Financial Socialization Agents and Spending Behavior of Emerging Adults: Do Parents, Peers, Employment, and Media Matter?

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Using consumer socialization theory, this study examined the associations between perceived influence of parents, peers, employment, and media and spending behaviors of emerging adult college students from three different regions of the US: Northeast, South Atlantic, and Mountain regions. Data from the Emerging Adult Financial Capability Study (N = 2,322) were analyzed using structural equation modeling. Greater parental and employment influences perceived by the students were linked with more responsible spending behaviors, while greater peer and media influences were associated with less responsible spending behaviors. This study highlights the importance of the home and the workplace as the nexus for financial learning. This knowledge can help focus efforts to help future emerging adult college students learn responsible spending behaviors.

Keywords: consumer socialization theory, emerging adulthood, financial socialization, money management, responsible spending behavior

verspending by emerging adults (ages 18-30; Arnett, 2004) is negatively associated with psychological wellbeing (Andrews & Wilding, 2004; Berger et al., 2015; Taylor et al., 2011), physical wellbeing (Taylor et al., 2011), social wellbeing (Amato & Rogers, 1997; Britt et al., 2008; Cutrona et al., 2003), and financial wellbeing (Lyons, 2008; Robb, 2011). Overspending by emerging adult college students (i.e., the population focused on in the current study) and subsequent financial stress are also associated with lower academic performance (Andrews & Wilding, 2004; Britt et al., 2016; Broadbridge & Swanson, 2006) and decreased academic retention (Shaffer, 2014). It is important to examine spending behaviors of emerging adults given the financial struggles they are currently facing (e.g., majority moving back in with parents; Fry et al., 2020) which may be exacerbated by overspending. Indeed, many emerging adults do not have the financial knowledge, skills, and behaviors (e.g., appropriate spending) necessary to succeed (Babiarz & Robb, 2014).

Further, it is important to examine the spending behaviors of college students specifically given that a major contributor to emerging adults' lack of financial wellbeing is mounting student loan debt, rates of which are at an all-time high (Cilluffo, 2019).

Although there are many reasons why college students may engage in unsustainable spending behaviors, past research based on consumer socialization theory has revealed that spending behaviors are learned habits (Moschis & Churchill, 1978). Parents, peers, employment, and media are socialization agents that influence the financial attitudes, beliefs, and behaviors of individuals as they mature in society (Lanz et al., 2020; Pinto et al., 2005). The influence of these socialization agents on spending can be positive or negative; that is, socialization agents may encourage either appropriate spending or overspending. Additionally, spending behaviors may vary by geographic location, as different cultures and societies may encourage differing financial

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attitudes and values (Jorgensen et al., 2017). Previous studies that compared financial socialization across multiple locations did not examine influences from many socialization agents (Choi & La Ferle, 2004; Gutter & Copur, 2011), and previous studies that examined influences from the four socialization agents focused on in the current study (i.e., parents, peers, employment, and media) only analyzed individuals from a single location (Pinto et al., 2005). The current study addresses this gap in the literature by examining across diverse geographic locations the influence of four consumer socialization agents on spending behaviors of emerging adults.

One's ability to successfully transition to financial independence during emerging adulthood can have many developmental, relational, and health-related consequences (Arnett, 2004). Thus, it is important that we improve the financial behaviors and wellbeing of emerging adults, including college students. In order to identify potential intervention and education foci, it is important to understand *how* emerging adult college students are being financially socialized and by *whom*. It is also important to know how this might differ by geographic location so that education and intervention efforts might be targeted to the specific needs of emerging adult college students across various regions of the US.

Literature Review and Conceptual Framework Consumer Socialization Theory

Consumer socialization theory, which incorporates Piaget's theory of cognitive development (Ginsburg & Opper, 1969) and social learning theory (Bandura, 1971), was developed for the purpose of exploring the influence that socialization agents have on the financial attitudes and behaviors of adolescents (Moschis & Churchill, 1978). Consumer socialization theory has previously been used to study how product placement impacts emerging adults' spending behaviors via media, peer, and parental influences (Craig, 2013). It has also been used to examine the influence of various socialization agents on emerging adults' financial behaviors, attitudes, and knowledge (Shim et al., 2010). The degree and type of influence that each socialization agent (i.e., parents, peers, employment, and media) has on a person varies depending on developmental stage (Clark et al., 2001; John, 1999). The present study uses consumer socialization theory as a framework to understand how the socialization agents of parents, peers, employment, and media, as well as different regional locations, relate to the spending behavior of emerging adults.

