 academic year. The sample included 299 teachers who planned on using the HSFPP curriculum during the study timeframe and were willing to participate in the study. In these classrooms, 4,473 students completed evaluation surveys. Although data were collected on financial knowledge and behavior both before and after the learning infusion, only financial knowledge and behavior data before the classroom learning infusion were used in this study because the researchers wanted to learn about students' financial knowledge and behavior pertinent to participants' life experiences before the infusion of the curriculum information.

Sample Description

Among the students in the study, 46.3% were male and 51.2% were female. In the sample, 16.4% of the students were in 9th grade, 14.9% in 10th grade, 22.3% in 11th grade, and 44.8% in 12th grade. About half of the participants were White (54.3%), whereas 18.6% were African American, 15.1% were Hispanic/Latino, 2.8% Asian American, 1.8% Native American, and 4.6% chose the "other" category. About 21% of students lived in a city of over 100,000, 26.6% in a city of 25,000–100,000, 30.8% in a town with less than 25,000 people, 16.1% in a rural area, and 5% on a farm.

Dependent Variables

Subjective Financial Knowledge. Students' financial knowledge was assessed using six questions asked on a 5-point Likert-scale ranging from strongly disagree (1) to strongly agree (5). In order from the smallest to largest mean, they were: "I knew key questions to ask when shopping for auto insurance" (M = 2.40), "I understand why credit rating is important" (M = 3.06), "I thought about how much I need the things I bought" (M = 3.20), "I knew that paying off debt quickly means paying less interest" (M = 3.30), "I understood how checking account works" (M = 3.31), and "I understood how credit cards work" (M = 3.40). A financial knowledge index was computed summing these six items and the that ranged was from 6 to 30, M = 18.67 (SD = 5.4). Higher scores indicated that students felt more knowledgeable about finances. The Cronbach's alpha was .83.

Financial Behavior. Students' financial behavior was measured using seven questions asked on a 5-point Likert-scale ranging from almost never (1) to almost always (5). In order from the smallest to largest mean, they were: "I track where I spend money" (M = 2.70), "I had plans for how I spend money" (M = 2.80), "I was able to manage money" (M = 3.01), "I saved money for future needs" (M = 3.10), "I made savings goals for wants" (M = 3.13), "I repaid money I owed on time" (M = 3.50), and "I looked for best prices for things bought" (M = 3.53). A financial behavior index was created summing these seven items and the that ranged was from 7 to 35, M = 21.82 (SD = 6.17). Higher scores indicated that students practiced healthier financial behaviors. The Cronbach's alpha was .84.

Independent Variables

Communication With Parents About Money. Students' communication with parents about money matters was assessed using one question asked on a 5-point Likert-scale that ranged from almost never (1) to almost always (5). The mean for this variable was 2.59 (SD = 1.30) and the question asked was, "I discussed money matters with my family."

Confidence in Making Money Decisions. Students' financial confidence in making money decisions conceptually represents the dynamic aggregation of the unintentional financial socialization processes over time that occur in the family. Researchers cannot measure the concrete unintentional financial socialization that occurs through family interactions around money, but confidence in making money decisions, an outcome of those family interactions around money, can be measured (Bandura, 2001; Gudmunson & Danes, 2011). Students' confidence in making money decisions was assessed using one question, asked on a 5-point Likert-scale that ranged from almost never (1) to almost always (5). The mean for this variable was 3.22 (SD = 1.17) and the question asked was, "I felt confident about making money decisions."

Student-Earned Income. Student-earned income represented participants whose sole access to money was outside of the household. The variable was computed using two questions, "Do you have a part-time job?" and "Do

you ever earn money through other jobs such as babysitting, lawn care, snow shoveling, cleaning house or pet care?" A dichotomous variable was then created where 1 represented participant who earned income outside of the household, and 0 represented participants who did not. Approximately 17.3% of the participants had access to money only through income earned outside of the household.

Access to Money Through Parents. This variable represented students whose only access to money was through their parents via allowances or money as needed. The variable was computed using two questions, "Do you receive an allowance?" and "Do you receive money as needed from parents?" A dichotomous variable was then created where 1 represented students who accessed money via parents exclusively and 0 represented those who did not have money access through parents or combined access to money via earned income outside of the household. About 25% of students had access to money through parents exclusively.

