Financial Education for Equity: Exploring the Needs of U.S. Hispanic College Students

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Authors
Dr. Maryam Tofighi, California State University Los Angeles
mtofigh@calstatela.edu

Dr. Charles Danso, California State University Los Angeles
cdanso@calstatela.edu

Dr. Porschia Nkansa, California State University Los Angeles
pnkansa@calstatela.edu

Abstract

Financial literacy, encompassing the skills and knowledge necessary for informed financial decision-making, is critical for social and economic stability and growth. Recognizing its importance, various international and government agencies and educational institutions have integrated financial education into high school curricula and beyond. This study explores the financial behaviors and literacy of Hispanic students compared to their non-Hispanic peers at a large American Hispanic-serving university. The analysis identifies significant discrepancies between Hispanic and non-Hispanic groups, not only in financial behaviors such as expense tracking, budgeting practices, financial goal setting, and perceived financial security but also in basic financial knowledge. These results underscore the necessity of implementing targeted financial literacy programs tailored to the specific needs of Hispanic populations to enhance financial inclusion and reduce economic disparities. Based on the findings of this research study, several recommendations for policymakers, legislators, and educators are presented.

Keywords: Financial Literacy, Financial Education, Economic Disparity, Hispanic Minorities, Financial Inclusion

Financial literacy is defined as the knowledge and skills required to enhance individuals' ability to understand financial information and make informed decisions regarding various financial matters, including financial planning, wealth building, debt management, and retirement funds (Carlin & Robinson, 2012; Lusardi & Mitchell, 2014; Remund, 2010). The importance of financial education has gained significant recognition among government agencies, policymakers, consumer advocates, and educators. Financial government agencies such as the U.S. Federal Reserve and the U.S. Department of the Treasury actively support financial education through research, community outreach and policy advocacy. These efforts highlight the vital role of financial literacy in fostering economic stability, consumer wellbeing, and growth (Xiao et al., 2024).

Several states in the United States have mandated financial literacy education in high school curricula to better prepare young people (Center for Financial Literacy). Additionally, financial education programs have been supported globally by diverse organizations such as the Organisation for Economic Co-operation and Development (OECD, 2016), the World Bank, the European Central Bank (ECB), and the Financial Stability Board (FSB). This expansion has prompted academic research to investigate the effectiveness and efficiency of these programs on individuals' financial knowledge and financial behavior (e.g., Ergün, 2018; Hamid & Loke, 2021; Sinnewe & Nicholson, 2023).

While several studies have examined the effect of baseline financial knowledge on individuals' financial behavior and wellbeing, other research delves more deeply into the specific effects of financial literacy programs offered in high schools, colleges, and workplaces. The existing literature assessing baseline financial knowledge indicates that individuals with higher financial literacy are more proficient in core financial management skills such as saving, investing, and managing debt (Hilgert et al., 2003; Lusardi & Mitchell, 2014; Lusardi & Tufano, 2015; Sinnewe & Nicholson, 2023). However, the relationship between financial education and some financial behaviors, such as credit card behavior and savings/investment, is complex and may vary based on whether the effects are assessed in the short term or long term (Bernheim et al., 2001; Tennyson & Nguyen, 2001; Wagner & Walstad, 2019; Xiao et al., 2024).

Additionally, research has documented the level of financial literacy within specific cohorts or populations, identifying certain population characteristics as key factors in addressing the wealth gap and promoting financial wellbeing (Bayer et al., 2009; Clark et al., 2012; Lusardi & Mitchell, 2011; Lyons, 2004; Peng et al., 2007; Xiao & O'Neill, 2016). These studies typically explore characteristics and behaviors specific to certain populations that influence financial literacy levels, as well as the outcomes of being financially literate (Bayer et al., 2009; Lusardi & Mitchell, 2014; Shim & Serido, 2011). However, to the best of our knowledge, no research has yet holistically investigated the specific financial needs, perceptions, experiences, and

knowledge levels of minority populations within distinct demographics prior to the implementation of financial mandates.

Race and ethnicity, along with other demographic factors, are significant determinants of variations in financial capability (Lusardi & Mitchell, 2023; Peng et al., 2007; Robb & Sharpe, 2009; Xiao & O'Neill, 2016). For instance, minority groups (non-Whites) tend to have lower financial capability scores compared to their non-minority (White) counterparts (Xiao & O'Neill, 2016). This ethnicity discrepancy is further reflected in financial literacy test scores, relationships with parents, saving behaviors, credit card behavior, and levels of financial independence (Lyons, 2004; Peng et al., 2007; Robb & Sharpe, 2009; Shim & Serido, 2011; Tennyson & Nguyen, 2001). These findings align with broader research indicating that racial and ethnic minorities often face systemic barriers to educational attainment, which extend to financial literacy education (Collins & O'Rourke, 2010; Espinosa et al., 2019; Jong et al., 2020). Previous research highlights the current and projected disparities in wealth and financial capability between White individuals and minorities, particularly Hispanic populations (Kim & Xiao, 2021; Lee et al., 2022; Mottola, 2014; Schneider et al., 2006).

The current paper aims to build on these findings by examining the specific necessities, concerns and priorities of minorities that influence financial literacy levels and their outcomes. By focusing on race and ethnicity as key demographic factors, our study specifically targets the Hispanic minority group within the United States, given their status as the largest and fastest-growing minority population in the United States (U.S. Census Bureau, 2021a; 2021b). We seek to identify the financial needs, perceptions, and prerequisites of Hispanic students at a large American Hispanic-serving university and to explore the complexities of financial literacy and financial behaviors compared to non-Hispanic students. Specifically, this study seeks to address the following questions:

1. Are there any discrepancies between the financial behaviors of Hispanic and non-Hispanic students in terms of expense tracking, budgeting practices, financial goal setting, perceived financial security and credit card payment timeliness?
2. Are there any variations between the perceived personal financial management skills of Hispanic and non-Hispanic students in terms of confidence and comfort with personal financial management?
3. Are there any deviations between the financial knowledge of Hispanic and non-Hispanic students in terms of interest calculation, inflation calculation, bond price calculation and stock market knowledge?

Addressing financial disparities among the Hispanic population is crucial for several reasons. First, developing targeted financial education programs based on the specific needs,

perceptions and priorities of the Hispanic population can significantly promote financial inclusion by tailoring content to the specific needs of this community. Second, these efforts can be informative to financial government agencies, policymakers and educational institutions while contributing to the reduction of the wealth gap. Third, financial institutions can help and benefit minority communities by creating targeted products and services that cater to the unique financial needs of Hispanic minority groups. Fourth, enhanced financial literacy among Hispanic students can lead to greater economic stability for individuals and families at the micro-level and support economic growth and stability within communities and the nation as a whole. Through this comparative analysis, we hope to deepen the understanding of financial literacy within the Hispanic community and offer targeted recommendations for improving financial behavior. Finally, we develop recommendations that provide some frameworks on how to deliver financial education effectively to Hispanic populations and possibly minority groups.