Consumer Socialization Agents

Parents. Research has repeatedly found parents to be the most influential consumer socialization agent of their children (Clarke et al., 2005; Jorgensen & Savla, 2010; Mascarenhas & Higby, 1993; Serido et al., 2020; Sohn et al., 2012), with most American high school and college students reporting that they go to their parents for financial information (Lyons et al., 2006; Norvilitis & MacLean, 2010). Most emerging adults have received significantly more financial information from their parents than from their peers, school, work experience, or the media (Pinto et al., 2005; Shim et al., 2010). The consumer socialization parents provide for their children goes beyond teaching knowledge and attitudes—it also influences emerging adults' responsible spending behaviors (Hira 1997; Pinto et al., 2005). Several studies have found that college students' spending behaviors (such as credit card overspending and debt) are most influenced by their parents (Hira, 1997; Robb, 2011), with parent socialization during childhood having a positive effect on spending behaviors in emerging adulthood (Ammerman & Stueve, 2019; LeBaron et al., 2019; Pinto et al., 2005; Sirsch et al., 2020; Vosylis & Erentaitė, 2020).

Peers. Peer influences tend to gradually replace parents' influence on financial knowledge, attitudes, and behaviors as adolescents advance toward emerging adulthood (Bakir et al., 2006; Moschis & Churchill, 1978; Ward, 1974). While communication with parents about consumption declines as individuals age (Moschis & Churchill, 1978), communication about finances with peers increases because many college students are living alone or with peers for the first time instead of at home with their parents (Fry et al., 2020). Although the influence of peers on emerging adults' spending behaviors is relatively small compared to parent socialization (Norvilitis & MacLean, 2010), peer socialization has been shown to impact spending behaviors (Bachmann et al., 1993; Caron & Ward, 1975; Churchill & Moschis, 1979; Wang & Xiao, 2009). However, in contrast to parents' positive influence, peers tend to stimulate less responsible spending behaviors by encouraging materialism (Churchill & Moschis, 1979; Gudmunson & Beutler, 2012) and by recommending purchases (Bachmann et al., 1993; Caron & Ward, 1975).

Employment. According to the U.S. Bureau of Labor Statistics (2017), 21% of high school students and 38% of college students were employed in 2016. Little research has investigated the impact of employment on emerging adults' financial learning generally and on their spending behaviors specifically. However, the little that has been conducted has suggested that work experience may contribute to financial knowledge (Loderup et al., 2021; Mandell, 2008) and therefore be related to healthy spending behaviors (Loderup et al., 2021; Mortimer, 2003). In one study, working during high school significantly predicted greater financial knowledge during the first year of college (Shim et al., 2010). That being said, some research has suggested that discretionary income may give working youth and emerging adults a sense of "premature affluence" and predict poor spending habits (Bachman, 1983; Shim et al., 2010). Due to the limited amount of research conducted on this subject, the effect of employment on emerging adults' spending behaviors appears inconclusive. The current study will address this gap to better understand the relationship between employment and spending behaviors. It seems, though, that employment may facilitate financial learning and subsequent healthy spending behaviors.

Media. Although few emerging adults report media as their primary source of financial learning (Norvilitis & MacLean, 2010; Pinto et al., 2005), about one-third of college students use media to seek out financial information (Lyons & Hunt, 2003; Lyons et al., 2006). Loibl and Hira (2005) found that the use of media (e.g., Internet financial planning sites) to financially plan was positively correlated with better financial practices and higher levels of financial satisfaction. However, while online resources may positively impact emerging adults' spending attitudes and behaviors, other forms of media such as television appear to have a negative impact. For adolescents in particular, time spent watching television is directly linked with increased desire to purchase, increased brand recognition, increased levels of materialism, and increased spending (Buijzen & Valkenburg, 2000; Churchill & Moschis, 1979; Moschis & Churchill, 1978). This socialization comes primarily from viewing advertisements (Schor, 2004; Ward, 1974) but also from desiring the possessions of people on television (Schor, 2004).