Personal and Family Characteristics. Participants were asked to report their race/ethnicity. Five dummy variables were created to represent the race/ethnicity within the sample and the reference group was White. Participants were asked to report whether or not they were in 9th, 10th, 11th, or 12th grade. A dummy variable (senior status) was computed where 0 represented nonseniors and 1 represented seniors or students in 12th grade. Gender was coded as dichotomous (1 = male and 2 = female). Participants were asked to report the size of the community in which they lived. Urban communities were defined as being composed of more than 25,000 people and rural communities were defined as being composed of less than 25,000 people or on a farm. A dummy variable was computed where 0 represented living in urban communities and 1 represented living in rural communities.

Data Analysis

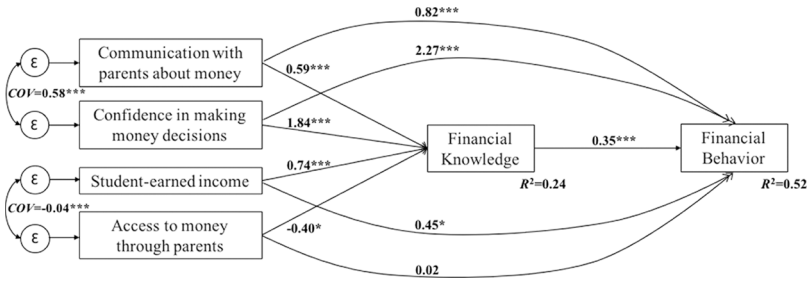
By employing path analysis, the influences of unintentional and purposive financial socialization on financial knowledge and behavior and the relationship between financial knowledge and behavior were estimated simultaneously (see Figure 1). Communication with parents about money and confidence in making money decisions were used as indicators of unintentional financial socialization through family interactions, and thus, their residuals were allowed to be correlated concerning a presence of omitted common factors affecting them. Student-earned income only and access to money through parents exclusively represented purposive financial socialization, and their residuals were also assumed to be correlated to each other. Personal and family characteristics were controlled for in the model (not shown in Figure 1). To confirm goodness-of-fit of the model, the model chi-square value, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) were calculated. A nonsignificant model chi-square value, a CFI value greater than 0.95, and an RMSEA less than 0.05 indicate a good fit of model to data (Acock, 2013).

Results

A path model (Figure 1) examined the associations among unintentional financial socialization through family interactions (i.e., communication with parents about money, confidence in making money decisions), purposive financial socialization (i.e., student-earned income and access to money through parents), and financial knowledge and behavior controlling for personal and family characteristics. Based on FFST and previous literature arguing financial knowledge as a precursor influencing financial behavior (Danes & Yang, 2014; Gudmunson & Danes, 2011; Hilgert et al., 2003; Robb & Sharpe, 2009; Robb & Woodyard, 2011), the model tested the indirect influences of unintentional and purposive financial socialization on financial behavior through financial knowledge in addition to estimating their direct influences on financial knowledge and behavior. Although the model Chi-square value was statistically significant, $\chi^2(4) = 27.80$, $p < .001$, the Chi-square statistic is very sensitive to sample size (Kline, 2011) and other model fit statistics indicated a good fit of model to the data, CFI = 1.00, RMSEA = 0.04 (90% CI: 0.02–0.05). An alternative model without the direct paths from financial socialization variables to financial behavior was tested, and the model with the direct paths fit the data better than the alternative model, $\chi^2_D(4) = 1644.21$, $p < .001$. Thus, the model with both indirect and direct paths was preferred.

Personal and family characteristics (i.e., gender, race, senior status, and residential area) were controlled for in the model (not shown in Figure 1). Female high school students tended to be less confident in making money decisions (B = -0.15, SE = 0.04, β = .06, $p < .001$) and less likely to access money through income earned outside of the household exclusively (B = -0.02, SE = 0.01, β = -.03, $p < .05$) and

Figure 1. Path model of unintentional and purposive financial socialization, financial knowledge, and financial behavior.