Literature Review

Many studies describe college students' financial knowledge and the factors that affect their financial behavior and overall financial literacy. Generally, students' financial knowledge is assessed through their comprehension of financial concepts, exposure to financial education courses, financial confidence, and knowledge of personal finance topics and practices (Ergün, 2018; Norvilitis et al., 2006; Robb & Sharpe, 2009; Serido & Shim, 2014; Shim & Serido, 2011; Sinnewe & Nicholson, 2023). Other studies examine the effect of college students' participation in financial education courses on their financial knowledge and overall financial literacy. This prior literature outlines how financial education influences college students' investment knowledge, credit behavior, and financial capability (Brown et al., 2014; Mottola, 2014; Peng et al., 2007). While previous studies have examined the effect of baseline financial literacy knowledge on individuals' financial confidence and behavior, other studies delve deeper by investigating the more precise effects of specific financial literacy courses offered in college. A summary of the findings from previous studies is presented in Table 1. We further elaborate on these findings in the subsequent sections.

Table 1: Overview of Selected Financial Literacy Research

Publication	Study's Sample	Antecedent/Predictor Variables	Outcome Variables	Summary of Findings
Baseline Financial Knowledge Assessment Studies				
Ergün (2018)	University students	- Financial education (formal and informal) - Parental influence	- Financial literacy (objective and subjective) - Financial behaviors	Financial education, whether formal or informal, significantly impacts financial capability.

Publication	Study's Sample	Antecedent/Predictor Variables	Outcome Variables	Summary of Findings
			- Financial attitudes	
Howlett, Kees and Kemp (2008)	University students	- Self-regulatory state - Future orientation - Financial knowledge	- Likelihood of contributing to a 401(k) plan - Attitude toward a risky investment	Self-regulatory state, future orientation and financial knowledge can affect college students' evaluations of retirement investments and intentions for retirement planning
Lusardi and Mitchell (2014)	- High school students - College students - Workplace employees	- Financial knowledge	- Wealth accumulation - Financial knowledge - Participation in sophisticated assets (e.g., stocks)	Short-term and long-term effects were examined. Programs with continuous follow-up or low depreciation of financial knowledge have more significant long-term effects.
Norvilitis et al. (2006)	College students	- Financial status - Credit card use - Attitudes towards debt - Financial knowledge - Psychological measures	- Onset of debt - Effects of debt	Lack of financial knowledge, age, number of credit cards, delay of gratification and attitudes towards credit card use are associated with debt
Robb and Sharpe (2009)	University students	- Financial knowledge - Financial independence	- Credit card behavior	Contrary to expectations, students with higher financial knowledge had significantly higher credit card balances. Financially independent students were more likely to carry a balance and had higher credit card balances.
Serido and Shim (2014)	College students	- Financial knowledge (objective and subjective) - Financial behaviors (paying bills on time, tracking expenses) - Financial socialization (parental influence, romantic partners' influence)	- Financial well-being - Financial self-sufficiency - Overall well-being	Many young adults struggle with financial self-sufficiency and rely on financial support from their families years after college. Lower overall wellbeing was observed among participants with debt, regardless of employment status.
Shim and Serido (2011)	University students	- Parental influence (financial socialization, communication, expectations) - Financial education (formal and informal) - Work experiences - Life events (positive and negative events)	- Financial capability (financial knowledge, attitudes, beliefs, and behaviors) - Wellbeing (physical, psychological, financial, and life satisfaction)	When delivered through a structured curriculum by trained teachers, financial education leads to substantial gains in students' understanding of personal finance topics.

Publication	Study's Sample	Antecedent/Predictor Variables	Outcome Variables	Summary of Findings
Sinnewe and Nicholson (2023)	University students and alumni	- Subjective financial literacy - Motivation towards financial management - Influence of parental and partner financial behavior	- Financial habits - Financial decision-making	Motivation to engage with personal finances, rather than financial literacy, is the primary driver of financial engagement. Parental and partner influences play significant roles in shaping financial behaviors.
Financial Literacy Intervention Studies				
Brown et al. (2014)	- Young adults - Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP) Data	- Exposure to state-mandated financial education	- Credit scores - Delinquency rates	Young adults exposed to mandated financial education had higher credit scores and lower delinquency rates compared to those in control states. The positive effects increased with the number of years since the mandates were implemented.
Lyons (2004)	University students	- Financial independence - Receipt of need-based financial aid - Debt behavior - Renting an apartment - Budgeting money - How credit cards were acquired (mail, retail store, bank, campus table) - Attitudes towards borrowing for vacation, car, education, entertainment, and shopping	Financial behaviors: - Holding credit card balances of $1000 or more - Delinquent on credit card payments by two months or more - Reaching the limit on credit cards - Paying off credit card balances some of the time or never	Financially at-risk students are more likely to have high credit card balances, be delinquent on payments, reach their credit limit, and not pay off their balances in full each month.
Mottola (2014)	Adults from different generations (including college-aged Millennials)	- Gender - Race - Age group within millennials - Household income - Marital status - Having dependents - Educational attainment (college degree, currently enrolled) - Employment status	- Financial literacy - Financial behaviors (e.g., spending more than income, having unpaid medical bills, having rainy day funds, saving for retirement) - Financial satisfaction - Debt concerns	Millennials exhibit problematic financial behaviors, low financial literacy, and significant concerns about debt. Despite financial challenges, millennials report financial satisfaction levels on par with Gen Xers and Boomers, though significantly lower than the Silent Generation. Within the millennial generation, minorities display lower financial capability compared to Whites.
Peng et al. (2007)	University alumni	- Participation in high school and/or college personal finance courses	- Investment knowledge - Household savings rates	College personal finance courses significantly improved investment knowledge, unlike high school courses, which showed no significant impact. No significant difference in savings rates between

Publication	Study's Sample	Antecedent/Predictor Variables	Outcome Variables	Summary of Findings
				those who took high school courses and those who did not was observed.

Baseline Financial Knowledge Assessment

Prior investigations into college students' financial knowledge typically define this construct through their understanding of key personal finance topics, including banking, credit cards, credit history, debt management, insurance, investments, and retirement planning (Howlett et al., 2008; Norvilitis et al., 2006; Robb & Sharpe, 2009). A general consensus from these studies suggests a positive association between financial knowledge and prudent financial behaviors. For instance, a longitudinal study by Shim and Serido (2011) found a positive correlation between college students' financial knowledge and their financial behaviors, indicating that greater exposure to financial education was linked to improved financial outcomes, such as more responsible debt management and engagement in retirement planning. This alignment between knowledge and behavior might seem intuitive – it is generally expected that individuals with a better understanding of financial concepts are more likely to apply that knowledge effectively.

