

Parental Financial Socialization, Financial Experiences, and Financial Behaviors: Comparing Asian American and International Asian College Students

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Paying for college expenses can be stressful for anyone, regardless of citizenship status. Asian American students and their parents may be negotiating with each other who will shoulder these expenses, while international Asian students often enter this country with their parents' financial support already established. This is the first study to specifically examine a large sample of Asian college students (n = 671) and explore how parents influence Asian students' financial attitudes, knowledge, and behaviors through a family financial socialization theoretical lens. Results show that financial socialization is positively associated with financial behaviors for all Asian college students. Findings are informative for college counselors, financial advisors, educators, and clinicians who work with Asian students and their parents.

Keywords: Asian, college students, family financial socialization, financial attitudes, financial behaviors, financial knowledge

Finances represent an ever-growing concern for families with college students in the United States. With higher education, too, comes a normative transition for families wherein parents and children begin to develop more adult/adult relationships. As college-aged children work to advance their autonomy and independence, parents work to loosen their control and authority (Lee & Liu, 2001; Lui, 2015; Nelson et al., 2015). During this time, making autonomous decisions (including those that demonstrate financial independence) is important for children; it confirms that they are growing up (Cao & Liu, 2017; Shim et al., 2010). Making financial decisions about how to finance college education is often difficult for everyone involved and can potentially have negative effects on students' mental health and academic performance (Ammerman & Stueve, 2019; Kim & Chatterjee, 2013; Kim et al., 2012; LeBaron et al., 2018; Lee et al., 2005; Szendrey & Fiala, 2018).

Students attending college have become increasingly diverse on campus over the last several years, echoing the

increasingly diverse racial and ethnic nature of the United States itself. Students enrolled with racial and ethnic minority (REM) designations increased from 15% in 1976 to more than 33% in 2010 (U.S. Department of Education, 2012). Asians have also increased faster than any other racial/ethnic group on college campuses (Snyder & Dillow, 2012; Wagner, 2019). However, a paucity of literature has investigated Asian college students per se. Therefore, it is important to understand who they are, and what the differences are among Asian college students' population on financial matters.

Asian Americans, as a minority group, are people who were born in the United States, or those who migrated here when they were younger than 12 years old. Older immigrants (e.g., parents and grandparents) tend to want to retain multiple aspects of their traditional culture (e.g., food, family structures, filial piety, financial practices), whereas children often want to integrate aspects of both conventional Eastern and modern Western cultures (Lee & Liu, 2001; Lee et al., 2005; Szapocznik & Kurtines, 1993). Conflicts between

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parents and children are especially common during adolescence and young adult years; areas of discord include the younger generations' choices in clothing, music, dating, marriage, career paths, family planning, and providing elder support (Arnett, 1999; Laursen et al., 1998; Lee et al., 2005). As Asian American children are admitted into college, these conflicts with parents can escalate significantly—resulting, too, in increased social and mental health problems like domestic violence and depression (Lau et al., 2002; Lee, 2000; Lee et al., 2000; Su et al., 2005; Tran et al., 2015; Uba, 2003).

Education, as a major and important topic in Asian population, has considerable impact on many Asian families. Asian Americans—especially those identifying with Chinese, South Korean, and Japanese origins—have the highest levels of academic achievement among all minorities (Chen, 2012; Sohn et al., 2012; Thomas et al., 2016). Chen (2012) reported that Asian Americans comprise up to 18% of enrollees at Ivy League schools; this is larger than their respective share of the nation's population (Thomas et al., 2016). It is important, however, to recognize that these data do not fully represent the diversity within the Asian population itself, because some Asian American subgroups—for example, Burmese, Cambodian, Hmong, Laotian, Thai, Vietnamese—do not tend to show high academic achievement in comparison to Chinese, South Korean, and Japanese students (Chen, 2012; Sohn et al., 2012; Thomas et al., 2016). Unlike Asians from China and Japan who immigrated to the United States (or chose to study abroad in the United States) with the explicit purpose of achieving higher education, other subgroups came here as refugees fleeing war, genocide, and/or political turmoil. Their arrival to the United States was one that was against their will, and many aspects of their culture (including values regarding and/or participation in education at any level) are in marked contrast with mainstream Western and Chinese/Japanese Asian American worldviews (Hune, 2002; Thomas et al., 2016). Therefore, identifying different subgroups within Asian populations (such as Asian American vs. international Asians) is crucial and important for researchers and financial professionals to understand the disparities among Asians in order to provide better help and support.

Asian Americans represent the largest minority presence in United States colleges and universities today (Thomas et al.,

2016). They represent young adults who are highly invested in pursuing their education. At the same time, they are balancing demands from their families-of-origin, who can work for or against their success. Understanding money can be one of the most stressful components of this journey; it is thereby important to understand how these students make financial decisions on their own (or with parents). A paucity of literature is available to inform these processes.