Note. Unstandardized coefficients are presented. Control variables (i.e., personal and family characteristics) are not shown. $\chi^2(4) = 27.80$, $p < .001$. CFI = 1.00. RMSEA = 0.04 (90% CI: 0.02–0.05).
*$p < .05$. **$p < .01$. ***$p < .001$.

through parents exclusively (B = -0.03, SE = 0.01, β = -.03, $p < .05$) compared to male high school students. Senior students were likely to communicate with parents about money more frequently compared to nonsenior students, B = 0.13, SE = 0.04, β = .05, $p < .01$. They were also more likely to access money through earned income exclusively (B = 0.12, SE = 0.01, β = .15, $p < .001$), less likely through parents exclusively (B = -0.03, SE = 0.01, β = -.04, $p < .01$) than nonsenior students. Hispanic/Latino (B = -0.12, SE = 0.05, β = -.04, $p < .05$) and Native American (B = -0.27, SE = 0.13, β = -.03, $p < .05$) students tended to be less confident in making money decisions compared to White students, whereas African American students had more confidence than White students, B = 0.18, SE = 0.05, β = .06, $p < .001$. Regardless of specific race, non-White students were less likely to access money through earned income exclusively (B that ranged from -0.10 to -0.06, $p < .001$ to .05) and more likely to access money through parents exclusively (B that ranged from 0.08 to 0.19, $p < .001$ to .05) compared to White students. Living in rural area was not significantly associated with financial socialization variables. Both of the residual covariances between communication with parents about money and confidence in making money decisions and between student-earned income and access to money through parents were significant (Figure 1), implying that these variables would be further explained by common causes of either unintentional or purposive financial socialization that were not included in the current model.

Subjective Financial Knowledge

High school students' subjective financial knowledge was positively associated with communication with parents about money (B = 0.59, SE = 0.06, β = .14, $p < .001$) and confidence in making money decisions (B = 1.84, SE = 0.07, β = .40, $p < .001$), meaning students who communicated with their parents about money and were confident in making money decisions demonstrated higher perceptions of their financial knowledge. Student-earned income was also positively associated with subjective financial knowledge (B = 0.74, SE = 0.20, β = .05, $p < .001$), which means that students having access to money only through income earned outside of the household tended to demonstrate higher perceptions of their financial knowledge compared to those with only access to money via parents.

On the other hand, having access to money through parents exclusively had a negative association with subjective financial knowledge (B = -0.40, SE = 0.17, β = -.03, $p < .05$), implying that students having access to money through parents exclusively were likely to have less financial knowledgeable than those with combined access to money and those with no access to money. Among personal and family characteristics, senior status and race were significantly associated with subjective financial knowledge. Senior students were likely to have better financial knowledge than nonsenior counterparts (B = 0.45, SE = 0.15, β = .04, $p < .01$). African American (B = -0.46, SE = 0.20, β = -.04, $p < .05$) and Hispanic/Latino (B = -0.88, SE = 0.21, β = -.06, $p < .001$) students tended to feel less financial

knowledgeable than White students. The model accounted for 24% of the variance in subjective financial knowledge.

Financial Behavior

Holding other variables constant, communication with parents about money ($B = 0.82$, $SE = 0.05$, $\beta = .18$, $p < .001$) and confidence in making money decisions ($B = 2.27$, $SE = 0.06$, $\beta = .43$, $p < .001$) were directly associated with high school students' financial behavior, meaning students who communicated with their parents about money and were confident in making money decisions tended to display a greater number of healthy financial behaviors. Student-earned income had a direct association with financial behavior, $B = 0.45$, $SE = 0.18$, $\beta = .03$, $p < .05$. This finding means that students having access to money only through income earned outside of the household were likely to display healthier financial behaviors compared to those with combined access to money and those having no access to money. On the other hand, having access to money through parents exclusively was not directly associated with financial behavior. There was a significant and positive direct relationship between financial knowledge and financial behavior, $B = 0.35$, $SE =$ 01, $\beta = .31$, $p < .001$.