However, a more critical examination reveals that the relationship between financial knowledge and behavior is complex and often counterintuitive, necessitating deeper investigation. Notably, Robb and Sharpe (2009) presented compelling evidence that students with higher financial knowledge paradoxically maintained *larger* credit card balances. This finding challenges the simplistic assumption that knowledge alone guarantees optimal financial behavior and suggests that other mediating factors, such as access to credit, risk tolerance, or even overconfidence, may be at play. Furthermore, broader assessments have consistently revealed significant deficiencies in financial literacy among college students. Lusardi and Mitchell (2014) reported that college students frequently receive "failing" grades on national financial literacy assessments, indicating a pervasive lack of fundamental financial knowledge. This widespread deficit underscores critical vulnerability as students transition into financial independence. Extending this concern, Serido and Shim's (2014) longitudinal findings suggested that lower perceived financial knowledge among college students correlated with a less successful transition into young adulthood, highlighting the enduring impact of financial illiteracy on long-term outcomes. Beyond individual cognitive factors, research indicates that financial knowledge is profoundly shaped by demographic and contextual variables. Ergün (2018) demonstrated associations between college students' financial knowledge and various demographic characteristics such as parental income, education, and nationality. Similarly,

Sinnewe and Nicholson (2023) argued that young adults' confidence in their financial knowledge should be evaluated in conjunction with their perceived financial control, social context, and experiences with financial hardship. This substantial heterogeneity in financial knowledge levels across diverse groups at various life stages underscores the nuanced nature of financial literacy and highlights a critical gap in understanding how these factors interplay within specific, often understudied, populations. Our study directly addresses this gap by seeking a deeper understanding of financial knowledge among Hispanic college students.

Financial Literacy Intervention

The persistent financial vulnerabilities observed among college students underscore the imperative for effective financial literacy interventions. Lyons (2004) compellingly argued for targeted financial education programs, particularly for financially "at-risk" college students (e.g., those with problematic credit card activity and payment delinquency). Lyons (2004) posited that such interventions could lead to fewer payment problems, defaults, and charge-offs after graduation. Prior research investigating the efficacy of financial literacy curricula for college students presents a varied set of findings, suggesting that while beneficial, interventions are not universally effective.

Some studies provide encouraging results, demonstrating the positive impact of formal financial instruction. For instance, Peng, Bartholomae, and Cloud (2007) showed that participation in a college-level personal finance course significantly improved young adults' investment knowledge and that experience with bank accounts and investment assets was associated with higher levels of investment knowledge and savings. Similarly, Brown, Collins, and Schmeiser (2014) found that young adults who completed personal finance education exhibited higher credit scores and lower payment delinquency rates, suggesting a tangible positive impact on credit behavior. However, the effectiveness of financial literacy interventions is not universally confirmed, indicating that the mere provision of education does not guarantee improved outcomes. Contrarily, Mottola (2014) revealed that despite Millennials (including college-aged individuals) being more likely to have participated in financial education opportunities, they nonetheless reported low levels of financial literacy. This disparity suggests that participation alone does not automatically translate into comprehensive literacy or prudent financial behaviors, raising critical questions about curriculum design, instructional quality, and the persistence of learned knowledge. These mixed findings, summarized in Table 1, highlight a need for further investigation into the specific mechanisms and contextual factors that influence intervention success, particularly for diverse student populations.

Population Characteristics and Financial Literacy

Prior literature consistently indicates that race and ethnicity are significantly associated with persistent disparities in financial knowledge and financial behaviors, underscoring the necessity of culturally responsive financial education. Research by Lyons (2004), for example, noted that Hispanic college students were disproportionately affected by difficulties making credit card payments. Further, Shim and Serido (2011) revealed that Latinx college students reported lower rates of participation in both formal and informal financial education compared to their peers from other ethnic groups, including Asian/Pacific Islander, Black, Native American, and White students. This study also critically reported a concerning trend where Hispanic students' positive financial behaviors, such as tracking expenses and saving, had deteriorated over time. While their perceived financial self-efficacy and perceived financial control increased over time, this ethnic group exhibited persistent negative financial attitudes (Shim & Serido, 2011).

Broader national analyses reinforce these concerns. Lusardi and Mitchell (2014) identified Hispanics as one of the specific population subgroups in the United States facing significant challenges with financial illiteracy. Echoing this, Mottola (2014) illustrated that minority groups, including Hispanics, were more prone to spending more than their income and accumulating greater student loan debt compared to their White counterparts. Specifically, data indicate that in 2019, approximately 20% of Hispanic households spent more than their income, compared to 10% of White households (Federal Reserve, 2020). Moreover, Serido and Shim (2014) found that Hispanic college students reported lower levels of perceived financial control compared to other ethnic subgroups (Asian, Black, Native American, and White). These findings collectively demonstrate a persistent pattern of financial vulnerability and educational disparities among Hispanic college students. This context is particularly relevant when examining first-generation college students, for whom financial literacy is a critical, yet often underdeveloped, skill (Gomez et al., 2023). These students face unique financial challenges, including a greater reliance on loans and employment, higher levels of financial strain, and lower financial knowledge and self-efficacy compared to their continuing-generation peers (Rehr et al., 2022).

This study addresses this critical need by specifically selecting Hispanic college students within the United States demographic to explore their financial literacy and financial behaviors, offering a comparative analysis with non-Hispanic samples. This comparative approach is essential for uncovering nuanced insights into financial knowledge and behavioral differences, thereby providing crucial data for developing equitable and effective financial literacy interventions tailored to address specific community needs.. In the subsequent section, we outline the methodology employed and present the empirical findings from our investigation.

Method

This study utilized a survey tool to gather data on participants' financial behaviors and financial knowledge (see Appendix B). The first part of the questionnaire contained questions measuring participant's self-reported financial behaviors. These questions were created by the researchers based on the relevant literature in assessing financial literacy needs. The second part of the questionnaire included the standard financial knowledge questions, also known as the "Big Five" developed and used by the Global Financial Literacy Excellence Center (Clark et al., 2017; Lusardi & Mitchell, 2017). Finally, the last part of the survey asked demographic questions such as age, gender, ethnicity, first-generation college student status, employment status, household size, and household annual income.