The Influence of Regional Location

In addition to being influenced by the four socialization agents presented above, emerging adults' spending behaviors may also be influenced by geographic location. Upon examination of the different regional "divisions" delineated by the U.S. Census Bureau, Kahle (1986) found that each distinct cultural region differed on their most important values and attitudes (e.g., the value of security, self-respect, and being respected by others). Likewise, Jorgensen et al., (2017) found that financial achievement attitudes, financial power attitudes, and responsible spending behaviors differed across geographic regions of the US. Specifically, students from the Northeast were most likely to believe that money equals ability and effort, that money equals power and achievement, and that money equals intelligence, while students from the South Atlantic region were the least responsible spenders of any group (Jorgensen et al., 2017). Results from these studies illustrate the differences in values across geographic regions and suggest that consumer socialization based upon such values may also vary across regions, perhaps influencing spending behaviors. Previous financial socialization research has been limited in that studies have either 1) measured the influence of only one socialization agent (e.g., Choi & La Ferle, 2004; Gutter & Copur, 2011), or 2) utilized data from only one region (e.g., Pinto et al., 2005; Shim et al., 2010). In the current study, we studied the potential influence of four socialization agents (i.e., parents, peers, employment, media) on the spending behaviors of emerging adults from three different regions of the US: Northeast, South Atlantic, and Mountain regions. Evaluating the influence of four socialization agents across multiple regional locations has the potential to inform educators as they customize financial education to match the attitudes and practices most common in their respective regions.

Hypotheses

In summary, the spending behaviors of emerging adults may be influenced by four consumer socialization agents (i.e., parents, peers, employment, media) as well as by the values and attitudes commonly held in their geographic location. Thus, the purpose of the current study was to examine the varying associations of the four socialization agents with emerging adults' spending behaviors across diverse US geographic locations. Specifically, we aimed to determine 1) whether the four socialization agents (parents, peers, employment, media) positively or negatively influenced emerging adults' spending behaviors, and 2) whether geographic location (Northeastern region, South Atlantic region, Mountain region) moderated the associations

between socialization agents and spending behaviors. Previous research on how geographic location moderates the link between socialization agents and spending behavior is lacking, and the current study will help to fill this gap in the literature.

In terms of the respective influence of socialization agents, research has suggested that parents are the primary socialization agents of their children and have a positive influence on their children's spending behaviors. Additionally, evidence suggests that high school employment predicts greater financial knowledge during the first year of college (Shim et al., 2010) and thus may also have a positive influence on spending behaviors. In contrast, peers encourage materialism and therefore less responsible spending (Churchill & Moschis, 1979). Finally, media can have either a positive (e.g., increased financial literacy) or negative (e.g., increased materialism) influence on spending behaviors depending on the type of media consumed. However, social learning comes as advertisements are viewed (Schor, 2004; Ward, 1974) and the possessions of people on television are desired (Schor, 2004), which may lead to the formation of irresponsible spending habits. Thus, we formed three hypotheses, as follows:

H1a: The perceived influence of parents and employment will be positively associated with responsible spending.

H1b: The perceived influence of peers and media will be negatively associated with responsible spending.

H2: Regional location will function as a moderator of the association between perception of parental influence and responsible spending behaviors, with parents' influence being the most meaningful for students in the South Atlantic region.

Method

Data and Sample

The study sample comes from the Emerging Adult Financial Capability Study (EAFCS; Jorgensen et al., 2015). The EAFCS is a cross-sectional study of emerging adults using a pre-post-survey design with data gathered across multiple universities and courses. The EAFCS measures financial knowledge, attitudes, capabilities, behaviors, influences,

and personal demographics of emerging adults. It was administered using the online survey program Qualtrics Research Suite Version 32. Each participant completed a survey that included demographic characteristics, financial attitudes and beliefs, and spending behaviors, among other measures. The survey was taken as a "pre-test" prior to any financial course instruction, so responses were not impacted by the formal financial education programs at each university.