Guiding Theoretical Framework

Family financial socialization introduces the development of financial “values, attitudes, standards, norms, knowledge, and behaviors that contribute to financial viability and individual well-being” (Danes, 1994, p. 128). There are two major components in this model: family socialization processes (including personal and family characteristics contributing to family interaction and purposive financial socialization), and financial socialization outcomes (including financial behaviors and financial well-beings) (Gudmunson et al., 2016). Specifically, the model explains how family socialization advances throughout the development of children by nature of (a) the process of “acquiring” the set of financial attitudes, knowledge, values, and norms from early family interaction (e.g., parents and family of origins), and (b) the process of “modifying” these financial affairs into their adulthood based on their current financial situation (Gudmunson et al., 2016). Scholars have established this model's generalizability across different ages, races, and ethnicities (Hancock et al., 2013; Payne et al., 2014; Sohn et al., 2012).

Family socialization—and parental financial socialization per se—also influences the development of children's financial attitudes, knowledge, and capabilities. Children learn what their parents model to them through everyday life (e.g., paying the mortgage, buying groceries, managing credit cards) and when faced with financial challenges (e.g., job loss, a housing crisis). It means the children are “acquiring” their fundamental financial information from their parents. As children grow up and move out of their parents' house for college, they start to learn how to manage their own finances (e.g., manage bank account such as track monthly payment, paying student loans, managing credit card debt). At that time, young adults begin to “modify” the existing financial information that they learned from early parental financial socialization, and create their own financial strategies based on their current financial

situations (e.g., financial stress). Children's ways of perceiving and handling money evolve accordingly (Danes & Yang, 2014). Due to increasing student loan debt and limited parental financial socialization (Nica & Mirică, 2017), rising financial stress might impact young adults' financial behaviors. The purpose of the current study was thereby to explore how parental financial socialization plays a role in the financial outcomes (e.g., financial behaviors) experienced by young Asian college students in the United States.

Research Questions

Little research has focused on parental financial socialization, stress, and financial behaviors of Asian populations, especially among Asian college students. This study explored these foci, testing Asian American college students and international Asian college students separately. The guiding questions for this investigation were as follows: (a) *What are the differences in financial attitudes and financial knowledge between Asian American college students and international Asian college students?* (b) *How do early financial experiences in families (e.g., role modeling, direct teaching) influence Asian college students' financial behaviors?* and (c) *How are financial socialization and financial stress associated with financial behaviors when controlling for family demographic variables (i.e., parental education, parental annual income)?*

Methods

Data

Data came from the 2014 *National Student Financial Wellness Study* (NSFWS, 2016). The NSFWS focused on financial attitudes, practices, and knowledge of college students across several institutions of higher education in the United States. Fifty-two (52) institutions—including 4-year public colleges/universities ($n = 32$), 4-year private colleges/universities ($n = 12$), and 2-year public colleges ($n = 8$)—were included (The Ohio State University, Office of Student Life, 2016). The study presented here was a separate part of the larger NSFWS investigation; it was approved by the University of Minnesota's Institutional Review Board (IRB).

Respondents

The total sample included 18,792 undergraduate students; collectively they represented a response rate of 11.5%. From this dataset, 4.3% ($n = 815$) of respondents self-identified their race/ethnicity as Asian American/Asian (including

East, South, and Southeast Asia); Middle Eastern and Arab American groups were not included).

To be included in this study, the following criteria were employed. Respondents self-identified their race/ethnicity as Asian American/Asian (including East, South, and Southeast backgrounds) and were a traditional college-age student (18–23 years old). Additionally, this study was also interested in examining Asian college students by their citizenship status. Respondents were asked to answer if they were a “Natural born U.S. citizen,” “Naturalized U.S. citizen,” or “Permanent Resident U.S.”—meaning they were classified as “domestic” or U.S. college students. Respondents who indicated that they were a “citizen of a country other than U.S.” were classified as “international” college students. These two citizenship criteria were established: (a) “domestic or U.S. college student” (73.3% Asian American college students, $n = 492$) and (b) “International” (26.7% international Asian college students, $n = 179$). The final sample, then, included 671 Asian college students.

Variables Generated by Factor Analyses

To select questions regarding students' financial management behaviors, we conducted an exploratory factor analysis (EFA; see details in Table 1) to measure the factor structure that emerged from the data. We followed procedures used in the NSFWS to determine college students' financial wellness (The Ohio State University, Office of Student Life, 2016; see below): first of all, 33 additional questions were selected because they (a) measured psychological status, which correlated with financial wellness, and (b) were designed as binary, ordinal, or continuous in scale.