The indirect and total effects of unintentional and purposive financial socialization variables on financial behavior are presented in Table 1. Supplementing the results on the direct associations between financial socialization and financial behavior, all of the financial socialization variables had significant indirect associations with financial behavior through subjective financial knowledge. Communication with parents about money ($B = 0.21$, $SE = 0.02$, $\beta =$ .04, $p < .001$) and confidence in making money decisions ($B = 0.64$, $SE = 0.03$, $\beta = .12$, $p < .001$) had significantly positive indirect associations through subjective financial knowledge. Student-earned income also had a positive indirect association through subjective financial knowledge ($B = 0.26$, $SE = 0.07$, $\beta = .02$, $p < .001$), whereas, having access to money through parents exclusively had a negative indirect association with financial knowledge ($B = -0.14$, $SE =$ 0.06, $\beta = -.01$, $p < .05$). All of the financial socialization variables except having access to money through parents exclusively had positive total effects on financial behavior as shown in Table 1. Every 1-point increase in communication with parents about money increased high school students' healthy financial behavior by 1.03-points ($B = 1.03$, $SE = 0.06$, $\beta = .22$, $p < .001$) and 79.6% of the effect was a direct effect. Increasing confidence in making money decisions by 1-point increases financial behavior by almost 3-points ($B = 2.92$, $SE = 0.06$, $\beta = .55$, $p < .001$) and 77.7% of the effect was direct. Students having access to money only through income earned outside of the household were likely to score 0.71-points higher financial behavior ($B =$ 0.71, $SE = 0.19$, $\beta = 0.04$, $p < .001$) compared to those with combined access to money and those having no access to money. About 63.4% of the effect was direct. Having access to money through parents exclusively, did not have a significant total effect on financial behavior. The model accounted for 52% of the variance in financial behavior.

Discussion and Implications

Using FFST (Danes & Yang, 2014), this study investigated the financial knowledge and behavior of high schoolers in the context of unintentional and purposive financial socialization. The following paragraphs will discuss the findings and implications.

Subjective Financial Knowledge

Students' personal and family characteristics impacted their subjective financial knowledge. Students who were African American and Hispanic/Latino felt less knowledgeable than their White peers. This finding is congruent with the literature demonstrating that students of color tend to have lower subjective financial knowledge compared to White peers (Lucey & Giannangelo, 2006). It is important to note that there were no statistically significant differences in subjective financial knowledge for Asian and Native American high school students and their White counterparts, warranting further investigation. FFST asserts that race and ethnicity can influence how parents parent their children. The role of culture may also be significant in the family financial socialization process (Gudmunson & Danes, 2011), and it may impact the financial knowledge of the next generation.

Being a high school senior contributed to participants' subjective financial knowledge. This could mean that as high schoolers were preparing to graduate, they were seeking and, thus, gaining more financial knowledge. They may be increasing their financial knowledge via processes, such as completing the Free Application of Federal Student Aid

TABLE 1. Unstandardized Effects of Unintentional Financial Socialization Through Family Interactions and Purposive Financial Socialization for Financial Knowledge and Financial Behavior (*N* = 4,473)

	Direct effects	Indirect effects	Total effects
Financial knowledge			
Unintentional financial socialization through family interactions			
Communication with parents about money → financial knowledge	0.59*	–	0.59*
Confidence in making money decisions → financial knowledge	1.84*	–	1.84*
Purposive financial socialization			
Student-earned income → financial knowledge	0.74*	–	0.74*
Access to money through parents → financial knowledge	-0.40***	–	-0.40***
Financial behavior			
Unintentional financial socialization through family interactions			
Communication with parents about money → financial behavior	0.82*	0.21*	1.03*
Confidence in making money decisions → financial behavior	2.27*	0.64*	2.92*
Purposive financial socialization			
Student-earned income → financial behavior	0.45***	0.26*	0.71*
Access to money through parents → financial behavior	0.02	-0.14***	-0.13

Note. Unstandardized coefficients are presented.
*$p < .05$. **$p < .01$. ***$p < .001$.