The current study sample comprised 2,322 undergraduate college students enrolled in a personal finance class at East Carolina University (ECU), Michigan State University (MSU), or Brigham Young University (BYU). The IRB was registered at East Carolina University under IORG0000418-IRB00000705. We used data collected over multiple semesters between 2013 and 2016. Students either received credit for taking the survey (as one of a few options) or as extra credit. The vast majority of the sample (87.6%) identified as being between 18-22 years old, with an additional 10.7% being 23-25 years old and 1.8% were between 26-29 years old. A handful (N = 84) of non-traditional college students also participated, whose ages ranged from 30 to 60; they were removed from the study, though we note that their removal did not alter the results in any meaningful way. The three sub-samples came from a university in the Northeastern region (N = 923; 39.8% of sample), a university in the South Atlantic region (N = 1,020; 43.9%), and a university in the Mountain region (N = 379; 16.3%). Fortyone percent of the sample was male and 59% was female. The majority of participants (72.6%) identified as White, 11.8% identified as Black, 3.2% identified as Asian, 2.5% identified as Hispanic, 0.7% identified as American Indian or Alaskan or Hawaiian Native, and the remaining participants (8.7%) selected the "other" category for their race/ ethnicity.

Variables

Spending Behavior. The dependent variable was spending behavior. Students' spending behaviors were assessed using three items developed by Cummins et al. (2009) and Begley (2009): "I spend less than my income" (Begley, 2009), "I buy things when I can't really afford them" (Begley, 2009), and "I spend more than I earn" (Cummins et al., 2009). Each item was scored on a 4-point Likert-type scale ranging from 1 (never) to 4 (always), with higher scores indicating better spending behaviors. The last two items were reverse

scored. Reliability for this construct was acceptable (α = .72). Further, as the items were taken from different scales, we ran a confirmatory factor analysis (CFA) to ensure that items worked together as expected. All factor loadings were above .6, indicating that they did adequately load onto a single construct.

Consumer Socialization Agents. The item used to assess socialization agents was "How much did you learn about managing your money from the following." Participants indicated the amount that they had learned from the following options on a Likert-type scale ranging from 1 (nothing) to 4 (a lot): "from your parents," "from friends," "at work/employment," and "from media." These represented four agents of consumer socialization commonly used in the literature (Pinto et al., 2005; Sohn et al., 2012).

Regional Location. Regional location was assessed using the university attended (i.e., South Atlantic, Northeastern, Mountain). To note, a recent analysis of 916,466 US students attending a four-year school revealed that the vast majority of US students attend a college or university either in their home state (72.1%) or in a bordering state (11.9%). Further, the median distance students travel to attend college is 94 miles (Mattern & Wyatt, 2009).

Control Variables. We controlled for gender and parents' income. Gender was a binary variable—male or female. Parents' income was measured with responses ranging from 1 (less than \$20,000) to 6 (over \$150,000).

Analyses

We first obtained descriptive statistics (bivariate correlations, means, and standard deviations) for all of our variables of interest (see Table 1). We then proceeded to test several models using structural equation modeling (SEM) in Mplus 8.3 (Muthén & Muthén, 2017). We first measured factor loadings for our latent variable, spending behaviors. We did this by modeling a confirmatory factor analysis (CFA) to assess model fit and proceeded to test for measurement invariance between the three regions. Following this, we ran a structural model to assess the associations between the four socialization agents and spending behaviors. To account for the ordinal nature of our variables, we used weighted least square mean and variance adjusted (WLSMV) estimators (Li, 2016).

Results

Testing if Geographic Location Acts as a Moderator

Prior to testing moderation, we first tested measurement invariance in spending behaviors between the three groups. While measurement invariance testing typically proceeds by comparing the metric model to the configural model, and the scalar model to the metric model, when working with ordinal data, some scholars argue that thresholds and loadings should only be constrained in tandem, resulting in a scalar to configural model comparison, while other scholars recommend still investigating metric invariance (Bowen & Masa, 2015; Muthén & Muthén, 2017). As such, we include a Scalar against Configural model comparison in reporting our results in addition to the standard metric against configural and scalar against metric comparisons.