The questionnaire was administered online via Zoom video conferencing software with the help of university staff during six academic semesters from Spring 2021 to Fall 2023 to more than 1,000 students at a large Hispanic-serving public university in the United States. As of the date of this research study, the university has more than 19,000 undergraduate students, and 63% of the student population comprises Hispanic or Latinx students, with 51% of the students being the first generation in their families to attend college. Students were encouraged to fill out the survey to help the university design and deliver financial literacy workshops based on students' needs. Out of 794 of the responses returned, 602 completed surveys were considered for this study. Given that some graduate students and alumni also participated in the survey, we only focused on the larger population of current undergraduate students, which left us with a dataset of 490 participants.

Results

Using the responses to the ethnicity question in the demographic section, we created a categorical variable that distinguishes between Hispanic (n = 330) and non-Hispanic (n = 155) groups (see Table 2). The students' ethnicity distribution matches the overall ethnic makeup of the university's student population. The dichotomous ethnicity variable was included in both ANOVA (Analysis of Variance) and cross-tabulation analyses to compare the financial behaviors and financial knowledge of Hispanic and non-Hispanic groups. Due to the unequal sample sizes between Hispanic and non-Hispanic groups, we employed the Welch ANOVA test to determine whether statistically significant differences existed between their means. This test is particularly suitable as it is robust against differences in sample sizes and the violated assumption of homogeneity of variances (equal variances) across groups. We used cross-tabulation to effectively understand the differences in financial knowledge, as it allows for a comparison of frequencies and proportions across ethnic groups (Sheskin, 2003). Appendix A provides a

detailed frequency distribution of the participants' demographic data. Next, we outline a detailed analysis of the financial behaviors and financial knowledge between the Hispanic and non-Hispanic groups.

Table 2. Participants' Ethnic Background

Ethnicity	Frequency	Percentage
Hispanic or Latinx	330	67.3
Non-Hispanic (Total of the following groups)	155	31.7
Asian	91	18.6
African-American or Black	21	4.3
White	24	4.9
Other	19	3.9

Expense Tracking

We asked students whether they track their expenses regularly. The ANOVA analysis of financial behaviors related to tracking expenses shows that Hispanic students (M = 3.38, SD = 1.11) and non-Hispanic students (M = 3.60, SD = .94) show similar tendencies in monitoring their finances. However, these seemingly minor differences in means are statistically significant (F = 5.56, p < .05), indicating that the slightly higher average reported by non-Hispanic individuals reflects a real, consistent difference in this behavior across the groups. In other words, non-Hispanic students were more likely to regularly track their expenses than Hispanic students.

Budgeting Practices

We asked participants about their financial behaviors concerning monthly budget preparation. The ANOVA results reveal that the non-Hispanic group is more likely to prepare a monthly budget (M = 2.52, SD = 1.21) than the Hispanic group (M = 2.25, SD = 1.21, F = 5.25, p < .05). The data implies that non-Hispanic students are slightly more inclined to prepare a budget each month compared to Hispanic students, reflecting a distinct pattern in financial behavior related to budgeting practices.

Financial Goal-Setting Practices

We asked participants about their practice of making and discussing financial goals with their families. The results reveal that while both Hispanic (M = 2.43, SD = 1.30) and Non-Hispanic (M

= 2.72, *SD* = 1.24) groups show a tendency toward less frequent discussion of financial goals with family, there is a statistically significant difference ($F = 5.29$, $p < .05$) between the two groups, suggesting that non-Hispanics are slightly more inclined to engage in such discussions.

Perceived Financial Security

We asked about students' perceived security in their current financial situation. The relatively low mean scores for both the Hispanic ($M = 2.94$, $SD = 1.03$) and non-Hispanic ($M = 3.27$, $SD = .96$) groups indicate that a substantial number of students do not feel highly secure financially. However, the statistical ANOVA results ($F = 11.80$, $p < .001$) highlight that non-Hispanics tend to feel slightly more secure than Hispanics. This suggests that while both groups have concerns about financial security, these concerns are more pronounced in the Hispanic group. Students were also asked to rate their consistency in paying credit card bills on time each month on a scale from 1 (Never) to 5 (Always). Both Hispanic and non-Hispanic groups reported their behavior as being near 'Always' with no significant difference between the two groups ($p > .5$).

Emergency Fund Practices

The participants were asked whether they had at least $400 in funds set aside for emergencies. This standard question is inspired by a finding from the U.S. Federal Reserve's Report on the economic well-being of U.S. households. In the annual surveys, it is reported that a significant portion of Americans would have difficulty covering an unexpected expense of $400, indicating a measure of financial vulnerability. The Crosstab analysis reveals that 81.6% of Hispanic students and 88.5% of non-Hispanic students reported having such emergency funds. Conversely, 18.4% of Hispanics and 11.5% of non-Hispanics reported not having this amount set aside for emergencies. Non-Hispanic students are more likely to have emergency funds set aside than Hispanic individuals. The Pearson Chi-Square test reveals a significant difference ($\chi 2 = 3.77$, $p = .05$). In sum, non-Hispanic students are more likely to have set aside at least $400 for emergencies than Hispanic students.

Confidence and Comfort with Personal Financial Management

We asked about the students' confidence in attaining their financial goals, their comfort level with managing personal finances, and their confidence in saving sufficiently for retirement. The responses to these inquiries indicated moderate levels of confidence and comfort across the board. While there was no significant difference in the responses between the Hispanic and non-Hispanic groups, the reported moderate levels of comfort and confidence in attaining financial goals ($M_{Hispanics} = 2.28$, $SD = .90$; $M_{Non\text{-}hispanics} = 2.36$, $SD = .82$; $p > .3$), managing

personal finances ($M_{Hispanics}$ = 2.52, *SD* = .91; $M_{Non\text{-}hispanics}$ = 2.48, *SD* = .90; $p > .7$) and confidence in saving for retirement ($M_{Hispanics}$ = 3.05, *SD* = 1.05; $M_{Non\text{-}hispanics}$ = 2.99, *SD* = 1.11; $p > .6$) among students regarding their financial management and goal achievement are noteworthy. These moderate levels suggest that students may not feel completely prepared or confident in their financial management skills and ability to reach financial goals. By identifying specific areas where individuals feel less confident or comfortable, targeted educational programs or resources can be developed to address these gaps.