Second, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy (0.927) and Bartlett's test of sphericity ($p < .0001$) showed that the Asian population sample was appropriate (KMO is close to 1, Bartlett's test of sphericity is statistically significant) for analysis using EFA (Howell, 2012; Leech et al., 2005). Researchers applied EFA via principal axis factoring and a promax rotation, meaning that all of the selected items were correlated. Items were eliminated from the final factor solution if they showed low communalities ($< .30$). Variable loadings of factors needed to be larger than 0.50 for inclusion (Fabrigar et al., 1999). Cronbach's alpha results showed high reliability ($> .89$).

TABLE 1. Factor Loadings and Communalities Based on a Principal Axis Factoring Analysis With Promax Rotation With Kaiser Normalization for 22 Items From the Short Version of the Study on Collegiate Financial Wellness (SCFW) (*n* = 671)

Variables	Financial Management Behaviors	Financial Stress	Parental Financial Socialization
I have a weekly or monthly budget that I follow.	0.83		
I track my spending in order to stay within my budget.	0.99		
I track all debit card transactions/checks to balance my account.	0.74		
I pay my bills on time every month.	0.82		
I add to my savings on a regular basis.	0.81		
I rely on family members for financial advice.	0.77		
I rely on friends for financial advice.	0.91		
I am confident that I can manage my finances.	0.89		
I manage my money well.	0.76		
I have enough money to participate in most of the same activities as my peers do.	0.89		
I have enough money to participate in most activities that I enjoy.	0.81		
I regularly spend more money than I have by using credit or borrowing.	0.89		
In the past 3 months, I purchased something expensive that I wanted, but did not need.	0.82		
I feel stressed about my personal finances in general.		0.98	
I worry about being able to pay my current monthly expenses.		0.85	
I worry about having enough money to pay for school.		0.88	
When I think about my financial situation, I am optimistic about the future.		0.85	
After graduation, I will be able to support myself financially.		0.80	
I think that the cost of college or university is a good investment for my financial future.		0.80	
My parents or guardians were comfortable talking about money with me.			0.85
My parents or guardians told me what I needed to know about money management.			0.76
My parents or guardians were role models of sound financial management.			0.96
Reliability (α)	.97	.94	.89

Note. “My parents or guardians were comfortable talking about money with me” is significantly different between Asian American and International Asians.

The final items used for the present study included 22 questions (of the 33 items originally selected) that related to college students’ financial wellness. All three factors (personal financial management behaviors, parental financial socialization, and financial stress) met the criteria for communalities greater than 0.30 and variable loadings greater than 0.5; see Table 1. For each of these factors, a regression model score was calculated and used in the analysis.

Dependent and Independent Variables

Table 2 present specifications of dependent and independent variables. In this study, personal financial management behavior is the dependent variable. Parental financial socialization and financial stress are independent variables. Other independent variables are below.

TABLE 2. Description of Dependent Variable and Independent Variables (n = 671)

Variables	Description of Variable
Dependent variable	
Personal financial management behaviors	A regression score was calculated from the EFA for each of the respondents
I have a weekly or monthly budget that I follow.	
I track my spending in order to stay within my budget.	
I track all debit card transactions/checks to balance my account.	
I pay my bills on time every month.	
I add to my savings on a regular basis.	
I rely on family members for financial advice.	
I rely on friends for financial advice.	
I am confident that I can manage my finances.	
I manage my money well.	
I have enough money to participate in most of the same activities as my peers do.	
I have enough money to participate in most activities that I enjoy.	
I regularly spend more money than I have by using credit or borrowing.	
In the past 3 months, I purchased something expensive that I wanted, but did not need.	
Independent variables	
Parents' characteristics	
What is the highest level of education your father/-guardian 2 has obtained?	0 = Mother (father)/guardian(s) did not complete college
What is the highest level of education your mother/-guardian 1 has obtained?	1 = Mother (father)/guardian(s) completed college or higher
What is your parent(s)/ guardian(s) current annual income?	1 = Less than \$15,000 2 = \$15,000–\$29,999 3 = \$30,000–\$39,999 4 = \$40,000–\$59,999 5 = \$60,000–\$79,999 6 = \$80,000–\$99,999 7 = \$100,000–\$149,999 8 = \$150,000–\$199,999 9 = \$200,000 or higher
Students characteristics	
Age	Continuous variable
Gender	1 = Male 0 = Female
How many years have you been enrolled in postsecondary or higher education (not counting any postsecondary work completed in high school)?	1 = 1 year 2 = 2 year 3 = 3 year 4 = 4 year 5 = 5 or more

(Continued)

TABLE 2. Description of Dependent Variable and Independent Variables (n = 671) (Continued)