TABLE 1. Descriptive Statistics and Intercorrelations for Study Variables (N = 2,322)

Variables	1.	2.	3.	4.	5.	6.	7.
1. Gender	_						
2. Parents' Income	08***	_					
3. PLMM from Parents	01	.22***	_				
4. PLMM from Peers	08***	.02	.17***	_			
5. PLMM from Media	02	05**	.05*	.33***	_		
6. PLMM from Job	.03	.01	.18***	.27***	.37***	_	
7. Resp. Spending Behaviors	09***	.13***	.22***	05^{*}	07***	.03	_
M	1.59	4.75	3.56	2.18	2.17	2.53	3.09
SD	.49	1.56	.69	.82	.85	.95	.68

Note. PLMM = Perception of learning about managing money; Resp. = Responsible.

p < .05. p < .01. p < .01. p < .01.

We were not able to establish measurement invariance beyond configural invariance between the three groups (Metric against Configural model: $\chi^2(4) = 21.093$, p < .001; Scalar against Metric Model: $\chi^2(10) = 50.838$, p < .001; Scalar against Configural model: $\chi^2(14) = 69.487$, p < .001). We further probed measurement invariance by investigating each group compared to one other group. While we were able to establish scalar invariance between the Mountain and Northeast regions (Metric against Configural model: $\chi^{2}(2) = 3.350, p = .187$; Scalar against Metric Model: $\chi^{2}(5)$ = 5.106, p = .403; Scalar against Configural model: $\gamma^2(7)$ = 8.696, p = .275), we were not able to establish measurement invariance between the Mountain and South Atlantic regions (Metric against Configural model: $\chi^2(2) = 13.041$, p = .002; Scalar against Metric Model: $\chi^2(5) = 33.578$, p <.001; Scalar against Configural model: $\chi^2(7) = 44.912$, p <.001) nor between the Northeast and South Atlantic regions (Metric against Configural model: $\chi^2(2) = 12.242$, p = .002; Scalar against Metric Model: $\chi^2(5) = 35.118$, p < .001; Scalar against Configural model: $\chi^2(7) = 44.573$, p < .001).

Given recommendations to assess additional measures of model fit when the change in chi-square is significant (D'Urso et al., 2021; Rutkowski & Svetina, 2017; Svetina et al., 2020), we also looked at the change in CFI and RMSEA. While various scholars propose a variety of cutoffs for ΔCFI and ΔRMSEA (see Svetina et al., 2020 for an overview of these recommendations), we utilized Rutkowski and Svetina's (2017) and recommendations for ordinal measurement invariance, which suggest the following cutoffs be used to further assess measurement invariance when the chi-square test is significant: Δ CFI >/= -.004 and \triangle RMSEA >/=.05. These metrics further suggested that spending behaviors was noninvariant across the three groups and between the South Atlantic region and the Mountain and Northeast regions (see Table 2). As we were not able to establish measurement invariance between the three regions or between the South Atlantic and the other

two regions, we did not probe further for moderation by region. Instead, we opted to include region as a control variable in our model.

Perceptions of Social Influences and Responsible Spending Behaviors

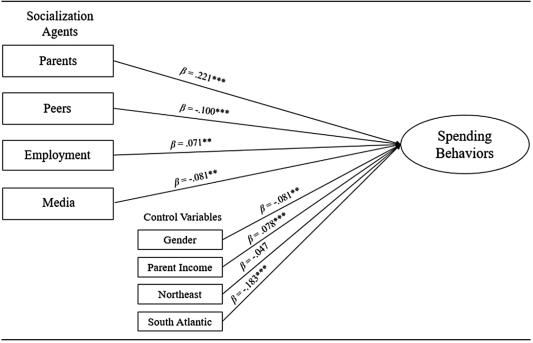
Next, to examine how varying perceived social influences are associated with responsible spending behaviors of US college students, we examined univariate descriptive statistics followed by bivariate intercorrelations using Pearson's coefficient. Descriptive statistics and intercorrelations are shown in Table 1. To note, descriptives and correlations are additionally present for the controls (i.e., gender, parents' income) used in the structural model. Among other significant results, correlations suggested that parental influence (r = .22, p < .001) was positively associated with more responsible spending behaviors. Conversely, results suggested that greater influence from peers (r = -.05, p = .016) and media (r = -.07, p < .001) on money management were significantly linked with less responsible spending behaviors. Influence from employment was not significantly correlated with spending behaviors.