First-Generation College Student Status

Given the availability of data on first-generation college students (FGCS) in our survey, we extended our analysis to explore the differences in financial literacy and behaviors between FGCS and their peers. The analysis of financial behaviors regarding regular expense tracking among FGCS (N = 370) and non-first-generation college students (N = 117) revealed that FGCS reported a lower average score in tracking personal expenses (*M* = 3.39, *SD* = 1.07) compared to their peers (*M* = 3.64, *SD* = 1.03). The Welch ANOVA results ($F = 5.12$, $p < .05$) indicate a statistically significant difference between the FGCS and others, suggesting that first-generation college students track their expenses less than others. Moreover, when asked about financial security feelings, the FGCS reported a lower average level of financial security (*M* = 2.95, *SD* = .99) than their non-first-generation peers (*M* = 3.34, *SD* = 1.05). The Welch ANOVA analysis showed a significant difference in the financial security feelings between the two groups ($F = 12.78$, $p < .001$), suggesting that first-generation college students feel less financially secure compared to students who are not the first in their families to attend college. However, regarding other financial behavior aspects, including preparing monthly budgets and financial goal-setting practices, FGCS did not differ from other students.

We subsequently conducted an intersectional analysis to determine whether there are differences between the financial behavior and financial knowledge of FGCS and non-first-generation college students within Hispanic or non-Hispanic groups. Within the Hispanic group, there was no difference between any of the financial behaviors (expense tracking, credit card payment timeliness, budgeting practice, financial goal setting practices and perceived financial security) and financial knowledge metrics (interest calculation, inflation calculation, bonds knowledge, mortgage rate calculation and stock market knowledge) of FGCS and others (All $p_s > .1$). It should be noted that this lack of statistical evidence might be due to the significant disparity in sample size between first-generation college students (*N* = 284) and non-first-generation college students (*N* = 43) within the Hispanic group. A more balanced sample size of both groups may have led to different outcomes in financial behavior metrics, which calls for further examination in future research. Similarly, within the non-Hispanic groups, no difference

between the financial behaviors and financial knowledge tests of FGCS and others was evident (All $p_s > .1$). However, contrary to the Hispanic group, the sample sizes of FGCS ($N = 75$) and non-FGCS ($N = 69$) college students were close. Hence, the disparity in sample sizes cannot explain the lack of evidence within the non-Hispanic group.

Financial Knowledge Metrics

These financial literacy questions were sourced from the Global Financial Literacy Excellence Center (GFLEC), which conducts the Standard & Poor's Ratings Services Global Financial Literacy Survey. This survey is recognized as the world's largest and most comprehensive global measurement of financial literacy, examining knowledge of four basic financial concepts: risk diversification, inflation, numeracy, and interest compounding. This metric is based on interviews with over 150,000 adults in more than 140 countries and was created in collaboration with Gallup, Inc., the World Bank Development Research Group, and GFLEC. The second part of our research survey lists the five questions that were distributed to our sample (see Appendix B). The analyses included comparing the responses of Hispanic and non-Hispanic participants to each financial literacy question. Table 4 provides a summary of these results. We provide a detailed explanation of the results for each metric below.

Table 4: Comparison of Financial Knowledge Metrics Between Hispanic and Non-Hispanic Groups

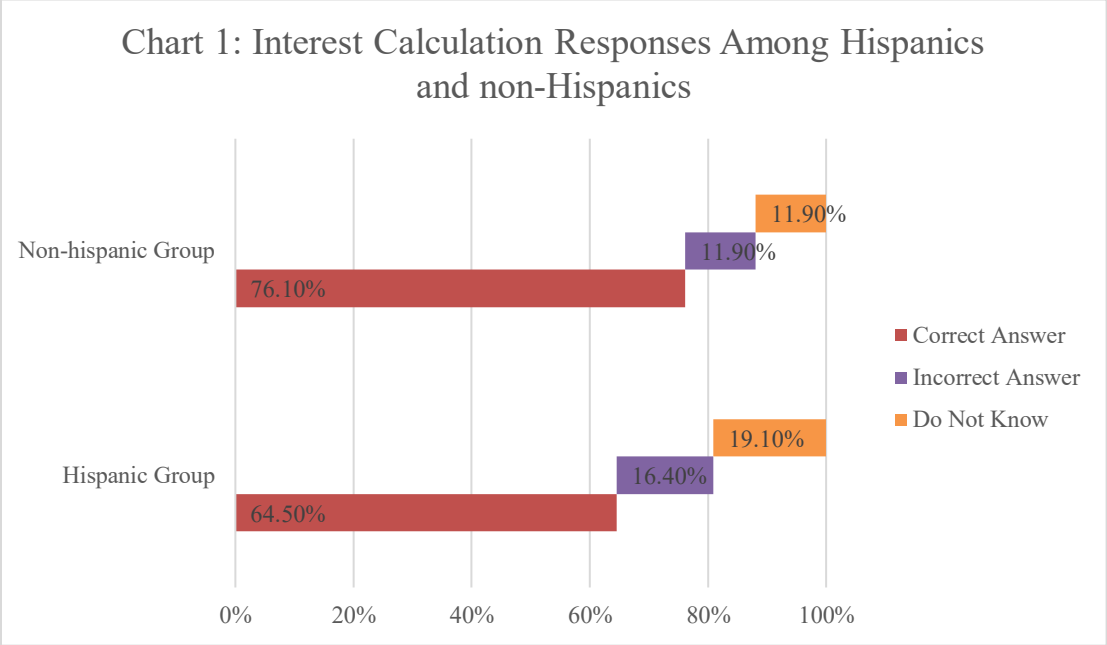
	Hispanic Group			Non-Hispanic Group			χ^2	Sig
	Correct	Incorrect	Do not know	Correct	Incorrect	Do not know		
Interest Calculation	64.5%	16.4%	19.1%	76.1%	11.9%	11.9%	6.76	.034**
Inflation Calculation	54.8%	17.3%	27.9%	61.0%	21.4%	17.6%	6.30	.043**
Bond Price Calculation	23%	32.7%	44.2%	27.0%	40.9%	32.1%	6.67	.036**
Mortgage Rate Calculation	61.4%	7.4%	31.2%	62.3%	8.4%	29.2%	.29	.866
Stock Market Knowledge	6.2%	45.8%	48.0%	7.1%	50.6%	42.2%	1.43	.490