Variables	Description of Variable
What is your employment status during the academic year?	0 = Not employed 1 = Employed full-time/part-time
Financial situation	
Financial stress	
I feel stressed about my personal finances in general.	A regression score was calculated from the EFA for each of the respondents
I worry about being able to pay my current monthly expenses.	
I worry about having enough money to pay for school.	
When I think about my financial situation, I am optimistic about the future.	
After graduation, I will be able to support myself financially.	
I think that the cost of college or university is a good investment for my financial future.	
Parental financial socialization	
My parents or guardians were comfortable talking about money with me.	A regression score was calculated from the EFA for each of the respondents
My parents or guardians told me what I needed to know about money management.	
My parents or guardians were role models of sound financial management.	
Financial knowledge	
Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After 1 year, would you be able to buy more than today, exactly the same as today, or less than today with the money in this account?	1 = More than today 2 = Exactly the same as today 3 = Less than today 4 = Don't know
Suppose you have \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much would you have in the account if you left the money to grow?	1 = More than \$102 2 = Exactly \$102 3 = Less than \$102 4 = Don't know
Suppose you borrowed \$5,000 to help cover college expenses for the coming year. You can choose to repay this loan over 10 years, 20 years, or 30 years. Which of these repayment options will cost you the least amount of money over the length of the repayment period?	1 = 10-year repayment option 2 = 20-year repayment option 3 = 30-year repayment option 4 = Don't know
All paycheck stubs show your gross pay (the total amount you earned before any taxes were taken out for the pay period) and your net pay (the amount of your check after all taxes). The taxes that are commonly taken out include federal, state, and local income tax, Social Security tax, and Medicare tax. On average, what percentage of your income would you expect to receive as take-home pay?	1 = 100% 2 = 90%–99% 3 = 80%–89% 4 = 70%–79% 5 = Don't know

(Continued)

TABLE 2. Description of Dependent Variable and Independent Variables (n = 671) (Continued)

Variables	Description of Variable
Which of the following make up the TWO largest components of a credit score? (Amounts owed, new credit, types of credit used, length of credit history, payment history, don't know)	1 = Selected 0 = Did not select
Demographic characteristics	
Age	Numeric value
Years enrolled	
How many years have you been enrolled in postsecondary or higher education (not counting any postsecondary work completed in high school)?	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 or more
GPA	Numeric value
Currently live	1 = On campus in residence halls or college/university-owned apartment or housing 2 = On campus in sorority or fraternity housing (e.g., floor within resident hall, college/university-owned apartment or housing) 3 = Off campus in sorority or fraternity house or residence 4 = Residence within walking distance of campus (e.g., apartment or house not owned by university)
Live with	1 = Alone
Who do you currently live with?	2 = Roommates 3 = Parent(s) or guardian(s) 4 = Spouse or partner 5 = My child or children 6 = Other family members 7 = More than one of the above
Native language	1 = Yes
Is English your native language (the first language you learned to speak as a child)?	2 = No 3 = I learned both English and another language at the same time
Student loan	1 = Yes
Do you now have or have you ever had a student loan to pay for your college?	2 = No 3 = Don't know

Note. EFA = exploratory factor analysis; GPA = grade-point average.

Parents' and Students' Characteristics. Parental characteristics included parents' education levels and annual income. Students' characteristics included age, gender, years enrolled in college, and employment status.

Financial Situation. Financial situation included financial stress and parental financial socialization. Financial stress represents whether a person can fulfill their financial

demands. Respondents either agreed or disagreed to six statements relating to this. To measure parental financial socialization, survey questions correlating to parental financial socialization were based on parent-child communications about finances.

Financial Knowledge. Students' financial knowledge was assessed through questions about interest rates, repaying

student loans, taxes, and credit scores (from which a total score was calculated).

Descriptive Characteristics. Descriptive characteristics included respondents' citizenship status, age, years enrolled in college, grade-point average (GPA), where they lived, who they lived with, native language (and if they spoke another language), and whether they had a student loan.

Analysis Procedures

T-tests were used to compare differences in financial knowledge and stress between Asian college students by their citizenship status. To explore the influence(s) of parents' and students' characteristics, along with parental financial socialization and stress variables on students' financial behaviors, a hierarchical regression was employed. In this regression, parental variables were entered first, then students', and then their financial situation. In order to examine whether the two hierarchical regression analyses (i.e., Asian American college students and international Asian college students) were actually different from each other, a Chow test was used to test the differences. This test examined whether the coefficients of the two regression models were the same across both groups, meaning there is no difference in financial management behaviors between Asian American college students and international Asian college students (Chow, 1960).

Results

This investigation consisted of 671 Asian college students (492 Asian Americans and 179 international Asians). Asian American students were younger than their international counterparts ($M = 19.94, SD = 1.43; M = 20.66, SD = 1.56$ respectively, $t(669) = -5.37, p < .0001$). Both groups were similar in years enrolled in college ($M = 2.50, SD = 1.21; M = 2.66, SD = 1.22$ respectively) and GPA ($M = 3.33, SD = .57; M = 3.38, SD = .47$ respectively). Regarding financial aid, 37% of Asian college students indicated that they have used student loans to pay for college (including 235 Asian American college students and 13 international Asian college students). About 60% of Asian students reported that they did not have student loans, which included 241 Asian American and 156 international Asian college students ($\chi^2(2) = 91.92, p < .001$).