In light of the significant correlations linking more responsible spending behaviors with greater parental influence and less peer and media influence, we next looked at the associations between these variables using structural equation modeling (see Figure 1). Consistent with previous studies examining factors associated with responsible spending habits (e.g., Jorgensen et al., 2017) and to ensure conservative estimation of findings, we controlled for gender and parents' income. Further, as we were not able to establish measurement invariance between the different regions and thus were not able to test it as a moderator, we instead opted to include it as a control variable. Due to the categorical nature of the geographic location variable (i.e., South Atlantic = 1, Northeastern = 2, Mountain = 3), we created two dummy-coded variables representing the South

TABLE 2. CFI and RMSEA for Spending Behaviors by Region to Assess Measurement Invariance

Group	CFI			RMSEA		
	Config.	Metric	Scalar	Config.	Metric	Scalar
All three regions	1	0.997	0.989	0	0.074	0.072
Mountain and Northeast regions	1	1	0.999	0	0.032	0.019
Mountain and South Atlantic regions	1	0.996	0.987	0	0.089	0.088
Northeast and South Atlantic regions	1	0.997	0.991	0	0.073	0.074

Figure 1. Structural model.



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

Atlantic Region and the Northeastern region, consistent with recommendations from Aguinis (2004) when using categorical variables. Model fit suggested that the model fit the data well based on conventional cut-off values for a number of model fit indices, including χ^2 (55) = 54932.84, p < .001, CFI = .998, TFI = .994, RMSEA = .049, SRMR = .019 (Little, 2013). The model explained 12% of the variance in spending behaviors ($R^2 = .118$).

Consistent with previous work (Jorgensen & Savla, 2010), our control variables suggested that, on average, men spent more responsibly than women ($\beta = -.081$, p = .002), and that participants who reported higher parental income also spent more responsibly ($\beta = .078$, p < .001). In regard to region, while those in the Northeast did not significantly differ from the Mountain region, those in the South Atlantic Region reported significantly poorer spending behaviors ($\beta = -.183$, p < .001).

Consistent with bivariate correlational analyses, we found that the perception of greater influence of parents (β = .221, p < .001) on managing money was significantly positively linked with more responsible spending behaviors; we also found a significant positive association between employment influence and responsible spending behaviors (β = .071, p = .004). This suggests that participants who believed that their

parents and their employment were influential in their learning about managing money tended to report more responsible spending behaviors. Alternatively, and consistent with our hypothesis, we found that the perception of greater influence of peers ($\beta = -.100, p < .001$) and media ($\beta = -.081, p = .002$) on managing money were significantly negatively associated with responsible spending behaviors. In other words, participants who believed that their peers and the media were very influential in their learning about managing money tended to report less responsible spending behaviors.

Discussions, Limitations, and Implications *Discussions*

The current study began with the plan to examine the associations of parents, peers, employment, and media with the spending behaviors of emerging adult college students by geographic location (South Atlantic region, Northeast region, Mountain region). We will discuss our results in terms of whether each hypothesis was supported.

The results of the structural equation model support both H1a and H1b; the four socialization sources uniquely predicted responsible spending behaviors such that greater parental influence on money management as well as greater employment influence predicted more responsible spending behaviors, while greater peer influence and greater media

influence predicted less responsible spending. Thus, participants who believed that their parents and employment highly influenced their financial learning tended to report more responsible spending behaviors, while those who believed that peers and media were highly influential tended to report less responsible spending behaviors. Additionally, higher parental income and being male were associated with more responsible spending in general.