*Significance levels: $p \leq .05$***

Interest Calculation

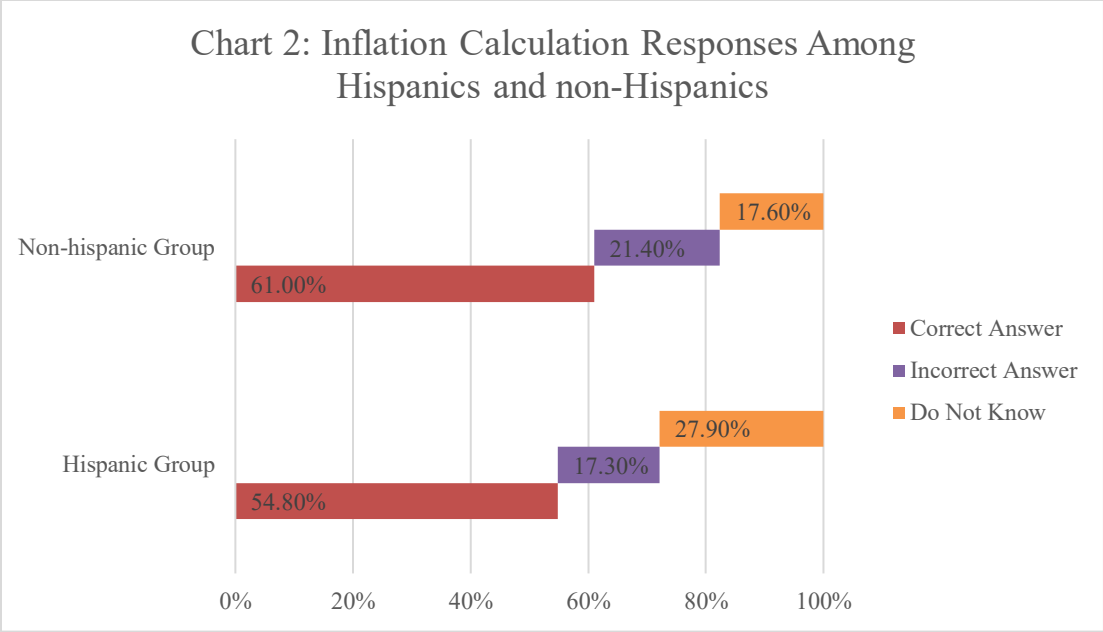
In the assessment of financial knowledge, specifically understanding interest accumulation, the data shows that 64.5% of Hispanic students answered correctly, compared to 76.1% of non-Hispanic students. Incorrect responses were given by 16.4% of Hispanic and 11.9% of non-

Hispanic students, while 19.1% of Hispanic and 11.9% of non-Hispanic students admitted to not knowing the answer. The Chi-square test results ($\chi^2 = 6.76$, $p < .05$) indicate a statistically significant difference in knowledge between the two groups, suggesting that non-Hispanic students demonstrated a stronger understanding of interest calculation than their Hispanic counterparts. Chart 1 provides a visual presentation of these results.



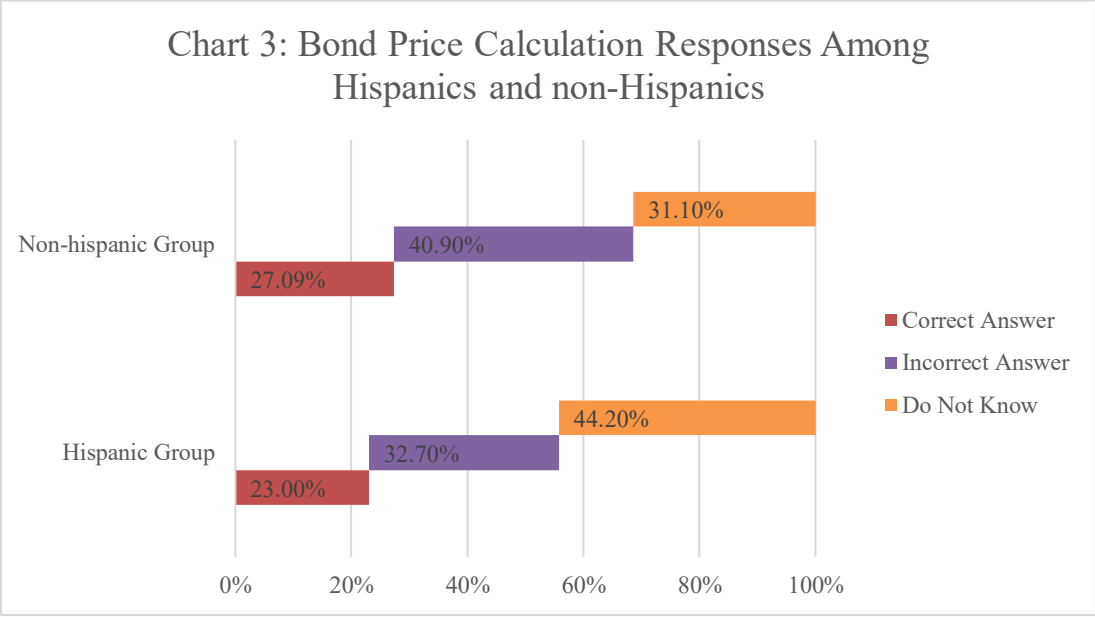
Inflation Calculation

In analyzing financial knowledge questions about inflation across different ethnic groups, 54.8% of Hispanic students correctly answered the test question, compared to 61.0% of non-Hispanic students. Incorrect responses were provided by 17.3% of Hispanics and 21.4% of non-Hispanics, while 27.9% of Hispanics and 17.6% of non-Hispanics reported not knowing the answer. The Chi-square test results ($\chi^2 = 6.30$, $p < .05$) indicate a significant difference in understanding of inflation between Hispanic and non-Hispanic students, albeit the difference is modest. This suggests that while there is some variability in comprehension between the groups, both demonstrated a general level of understanding, with non-Hispanics having a slight edge in correctly understanding inflation. The results are illustrated in Chart 2.