Regarding current living status, approximately 71% of Asian college students stated they lived with "roommates,"

about 10% reported they lived with "parents," and roughly 8% claimed that they lived "alone." In addition, international Asians identified a higher percentage of living with "roommate" (77.65%) and "alone" (12.29%) than Asian Americans (68.84% and 6.72%, respectively). Further, Asian Americans claimed a higher percentage in living with "parent" (12.83%) than international Asians (2.79%). There was no significant differences between Asian Americans and international Asians regarding parental financial socialization (Table 3).

Financial Attitudes, Financial Knowledge, and Financial Experiences

T-tests showed that there was a significant difference in the financial attitudes for Asian American and international Asian college students ($M = 2.43, SD = .58; M = 2.34, SD = .50$, respectively; $t(657) = 1.84, p = .021$). They also showed statistically significant differences in their financial knowledge: Asian American students scored higher in said knowledge than international Asian students ($M = 2.87, SD = 1.39; M = 2.47, SD = 1.22$, respectively, $t(655) = 3.33, p < .001$) (Table 4).

To better understand financial experiences, it is helpful to know whether Asian college students consulted with financial agents. Asian American college students were more likely to meet financial consultants than international Asian college students, such as a financial aid counselor ($\chi^2 = 46.35, p < .001$), financial advisor ($\chi^2 = 20.68, p < .001$), credit counselor ($\chi^2 = 10.84, p < .05$), investment advisor ($\chi^2 = 9.60, p < .05$), attorney ($\chi^2 = 8.47, p < .05$), insurance agent ($\chi^2 = 38.68, p < .001$), tax advisor ($\chi^2 = 8.31, p < .05$), and/or banker ($\chi^2 = 21.15, p < .001$). In response to the question if one had met with a peer counselor, there was no significant difference between Asian American and international Asian college students (Table 5).

Financial Socialization and Financial Stress

A three-step hierarchical multiple regression was applied to measure whether parents' (education level, income) and students' characteristics (age, gender, years enrolled) could predict financial management behaviors. First, parents' characteristics were measured; $F(3, 431) = .202, p = .895$. Second, students' characteristics variables were added into model 2; $F(8, 426) = .322, p = .958$. The last stage added the financial situation variables

TABLE 3. Descriptive Statistics for Asian American College Students and International Asian College Students (n = 671)

Variable	Asian American College Students (N = 492)		International Asian College Students (N = 179)		Test Statistic for Differences Between Samples (N = 671)
	M	SD	M	SD	
Age	19.94	1.43	20.66	1.56	$t = -5.37^{***}$
Years enrolled	2.50	1.21	2.66	1.22	$t = -1.514$
GPA	3.33	.57	3.38	.47	$t = -1.01$
Students loan					
Do you now have or have you ever had a student loan to pay for your college?					$\chi^2 = 91.92^{***}$
Yes	235 (94.8%)		13 (5.2%)		248 (37%)
No	241 (60.7%)		156 (39.3%)		397 (59.3%)
Don't know	16 (64%)		9 (36%)		25 (3.7%)
Total	492 (73.4%)		178 (26.6%)		670 (100%)
Where do you currently live?					$\chi^2 = .34$
On campus in residence halls or college/university-owned apartment or housing	161 (33.06%)		68 (37.99%)		229 (34.38%)
On campus in sorority or fraternity housing (e.g., floor within residence hall)	5 (1.03%)		2 (1.12%)		7 (1.05%)
Off campus in sorority or fraternity house or residence	35 (7.19%)		19 (10.61%)		54 (8.11%)
Residence within walking distance of campus (e.g., apartment or house not owned)	161 (33.06%)		50 (27.93%)		211 (31.68%)
Residence outside of walking distance of campus (e.g., apartment or house not owe)	125 (25.67%)		40 (22.35)		165 (24.77%)
Total	487 (73.12%)		179 (26.88%)		666 (100%)
Who do you currently live with?					$\chi^2 = 31.42^{***}$
Alone	33 (6.72%)		22 (12.29%)		55 (8.21%)
Roommate	338 (68.84%)		139 (77.65%)		477 (71.19%)
Parent	63 (12.83%)		5 (2.79%)		68 (10.15%)
Spouse/partner	5 (1.02%)		3 (1.68%)		8 (1.19%)
Child	0 (0.00%)		2 (1.12%)		2 (0.3%)
Other family members	15 (3.05%)		1 (0.56%)		16 (2.388%)
More than one of the above	37 (7.54%)		7 (3.91%)		44 (6.57%)
Total	491 (73.28%)		179 (26.72%)		670 (100%)
Parental financial socialization					
My parents or guardians were comfortable talking about money with me.					$t = .29$
Strongly disagree	22 (4.5%)		10 (5.6%)		
Disagree	69 (14.0%)		20 (11.2%)		
Agree	212 (43.1%)		84 (46.9%)		
Strongly agree	187 (38.0%)		63 (35.2%)		
Total	490 (73.5%)		177 (26.5%)		