Parents' positive impact on spending aligns with previous research (Jorgensen & Savla, 2010; LeBaron et al., 2018, 2020a; Pinto et al., 2005; Shim et al., 2010; Sohn et al., 2012) underscoring the need to equip parents with the tools to teach their children financial skills. Given the paucity of research on the subject, the finding that financial socialization from employment was positively linked with responsible spending offers needed support to similar findings (Loderup et al., 2021; Mandell, 2008; Mortimer, 2003). It also offers a counterpoint to dissenting arguments (Bachman, 1983; Shim et al., 2010) suggesting employment leads to premature affluence and poor spending behaviors. Our findings suggest that work experience may contribute to financial knowledge, increased awareness of personal finances, and healthy spending behaviors. However, it is possible that our finding differs from some previous studies due to the nature of our independent variable: the extent to which participants learned about managing their money from work/employment. Thus, our study does not necessarily provide evidence that work/employment is a common or a good place for young people to learn about money management, but rather that when emerging adult college students have learned a lot about money management at work, they tend to have healthy spending behaviors. Previous research suggests that the nature of emerging adults' work experiences may account for why some young people (e.g., those working in jobs they view as career-relevant) learn money management skills at work while others (e.g., those in manual labor or service jobs) may not (Bosch et al., 2016).

Though the influence of peers on spending has not been widely investigated, our findings align with previous research on the subject (Bachmann et al., 1993; Gudmunson & Beutler, 2012) that suggests peers in adolescence may encourage materialism and spending over saving. Also, because of previous conflicting findings regarding the influence of media use on spending (Buijzen & Valkenburg, 2000; Loibl & Hira, 2005; Schor, 2004), we

found it interesting that emerging adult college students who feel highly influenced by the media would report less responsible spending behaviors. Although Loibl and Hira (2005) found that use of some media when creating a financial plan was correlated with better financial practices, the majority of media consumption by emerging adults is most likely television, social media, and other online resources that present the message of materialism and spending over creating a financial plan. We do believe that more nuanced measures of type of media consumption might find differing results, with those seeking financial information online to be correlated with responsible spending behaviors. In sum and consistent with consumer socialization theory (Moschis & Churchill, 1978), our findings suggest that various financial socialization sources have differing associations with financial behaviors and outcomes.

We made H2 based on previous research (Choi & La Ferle, 2004; Gutter & Copur, 2011; Jorgensen et al., 2017; Kahle, 1986) and consumer socialization theory, which suggest that 1) financial socialization is influenced by the values of the socialization agents and 2) these values differ by region. However, we were unable to test this hypothesis because we failed to find measurement invariance for spending behaviors across geographic location. Specifically, we could not establish invariance between the Mountain and South Atlantic regions nor between the Northeast and South Atlantic regions. In subsequent analyses, region was treated as a control variable. We find it intriguing that we were unable to establish measurement invariance across these three regional groups. This variance suggests that there may be differences in how these questions regarding spending behaviors were understood or responded to. Future research should assess why these differences might exist and can inform future research on ways to adapt questions to regional specific needs.

Limitations and Future Research

Our paper has several limitations. First, our study only included students from three geographic regions of the United States. Future research should explore the influence of various financial socialization sources on spending among emerging adult college students of other US regions as well as internationally. Moreover, some may claim that the location in which someone attended college may not entirely capture geographic socialization (e.g., someone raised in Connecticut could go to school in the Mountain

region). We acknowledge this as a limitation and encourage future researchers to more accurately measure geographic socialization. Nevertheless, research indicates that the majority of people in the United States tend to attend college in a geographic location close to where they were raised, with 72% of US college students attending a school in their home state (Mattern & Wyatt, 2009), suggesting that our measure of geographic socialization may be fairly accurate. Further, while we did find that those in the South Atlantic region appeared to have poorer spending behaviors when compared to those in the Mountain region, as we were unable to establish measurement invariance between these two groups, we do not know whether this difference is due to actual differences in spending behaviors or whether there are differences in how participants from this region understood and responded to the items used to assess spending behaviors. Because our sample only included U.S. college students, our findings may not apply to U.S. emerging adults generally, and future research should examine these links among samples of non-college student emerging adults.