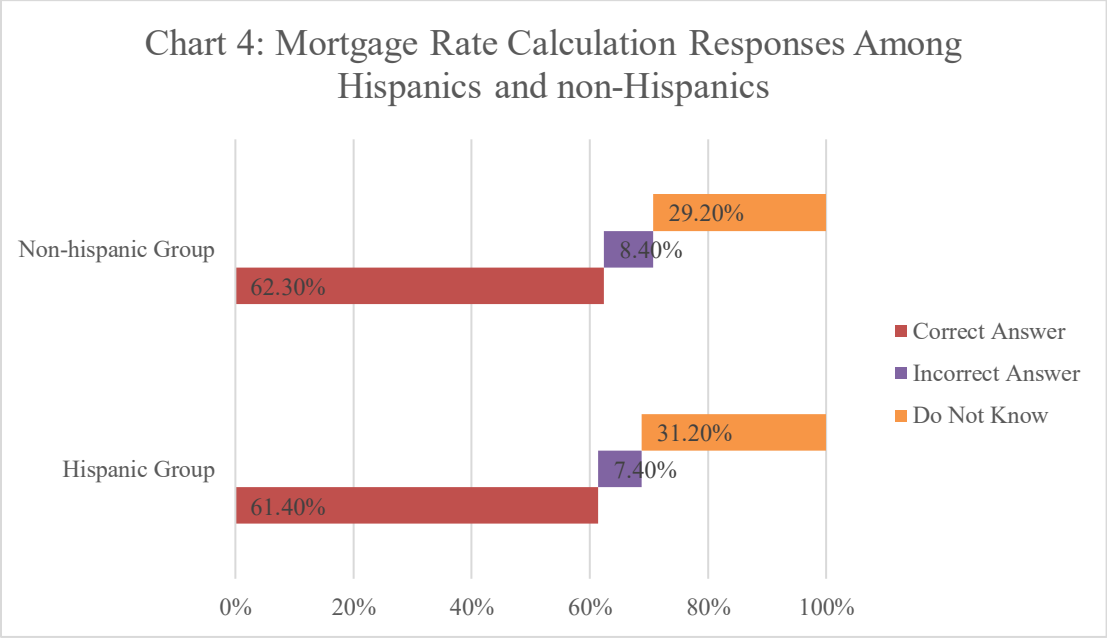
Bond Price Calculation

In the financial knowledge assessment regarding bonds, 23.0% of Hispanic students and 27.0% of non-Hispanic students answered correctly. The rates of incorrect answers were 32.7% for Hispanics and 40.9% for non-Hispanics, while 44.2% of Hispanics and 32.1% of non-Hispanics chose "Do not know". The Chi-Square test results ($\chi^2 = 6.67$, $p < .05$) reveal a significant difference in knowledge concerning the bond concept between the two groups, with non-Hispanic students displaying slightly better understanding. These results are presented in Chart 3.



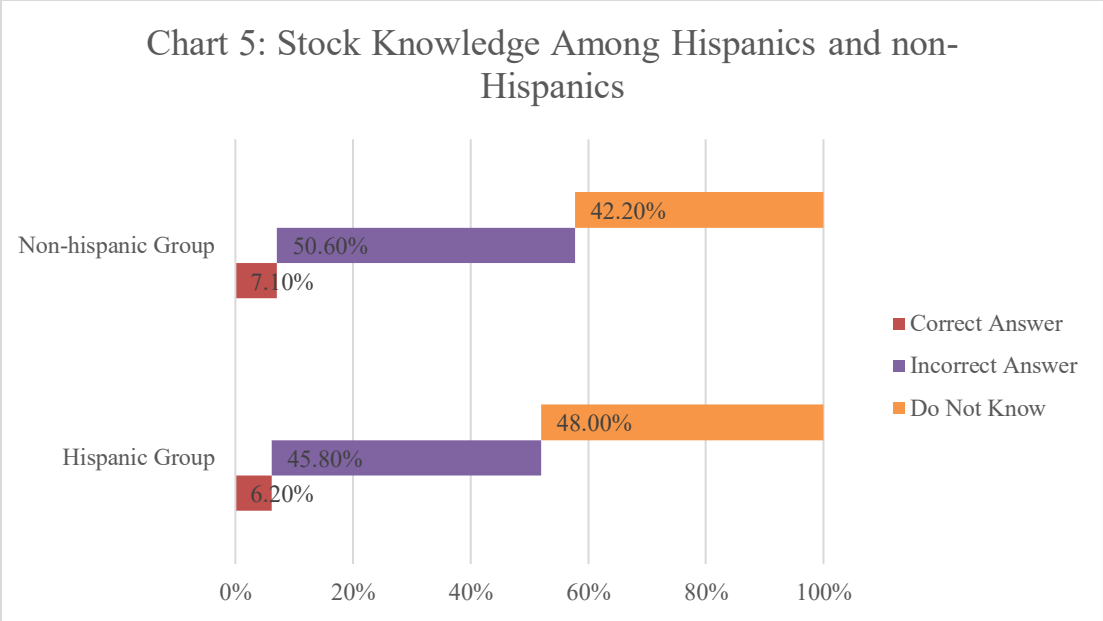
Mortgage Rate Calculation

For the knowledge question testing financial literacy about mortgage rate calculation, the analysis shows that both Hispanic (61.4%) and non-Hispanic (62.3%) groups showed similar understanding of the mortgage principle. The Chi-Square test results ($\chi^2 = .289$, $p > .8$) suggest no significant difference between the ethnic groups in their understanding of this financial concept. However, a notable percentage of participants from both groups, 31.2% Hispanic participants and 29.2% non-Hispanic participants, responded "Do not know". This indicates similar uncertainty or lack of confidence in answering the question across both groups. Chart 4 illustrates the mortgage rate calculation results.



Stock Market Knowledge

According to the analysis regarding financial knowledge in the stock market, only 6.2% of Hispanics and 7.1% of non-Hispanics responded correctly. A larger portion, 45.8% of Hispanics and 50.6% of non-Hispanics, correctly indicated that this statement was false. Interestingly, nearly half of the Hispanics (48%) and 42.2% of non-Hispanics were unsure, highlighting a significant knowledge gap in investment risk management. The Chi-Square test ($\chi^2 = 1.43$, $p > .5$) showed no significant difference between the groups, suggesting similar levels of understanding and uncertainty regarding investment safety across ethnicities. Chart 5 shows these results.



Conclusion

This study conducted a comparative analysis of financial knowledge and behaviors among Hispanic and non-Hispanic college students at a large Hispanic-serving university in the United States, yielding several significant insights into observed disparities and shared challenges. Our results showed that non-Hispanic students display the habit of regularly tracking their expenses more frequently than their Hispanic counterparts. Furthermore, non-Hispanic students tend to engage more often in monthly budget preparation than Hispanic students. These findings collectively indicate a discernible difference in the proactive financial planning behaviors between these two groups, with non-Hispanic students demonstrating greater engagement in fundamental financial management practices.

Moreover, it appears that both groups report a low sense of confidence in managing their finances; however, Hispanic students, more so than non-Hispanic students, feel less secure in financial situations. This feeling of financial insecurity is further emphasized by the fact that Hispanic students are more likely than non-Hispanic students to have less than $400 set aside for emergencies. Related to baseline financial knowledge, non-Hispanic students displayed a better understanding of interest calculations and inflation knowledge. Cumulatively, these findings strongly suggest that Hispanic college students face more pronounced financial knowledge and financial behavior challenges compared to their non-Hispanic counterparts, indicating a relative disadvantage in several key areas of financial literacy and preparedness.

However, it is also critical to note that both Hispanic and non-Hispanic students exhibited a significant lack of knowledge in more complex financial literacy topics such as bonds and stock market investment risk. This shared deficiency underscores a broader systemic gap in financial education, suggesting that while targeted interventions are crucial for addressing disparities affecting Hispanic students, there is also a universal need to enhance financial literacy curricula for all college students, particularly concerning advanced investment concepts. These results highlight an important need for financial literacy interventions and upward economic mobility initiatives (Gill & Bhattacharya, 2017) that can enhance college students' financial knowledge and financial behavior, specifically for young Hispanic adults.