(FAFSA) or applying for jobs. They may also be learning new concepts that contribute to their financial knowledge as they were embarking on tasks that led them into the next stage of their lives. Unlike Valentine and Khayum (2005), living in a rural area had no significant impact on high schoolers' financial knowledge. The personal and family characteristics demonstrated their importance in the family financial socialization process as well.

Results indicate that unintentional financial socialization significantly contributed to the subjective financial knowledge of high schoolers. Participants who communicated with parents about money matters felt more financial knowledgeable than peers who did not. Previous research found that parental communication about money was an important aspect of family financial socialization for college students (Bakir et al., 2006; Gudmunson & Danes, 2011; Serido et al., 2010). This study contributes to the literature by showing that parental communication about money is also important for high school students. These interactions not only allow for a transfer of knowledge from parents to children but also for the transfer of values and norms about money.

High schoolers' confidence in their money decisions significantly affected their subjective financial knowledge in a positive manner. In this study, female students tended to be less confident in money decisions than male students, supporting the finding(s) of Danes and Haberman (2007). There is an emerging body of research on financial self-efficacy that demonstrates that those with higher self-efficacy tend to make healthier financial decisions (Robb & Woodyard, 2011). Although confidence in making money decisions and self-efficacy are two different constructs, confidence in making money decisions contributes to financial self-efficacy (Bandura, 2001). If a person believes that he/she is knowledgeable, it may impact the types of decisions made (Henager & Cude, 2016).

Accessing money through earning income outside of the household positively contributed to participants' subjective financial knowledge. That finding was in contrast to accessing money via parents only, which negatively impacted participants' perceptions. Findings suggest that those who earned their own income may be more conscious about increasing their financial knowledge through their job-holding experiences (Erskine et al., 2006). It may also mean that exposure to the marketplace provides participants with opportunities that were not available before (Worthington, 2004). For example, receiving a consistent paycheck via work may allow participants to access both checking and

saving accounts or allowing them to learn about banking which contributes to an increase in their knowledge.

Participants' access to money via parents only negatively impacted their subjective financial knowledge suggesting that there are still a lot of unknowns in this area of research. Past literature suggests that receiving allowances and money from parents had a positive or no impact on the subjective financial knowledge of their children (Abramovitch et al., 1991; Bucciol &Veronasei, 2014; Duguay, 2000; Kim & Chatterjee, 2013). A negative impact suggests that we need to investigate more fully the process of giving money to children and the parameters surrounding these interactions. Understanding the context and culture associated with giving children allowances and money is important to learn more about family financial socialization; for example, how frequently money is given to the child, whether parents explicitly discuss how to use the funds, and whether the money given is earned for completing chores. A limitation of this study is that we did not know the circumstances under which money was given from parents to children.

Financial Behavior

Participants' personal and family characteristics did not have any direct association with their financial behavior. In contrast to the literature, this finding was unexpected because it did not demonstrate differences in financial behavior based on gender and ethnicity (Chen &Volpe 1998; Hayhoe et al., 2000; Lucey & Giannangelo, 2006; Murphy 2005). Unintentional financial socialization indicators were significantly associated with participants' financial behaviors. High schoolers who communicated with parents about money matters displayed a greater number of healthy financial behaviors than peers who did not actively engage in this parent–child interaction. The critical nature of parent–child communication in financial matters is supported in the literature (Bakir et al., 2006; Serido et al., 2010; Shim et al., 2008). In addressing parent–child interactions according to FFST, this study shows that communicating with parents about money influences participants' financial behaviors. Moreover, this finding indicates the importance of understanding familial roles in the financial socialization process.

Subjective financial knowledge and one's confidence in making money decisions was also positively related to the degree of financial behaviors exhibited. Participants who were more confident in their money decision making and felt more knowledgeable displayed a greater number of healthy financial behaviors. The findings pertaining to the impact of subjective financial knowledge on behavior are still mixed in the literature (Borden et al., 2008; Jorgensen & Savla, 2010; Robb, 2011). This study contributes to the literature by showing that financial knowledge positively influences the number of healthy financial behaviors made by high school students when incorporating both unintentional and purposive financial socialization constructs. According to FFST, the contributions of personal and family characteristics, unintentional financial socialization through family interactions, and purposive socialization impact the transfer of knowledge and the development of healthy financial behavior outcomes.