Our measure of the influence of various financial learning sources was retrospective. For greater accuracy, future research may benefit from measuring financial learning during childhood and following those participants longitudinally. Nevertheless, perception of influence may be more important than actual influence rendered. Indeed, an individual's belief or perception about an event often has much greater influence on behaviors and attitudes than what actually occurred (Hill et al., 2017). Additionally, social media has been found to influence spending behaviors and thus should be included as a socialization agent in future studies (Thoumrungroje, 2018; Wang et al., 2012).

Future research may also explore the impact of financial learning from parents, peers, employment, and media on other financial outcomes in addition to spending, such as credit card debt, saving, and student loans. Moreover, future work should consider the influence of race, religion, culture, parents' education level, and other potential predictors on financial education and spending behaviors. This is especially of note as the effect sizes for employment, peers, and media influence were small, while the effect size for parent influence were moderate (Hensley, 2015). Our sample was comprised of predominantly White college students, and it is possible that a combination of sociodemographic factors (e.g., race, socioeconomic status) is both reflective of U.S.

region and may impact the generalizability of our results to other demographics (e.g., first generation college students).

Additionally, the model explained only 12% of the variance in spending behaviors. Thus, there are likely other predictors of spending behaviors beyond these socialization agents that should be considered in future models, such as financial self-efficacy (a potential positive association; Palmer et al., 2021) and financial knowledge overconfidence (a potential negative association; Lee & Hanna, 2022). Finally, to more comprehensively capture the nuances of the influences of these socialization agents, researchers should examine how various interactions with peers (e.g., shopping together, discussing budgeting, loaning money), differing forms of media usage (e.g., online shopping, internet financial tutorials, following celebrities on social media), employment activities (e.g., working with HR on insurance and retirement, earning their own money), and parent interactions (e.g., direct teaching, role modeling, hands-on experiences) influence spending differently.

Implications for Practitioners

We hope these results will arm financial educators with a greater understanding of financial socialization experiences and subsequent spending behaviors among students, especially those in the Mountain, Northeast, and South Atlantic regions. Although we were unable to test region as a moderator, financial educators may want to consider potential region-specific values and how those might be impacting adolescents' financial learning and their future financial behaviors and wellbeing. For example, if a financial educator or practitioner lives in an area where owning expensive items and comparing oneself to neighbors is valued, they can address the idea of needs versus wants and the influence of marketing on our buying decisions while still being sensitive to these local values.

Having parents who were highly influential on students' financial learning predicted responsible spending behaviors. Financial education might be most effective at home with parents teaching their children about money through modeling good behavior, explicitly teaching financial principles, and providing experiential learning opportunities (LeBaron et al., 2019, 2020b; Rosa et al., 2018), and financial educators should find ways (e.g., incorporate assignments) to encourage and facilitate this at-home learning. Additionally, educators and extension professionals may see significant

benefits at both the family and community levels when creating and implementing programs that focus on teaching parents how to teach their children about money.

Financial socialization from being employed also had a positive influence on responsible spending. This finding contributes to the literature where mixed results may leave educators perplexed on whether or not to address financial education in the workplace. The current study clearly supports the idea of workplace education. Places of employment may provide key opportunities to teach employees money management skills. Research has shown that employees who manage their money better are less stressed at work, are more productive, and miss work less frequently (Joo & Grable, 2000). Employers might offer financial training to employees, as this may improve workplace performance due to decreased financial stress (Opler & Titman, 1994). Moreover, collaboration efforts between educators and employers to instruct employees regarding financial matters (e.g., quarterly budgeting trainings) may be beneficial.

Because financial socialization from media and peers tended to produce less responsible spending behaviors, financial educators may consider incorporating in their curricula exercises that help youth and emerging adults recognize and combat materialistic and compulsive messages from media and peer pressure. Given that many of their peers may not have employment or budgeting experience (U.S. Bureau of Labor Statistics, 2017), adolescents should be encouraged to exercise caution when seeking financial advice from their friends.

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