Beyond these ethnic distinctions, our analysis also extended to explore the impact of first-generation college student status on financial literacy and behaviors. The findings reveal significant disparities in expense tracking and perceived financial security, with first-generation college students reporting lower scores than their peers. While other financial behaviors and knowledge metrics (such as preparing monthly budgets and financial goal-setting practices) did not show significant differences between first-generation and non-first-generation students, it is crucial to acknowledge potential limitations in these specific analyses. Specifically, the notable sample size disparity between first-generation (N=284) and non-first-generation Hispanic students (N=43) may have obscured actual differences in financial behaviors and knowledge within that subgroup, suggesting a need for future research with more balanced sample sizes to conclusively explore these relationships. Conversely, the lack of observed differences within the non-Hispanic group, despite having more similar sample sizes (first-generation N=75, non-first-generation N=69), indicates that factors beyond sample size may be at play in explaining these outcomes, warranting further investigation into the nuances of financial literacy and behavior across diverse student populations.

Our study is subject to limitations. First, the observed financial behaviors and self-reported financial security among the college students in this study may be influenced by socioeconomic factors and the financial behaviors modeled by their parents or families. Second, as with all self-report measures, student responses to financial behavior questions may be susceptible to social desirability bias (Paulhus, 1984), potentially leading to an over-reporting of socially desirable financial practices. Third, students' self-assessed confidence and comfort with personal financial management are complex constructs likely shaped by a myriad of intrinsic and extrinsic factors (e.g., financial aspirations, beliefs about future employment, the prevailing economic climate, and family obligations) that were not comprehensively assessed within the scope of this study. These limitations suggest important avenues for future inquiry. Subsequent research could employ qualitative methodologies, such as in-depth interviews with Hispanic college students. This approach would allow for a more nuanced exploration of their actual

financial behaviors, perceived financial confidence, and underlying comfort levels, thereby elucidating the intrinsic and extrinsic factors that shape their financial characteristics and decision-making processes.

Recommendations

Our research findings provide pathways for developing strategies and policies to improve financial education programs tailored to the unique financial needs, perceptions, and experiences of Hispanic populations. Developing culturally sensitive programs that align with the Hispanic community's cultural values and beliefs is crucial. Financial literacy programs must prioritize inclusiveness and equitable access to resources. This involves considering various relevant population characteristics, selecting appropriate delivery modes, removing barriers to access and participation, and designing culturally sensitive curricula. The literature identifies numerous relevant characteristics, including gender, race, age, generation, cultural factors, socioeconomic background, and educational level. Our findings specifically highlight characteristics of Hispanic college students, most of whom are first-generation college students. Consequently, programs should incorporate activities and feedback that are sensitive to the unique needs and characteristics of this group. Based on our research findings, we discuss recommendations for educators, policymakers, and stakeholders to consider when developing and implementing financial literacy programs.

First, insights from our research indicate that Hispanic populations feel less financially secure and are less likely to have emergency funds. To address this disparity, financial literacy programs can implement a consistent core curriculum that emphasizes strong foundational comprehension and real-life application of financial concepts. Several studies reveal that active learning teaching methods for financial concepts benefit students' interest, motivation and long-term investment outcomes (Kaiser & Menkhoff, 2022; McCullough & Munro, 2016). Thus, financial literacy programs could benefit from focusing on practical exercises and demonstrating the benefits of diligently applying financial knowledge. Key topics such as budgeting, debt management, the time value of money, and financial planning might serve as essential components of this core curriculum, as they could provide valuable knowledge applicable at any stage of life. Equipping Hispanic college students with financial knowledge about these key topics may aid in fostering the necessary skills to help them achieve financial security and resilience.

Second, based on our findings that Hispanic students exhibit distinct financial behaviors compared to other groups, we recommend that financial literacy programs integrate financial mindset (e.g., attitudes, beliefs, and past experiences) considerations into their design and

instruction to address participants' diverse needs and challenges effectively. Some aspects of financial mindset include fostering discipline in consistent budget tracking, reducing tendencies toward overindulgence such as lifestyle inflation, and building confidence to address insecurities. Programs should also help individuals overcome aversion to risk (Coleman, 2003; Fang et al., 2013; Yao et al., 2005), address biases like overconfidence (Lee & Kim, 2022) and challenge limiting cultural beliefs (such as superstitions around life insurance). By tackling these behavioral factors, financial literacy programs can foster a mindset that encourages active and sound participation in financial practices, ultimately promoting greater financial stability and success.

Third, our findings reveal that Hispanic students, compared to non-Hispanic students, are less likely to practice goal setting or discuss finances with their families. To address this, financial literacy programs should help participants set purpose-driven and SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals and provide methods for tracking progress toward these benchmarks. Incentives, recognition, and guest speakers can increase interest and motivate participation in workshops. These programs should emphasize the practical execution of concepts through the establishment of accountability teams and regular progress tracking. Accountability teams, composed of peers or family members, can objectively monitor goal progress towards specific benchmarks, such as target debt ratios, emergency fund amounts, savings goals, investment goals, and risk reduction targets. Access to experts will enhance the quality of feedback, provide personalized advice, and boost participants' confidence.

Furthermore, financial literacy programs may emphasize communal and social learning, particularly given the strong familial ties and extended family participation common among Hispanic populations (Borden et al., 2006; National Endowment for Financial Education, 2018). Therefore, we recommend a structure that incorporates intergenerational social learning, including workshops and family events. These programs should offer bilingual literacy resources to facilitate participation from both students and their families. For example, a weekend community event could disseminate information and provide consultations. Resources should include formal materials, such as pamphlets and videos, to encourage intergenerational financial discussions. Bilingual instruction and resource development are essential to engage and educate this demographic effectively.

Finally, our analysis suggests that first-generation college students are less likely to track their expenses and feel less financially secure compared to their non-first-generation peers. To address this, we recommend implementing peer mentorship programs pairing first-generation students with upper-level students or alumni experienced in navigating financial challenges.

Establishing a mentoring agenda will ensure uniformity and quality control, and enable mentees to become peer mentors when they advance to upper-level students. Mentorship topics should be delivered through various mediums, beyond in-person interactions, to accommodate barriers to access.

It should be noted that we do not claim the aforementioned suggestions will resolve all issues related to the effectiveness and efficiency of programs targeting Hispanic students. Instead, we propose these recommendations as strategies to narrow the gap and enhance knowledge acquisition on how best to provide financial literacy programs to Hispanic communities. Any progress in closing the financial literacy achievement gap constitutes a significant step toward reducing social and economic inequities. We look forward to the insights generated by scholars who implement and incorporate these recommendations into financial literacy programs.

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