(Continued)

TABLE 3. Descriptive Statistics for Asian American College Students and International Asian College Students (*n* = 671) (Continued)

Variable	Asian American College Students (<i>N</i> = 492)		International Asian College Students (<i>N</i> = 179)		Test Statistic for Differences Between Samples (<i>N</i> = 671)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
My parents or guardians told me what I needed to know about money management.					<i>t</i> = -3.62
Strongly disagree	31 (6.3%)		8 (4.5%)		
Disagree	98 (19.9%)		17 (9.5%)		
Agree	229 (46.5%)		84 (46.9%)		
Strongly agree	130 (26.4%)		69 (38.5%)		
Total	488 (73.3%)		178 (26.7%)		
My parents or guardians were role models of sound financial management.					<i>t</i> = .41
Strongly disagree	30 (6.1%)		9 (5.0%)		
Disagree	56 (11.4%)		24 (13.4%)		
Agree	233 (47.4%)		88 (49.2%)		
Strongly agree	169 (34.3%)		56 (31.3%)		
Total	488 (73.4%)		177 (26.6%)		

Note. *N* = 671.

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

TABLE 4a. Differences in Financial Knowledge and Financial Stress Between Asian College Students (*n* = 671)

	Asian American College Students		International Asian College Students		<i>df</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Financial knowledge	2.87	1.39	2.47	1.22	655	3.33***	.001	0.31
Financial stress	2.43	.58	2.34	.50	657	1.84*	.021	1.22

Note. *N* = 671.

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

(financial stress and financial socialization) which contributed to a significant difference in financial behaviors; $F(10, 424) = 7.026, p < .0001$. More specifically, financial stress was negatively associated with financial behaviors ($\beta = -.123, p < .05$), and financial socialization was positively related to financial behaviors ($\beta = .391, p < .0001$) (Table 6).

In order to determine the interactional differences on each independent variable between Asian American and international Asian college students, a Chow test was used (Chow, 1960). Interaction among Asian college students would be

analyzed only if the relationship between the dependent variable (i.e., personal financial management behaviors) and the independent variables (i.e., parents' characteristics, students' characteristics and financial situation) was not the same between two Asian groups of students (i.e., the result of Chow test has to be significantly different). The result of this test was significant; $F(10, 651) = 3.32, p < .001$. This means that the coefficients of the regression model were not equal, indicating that there was a significant difference in financial behaviors between Asian American and international Asian college students. Therefore, the differences of financial behaviors between Asian American

TABLE 4b. Financial Experiences of Asian American College Students and International Asian College Students (n = 671)

Variable	Asian American College Students		International Asian College Students		$\chi^2(1)$
	n	%	n	%	
Financial experience					
Precollege allowance child	154	.31	81	.45	11.23***
Precollege allowance teen	188	.38	101	.56	17.59***
Precollege work	234	.48	36	.20	41.12***
Precollege save	446	.91	159	.89	0.49
Precollege bank account	428	.87	148	.83	2.01
Precollege invest	189	.39	86	.48	4.86*
Finance class high school					
One-time events	91	.19	24	.14	7.11*
Long courses or repeated sessions	39	.08	6	.03	
Finance class college					
One-time events	84	.17	33	.19	2.65
Long courses or repeated sessions	29	.06	16	.09	
Financial consultant					
Financial aid counselor					
High school only	49	.10	9	.05	46.35***
College only	105	.22	7	.04	
High school and college	36	.07	5	.03	
Financial advisor					
High school only	48	.10	8	.05	20.68***
College only	85	.18	15	.08	
High school and college	24	.05	3	.02	
Peer counselor					
High school only	44	.09	7	.04	7.60
College only	37	.08	10	.06	
High school and college	26	.05	6	.03	
Credit counselor					
High school only	17	.04	10	.06	10.84*
College only	12	.03	13	.07	
High school and college	4	.01	3	.02	
Investment advisor					
High school only	8	.02	10	.06	9.60*
College only	19	.04	11	.06	
High school and college	5	.01	2	.01	
Attorney					
High school only	5	.01	4	.02	8.47*
College only	8	.02	8	.05	
High school and college	1	.00	2	.01	

(Continued)

TABLE 4b. Financial Experiences of Asian American College Students and International Asian College Students (n = 671) (Continued)

Variable	Asian American College Students		International Asian College Students		$\chi^2(1)$
	n	%	n	%	
Insurance agent					38.68***
High school only	15	.03	10	.06	
College only	13	.03	24	.14	
High school and college	4	.01	6	.03	
Tax advisor					8.31*
High school only	8	.02	7	.04	
College only	20	.04	14	.08	
High school and college	9	.02	1	.01	
Banker					21.15***
High school only	53	.11	17	.10	
College only	56	.12	46	.26	
High school and college	45	.09	10	.06	

Note. N = 671.