Among purposive financial socialization indicators, only accessing money exclusively through earning income outside of the household was significantly associated with participants' financial behaviors. Participants who earned income outside of the household demonstrated a greater number of healthy financial behaviors than peers who did not have jobs. This finding supported the literature showing student-earned income had a positive and significant impact on high schoolers' financial behavior (Erskine et al., 2006; Valentine & Khayum, 2005). Access to money solely via parents had no impact on high schoolers' financial behaviors. This finding suggests that high schoolers that earned income outside of the household may be more cognizant of the type of financial decisions they need to make. It may be that they are learning the value of a dollar given that they invested time and energy to earn the wages.

This study is a step in reinforcing the importance of family financial socialization on the subjective financial knowledge and behavior of high school students. Parents who are talking to their children about money matters may impact their long-term financial well-being. Thus, it is important that parent education programs incorporate financial parenting into their curriculums, teaching parents how to financially socialize children to gain financial knowledge and practice making healthy financial decisions from a young age (Totenhagen et al., 2015). The majority of the literature on family financial socialization uses data gathered from college students who provide information about their lived experiences and their interactions and relationships with parents, thus reporting about their life (Clarke et al.,

2005; Jorgensen & Savla, 2010; Serido et al., 2010) rather than parents themselves reporting their own experiences of socializing their children about money. It is important to build the literature related to family financial socialization throughout the life course, expanding the current research that emphasizes the college student population. It is also important to get multi-informant data of both parents and their children to compare the similarities in their perceptions and experiences about financial socialization.

Given that students who created their own access to money via jobs outside of the household felt more knowledgeable and exhibited healthier financial behaviors than peers who did not, a recommendation would be for parents to encourage their children to seek employment in the marketplace, regardless of financial need. If this is not realistic throughout the academic year, high school students might work over the summer. This experience in the marketplace may provide opportunities for the student to increase their subjective financial knowledge and start making healthy financial decisions.

Schools may also partner with local businesses to offer jobs to high school students so that they have internship opportunities to increase their financial knowledge and practice healthier financial behaviors from a young age. STEP-UP (http://www.minneapolismn.gov/cped/metp/cped_stepup) is an example of such a program that partners with schools, businesses, and local government to create job opportunities for youth ages 14–21. The program is geared toward youths of color, who may have a disability or come from low-income or immigrant families. During the internship, students are paid to work in local businesses and nonprofit organizations. This is a model that other schools and communities might use to encourage students to seek employment over the summer where they are not only gaining financial knowledge and increasing the capability to make their own financial decisions, but also exploring career interests and building professional skills. Through a combination of unintentional financial socialization through family interactions and purposive financial socialization, high schoolers can acquire financial knowledge and practice healthier financial behaviors that may help them become more financially responsible young adults as they pursue postsecondary education or enter the workforce.

References

Abramovitch, R., Freedman, J. L., & Pliner, P. (1991). Children and money: Getting an allowance, credit versus cash, and knowledge of pricing. *Journal of Economic Psychology, 12*, 27–45.

Acock, A. C. (2013). *Discovering structural equation modeling using Stata*. College Station, TX: Stata Press books.

Bakir, A., Rose, G. M., & Shoham, A. (2006). Family communication patterns: Mothers' and fathers' communication style and children's perceived influence in family decision making. *Journal of International Consumer Marketing, 19*(2), 75–95. doi:10.1300/J046v19n02_05

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1–26. doi:10.1146/annurev.psych.52.1.1

Beutler, I., & Dickson, L. (2008). Consumer economic socialization. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 83–102). New York, NY: Springer Publishing.

Borden, L., Lee, S., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes and behaviors through seminar participation. *Journal of Family and Economics Issues, 29*, 23–40. doi:10.1007/s10834-007

Bowen, C. F. (2002). Financial knowledge of teens and their parents. In J. Lown (Ed.), *Proceedings of the 2002 Annual Conference of the Association of Financial Counseling and Planning* (pp. 93–101). Scottsdale, AZ: Association for Financial Counseling and Planning.