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

students and international Asian students were statistically different (Table 7).

For both Asian American and international Asian college students, financial socialization coefficients were positively and statistically significant. Further, results showed that financial socialization had a larger positive association with financial behaviors in Asian American college students ($\beta = .496, p < .001$). Compared to international Asian students, this difference was statistically significant ($\beta = .297, p < .05$).

Discussion

This is the first study to exclusively focus on a large sample of Asian college students' financial behaviors in the United States. The investigation's purpose was to begin filling a gap in extant knowledge about how Asian college students financially behave. Results suggest that Asian American students are different in their financial behaviors compared to international Asian students, especially related to financial stress, knowledge, and socialization.

Findings suggest that Asian American students are more stressed about money compared to international Asian students due to the different socioeconomic statuses maintained by each group (Chen, 2012; Sohn et al., 2012;

Thomas et al., 2016). All international students must complete a form called "I-20: Certificate of Eligibility for Nonimmigrant Status," which requires financial evidence confirming that students' family or guardian(s) can afford tuition and living expenses during the study abroad period (Farrell, 2015). For example, during 2016–2017, an international undergraduate student at Rice University would be required to provide documentation of at least \$63,017 on hand to prove capability of covering college costs (International Student Financial Statement, 2016). Asian American college students, in contrast, are often independent in terms of finances, for example, paying tuition and living expenses themselves and/or with the assistance of student loans (Sue & Okazaki, 2009). It is understandable, then, that international Asians may have more opportunities to get access to financial resources, and international parents are able to provide better financial environments than Asian American parents. Because international Asian students are required to document established financial support before beginning their studies, it is not difficult to understand why they may have less financial stress than their Asian American counterparts.

Results also showed that international Asians have lower financial knowledge scores than Asian American students. Because of the differences between financial systems in the

TABLE 5. Scale Correlations and Average Scores (Total Sample Size, n = 671)

Variable	M (SD)	1	2	3	4	5	6	7	8	9	10
Financial management behaviors	-.01 (1.08)	-.027	-.033	.020	.048	-.026	-.010	.000	-.015	-.010	.344***
Predictor variable											
1. Education_father	.54 (.50)	-									
2. Education_mother	.49 (.50)	.616***	-								
3. Annual income_parent	4.23 (5.53)	.120**	.133**	-							
4. Citizenship	1.23 (.42)	.077	.110*	-.040	-						
5. Age	20.11 (1.48)	-.079	-.075	-.003	.218***	-					
6. Gender	1.66 (.50)	-.067	-.058	-.015	-.093*	-.070	-				
7. Years enrolled	2.08 (6.99)	-.068	-.012	-.004	-.035	.187***	-.047	-			
8. Employment status	.52 (.50)	-.084*	-.098*	-.024	-.087*	.200***	.147***	.040	-		
9. Financial stress	-.03 (1.23)	.036	.038	-.012	-.005	.073	-.009	.068	.065	-	
10. Parental financial socialization	-.01 (1.02)	-.015	-.074	-.024	-.061	.045	-.035	-.001	.088*	.302	-

Note. N = 671.

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

TABLE 6. Determinants of Financial Behaviors for Asian American College Students and International Asian Students (Model 3) (n = 671)

Variable	Asian American College Students				International Asian College Students			
	B	SE	β	Change in R^2	B	SE	β	Change in R^2
Parents characteristics								
Education_father	-.179	.150	-.073		-.019	.024	-.100	
Education_mother	.058	.150	.024		-.018	.025	-.097	
Annual income_parent	.002	.010	.010	.002	-.003	.004	-.073	.068
Students characteristics								
Age	-.025	.045	-.028		.002	.006	.037	
Gender	.001	.119	.001		-.026	.018	-.141	
Years enrolled	.002	.011	.011		.001	.001	.136	
Employment status	-.106	.127	-.043	.003	.017	.018	.090	.069
Financial situation								
Financial stress	-.036	.049	-.035		-.005	.011	-.066	
Parental financial socialization	.751	.074	.496***	.240***	.018	.009	.297*	.058*
Model R^2		.245						
Model F-statistic	11.744***	(df = 9, 326)			2.391*	(df = 9, 89)		

Note. N= 671.

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

Estimated coefficients are significantly different between the two samples, $< .05$.

United States and their home countries, it is understandable that international Asians have lower scores on financial knowledge. However, international Asian college students need to stay in the United States for at least 4 years to complete their degree. During this time, they must adapt to the environment, negotiate language barriers, and navigate a myriad of cultural differences. Therefore, understanding U.S. financial systems (e.g., applying for a Social Security number, establishing and using a U.S. bank account and/or credit card, tracking credit scores and/or credit histories) is extremely important toward effectively adjusting to and functioning within the country. Mori (2000) found that international students are more likely to have psychological problems than other students because of such demands in their cultural adjustment. Therefore, better understandings of the financial stressors that international Asian students deal with will better equip financial professionals (e.g., educators, researchers, counselors) to offer and target advice and support.

International Asian students report more financial experiences than Asian Americans—across both precollege experiences and in meeting with financial consultants—which might explain why international Asian parents are willing to provide more financial resources and/or better financial environments than Asian American parents. Although Asian American students are more likely to receive financial education from school, such as financial classes, international Asian students have more access to establish their own fruitful financial experiences (e.g., by their parents creating an environment to discuss finances and/or offering opportunities for their children to have access to various financial professionals). This aligns with family financial socialization theory, which explains that because parents (a) typically live with children in close proximity, and (b) offer and control economic and material resources to children as they grow and develop—parents represent a primary source of financial socialization to young people (Gudmunson & Danes, 2011; Gudmunson et al., 2016).

Asian American parents appear more likely to reach out to their children and feel comfortable talking about money management as compared to international Asian parents. Asian American parents may be more concerned about their children's college tuition and expenses, too; this could be why the topic of money comes up earlier in their

families. Therefore, the results of parental financial socialization, explained by family financial socialization theory, shows a larger significant impact on the personal financial behaviors on Asian American college students compared to international Asian students.

It is important to note, too that international Asian college students live far away from their families, including parents or siblings. It is thereby hard for them to financially socialize with their parents. Although financial socialization is an ongoing process between parents and children, compared to international Asians, Asian American college students live closer to their families so they could be continuously influenced by their parents in financial matters. This could be a reason behind why parental financial socialization has a smaller impact on international Asian college students than their Asian American counterparts.

Limitations

Results of this study should be interpreted with caution. While we focused on Asian college students, our investigation was not able to clarify which countries the students originally came from. Because of the diversity in educational values that are held by different Asian groups, findings cannot be broadly generalized. For example, East Asian countries such as China, Japan, and South Korea represent families who conventionally maintain high values on education—and that are comparatively “Westernized” vis-à-vis other Asian subgroups like those identifying with Burmese, Hmong, Thai, and Vietnamese (Chen, 2012; Hune, 2002; Sohn et al., 2012; Thomas et al., 2016). Without knowing specific origins and the small numbers typically represented on college campuses of each Asian subgroup, it is hard for researchers to identify how cultural backgrounds influence college students who were included in this study. Future studies should identify the origins of respondents so that they are able to ascertain differences between and/or similarities across diverse Asian groups.

Second, this investigation drew from a secondary dataset, the NSFWS (2014), which limited researchers' options in examining “family” financial socialization (versus “parental” financial socialization). Future studies should design scales that better measure family financial socialization within and across various cultural backgrounds. Additionally, data utilized originated from students' reports. Future work should include both parents and students,

and/or other family—or significant—others, as informants. By doing this, we could tap various insights into socialization processes and have better understandings of mechanisms among different informants. Further, parental modeling can have both positive and/or negative influences on children. By identifying said impacts as positive or negative, researchers could clarify the mechanisms underlying interactions between parents and children that lead to different results.

Implications for Practitioners

Financial professionals who work with Asian college students must consider thoroughly how to offer education and services in multiple ways to match the different financial backgrounds that students represent. These efforts could include formal education to increase financial wisdom (e.g., courses) alongside opportunities for personal coaching and advice (e.g., financial aid counselors). Attention to differences between the two groups of Asian students highlighted here are important to consider. For Asian American college students, financial counselors might need to focus more on areas targeting student loan debt and managing credit cards. For international Asians, indicated foci may target how to legally/appropriately manage funds (e.g., fill out tax documents). Such efforts hold great potential in better equipping these young adults to be purposeful and effective in the ways that they handle and negotiate the often stressful challenges of money.

Despite the fact that parents and other family characteristics are not the only significant agents of socialization, parents still play a major role in influencing children's capabilities to adapt and succeed in particular sociocultural milieus (Barbarin & Jean-Baptiste, 2013; Serido et al., 2015). Thus, financial programs (e.g., counseling, coaching) should aim at developing parenting practices on financial socialization that benefit both parents and children. For example, financial activities should offer both parents and children financial information regarding budgeting, saving, and spending. Per family financial socialization theory, when children grow up into adulthood, parents and their young adult children should also attend financial consultant sessions to “acquire” and “modify” their existing financial behaviors and characteristics (Gudmunson et al., 2016). The family relationship should be two-way interaction(s) instead of one-way (Gudmunson & Danes, 2011). This means that what young adult children learn and modify at college about

financial matters that could (and should) be shared with, and potentially influence, their parents. Collectively, then, whole families (parents and young adult children) can manage their finances more strategically.

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