Bucciol, A., & Veronesi, M. (2014). Teaching children to save: What is the best strategy for lifetime savings? *Journal of Economic Psychology, 45*, 1–17.

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review, 7*(2), 107–128.

Clarke, M. C., Heaton, M. B., Israelsen, C. L., & Eggett, D. L. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal, 33*(4), 321–340. doi:10.1177/1077727X04274117

Crites, A. M., Behal, P. A., Haldeman, V. A., & Bennett, K. K. (2001). Changing financial behaviors through home study. *Journal of Financial Counseling and Planning, 12*(2), 15–21.

Danes, S. M. (1994). Parental perceptions of children's financial socialization. *Journal of Financial Counseling and Planning*, *5*, 27–146.

Danes, S. M., & Brewton, K. E. (2014). The role of learning context in high school students' financial knowledge and behavior acquisition. *Journal of Family and Economic Issues, 35*(1), 81–94. doi:10.1007/s10834-013-9351-6

Danes, S. M., Deenanath, V., & Yang, Y. (2016). Evaluation of financial literacy development of high school students: A longitudinal mixed methods study. In N. Koh (Ed.), *Approaches to teaching/interventions of financial literacy* (pp. 425–447). Singapore: Springer Publishing. doi:10.1007/978-981-10-0360-8_29

Danes, S. M., Garbow, J., & Hagen-Jokela, R. (2016). Financial management and culture: The American Indian Case. *Journal of Financial Counseling and Planning, 27*, 61–79. doi:10.1891/1052-3073.27.1.61

Danes, S. M., & Haberman, H. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Journal of Financial Counseling and Planning, 18*(2), 48–60.

Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Journal of Financial Counseling and Planning, 10*, 26–39.

Danes, S. M., Meraz, A. A., & Landers, A. L. (2015). Cultural meanings of resource management for Mexican–Americans. *Journal of Family and Economic Issues, 37*(4), 607–623, 1–17. doi:10.1007/s10834-015-9476-x

Danes, S. M., & Yang, Y. (2014). Assessment of the use of theories within the Journal of Financial Counseling and Planning and the contribution of the family financial socialization conceptual model. *Journal of Financial Counseling and Planning, 25*, 53–68.

Duguay, D. (2000, April). *Financial literacy declining among 12th graders [press release]*. Retrieved from http://www.jumpstartcoalition.org/upload/news.cfm?recordid=60

Erskine, M., Kier, C., Leung, A., & Sproule, R. (2006). Peer crowds, work experience, and financial saving behaviour of young Canadians. *Journal of Economic Psychology, 27*(2), 262–284.

Garrison, S. T., & Gutter, M. S. (2010). Gender differences in financial socialization and willingness to take financial risks. *Journal of Financial Counseling and Planning, 21*(2), 60–72.

Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues, 32*(4), 644–667.

Hancock, A. M., Jorgensen, B. L., & Swanson, M. S. (2012). College students and credit card use: The role of parents, work experience, financial knowledge, and credit card attitudes. *Journal of Family and Economic Issues, 34*(4), 369–381. doi:10.1007/s10834-012-9338-8

Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J., & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. *The Journal of Consumer Affairs, 34*, 113–133.

Henager, R., & Cude, B. J. (2016). Financial literacy and long-and short-term financial behavior in different age groups. *Journal of Financial Counseling and Planning, 27*, 3–19.

Hilgert, M., Hogarth, J., & Beverly, S. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin,* 309–322.

Johnson, E., & Sharreden, M. S. (2007). From financial literacy to financial capability among the young. *Journal of Sociology and Social Welfare, 34*(3), 119–146.

Jorgensen, B. L., Rappleyea, D. L., Schweichler, J. T., Fang, X., & Moran, M. E. (2017). The financial behavior of emerging adults: A family financial socialization approach. *Journal of Family and Economic Issues, 38*(1), 57–69. doi:10.1007/s10834-015-9481-0

Jorgensen, B. L., & Savla, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations, 59*(4), 465–478. doi:10.1111/j.1741-3729.2010.00616.x

Kim, J., & Chatterjee, S. (2013). Childhood financial socialization and young adults' financial management. *Journal of Financial Counseling and Planning, 24*, 61–79.

Kim, J., LaTaillade, J., & Kim, H. (2011). Family processes and adolescents' financial behaviors. *Journal of Family and Economic Issues, 32*(4), 668–679. doi:10.1007/s10834-011-9270-3

Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guilford.

Lewis, J., Mimura, Y., Mauldin, T., Rupured, M., & Jordan, J. (2008). Financial information: Is it related to savings and investing knowledge and financial behavior of teenagers? *Journal of Financial Counseling and Planning, 19*(2), 20–28.

Lucey, T. A., & Giannangelo, D. M. (2006). The importance of facilitating equitable financial education in urban society. *Education and Urban Society, 38*(3), 268–287.

Lyons, A. C. (2004). A profile of financially at-risk college students. *The Journal of Consumer Affairs, 38*, 56–80.

Mandell, L. (2006). *Financial literacy: If it's so important, why isn't it improving? (Policy Brief No 2006-PB)*. Retrieved from https://ssrn.com/abstract=923557

Moschis, G. P. (1987). *Consumer socialization*. Lexington, MA: Lexington Books.

Murphy, A. J. (2005). Money, money, money: An exploratory study on the financial literacy of black college students. *College Student Journal, 39*(3), 478–489.

National Report Card. (2015). *Is your state making the grade*? Retrieved from http://www.champlain.edu/centers-of-excellence/center-for-financial-literacy/report-making-the-grade

Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology, 31*, 55–63. doi:10.1016/j.joep.2009.10.003

Robb, C. A. (2011). Financial knowledge and credit card behavior of college students. *Journal of Family and Economic Issues, 32*(4), 690–698.

Robb, C. A., & Sharpe, D. L. (2009). Effect of personal financial knowledge on college students' credit card behavior. *Journal of Financial Counseling and Planning, 20*(1), 25–43.

Robb, C. A., & Woodyard, A. S. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning, 22*(1), 60–70.

Roderick, M., Coca, V., & Nagaoka, J. (2011). Potholes on the road to college high school effects in shaping urban students' participation in college application, four-year college enrollment, and college match. *Sociology of Education, 84*(3), 178–211. doi:10.1177/0038040711411280

Serido, J., Shim, S., Mishra, A., & Tang, C. (2010). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Family Relations, 59*(4), 453–464. doi:10.1111/j.1741-3729.2010.00615.x

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth Adolescence, 39*(12), 1457–1470. doi:10.1007/s10964-009-9432-x

Shim, S., Serido, J., Bosch, L., & Tang, C. (2013). Financial identity-processing styles among young adults: A longitudinal study of socialization factors and consequences for financial capabilities. *Journal of Consumer Affairs, 47*(1), 128–152.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology, 30*(6), 708–723. doi:10.1016/j.appdev.2009.02.003

Solheim, C. A., Zuiker, V. S., & Levchenko, P. (2011). Financial socialization family pathways: Reflections from college students' narratives. *Family Science Review, 16*(2), 97–112.

The Institute of College Access & Success. (2016). *Student debt and the class of 2016*. Washington, DC. Retrieved from http://ticas.org/sites/default/files/pub_files/classof2015.pdf

Totenhagen, C. J., Casper, D. M., Faber, K. M., Bosch, L. A., Wiggs, C. B., & Borden, L. M. (2015). Youth financial literacy: A review of key considerations and promising delivery methods. *Journal of Family and Economic Issues, 36*(2), 167–191. doi:10.1007/s10834-014-9397-0

Valentine, G. P., & Khayum, M. (2005). Financial literacy skills of students in urban and rural high schools. *Delta Pi Epsilon Journal, 47*, 1–10.

Worthington, A. C. (2004). Predicting financial literacy in Australia. *Financial Services Review, 15*, 59–79.

Xiao, J. J., Ford, M. W., & Kim, J. (2011). Consumer financial behavior: An interdisciplinary review of selected theories and research. *Family and Consumer Sciences Research Journal, 39*(4), 399–414. doi:10.1111/j.1552-3934.2011.02078.x

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