Early College Cost Financial Coaching:

An Intervention to Reduce Financial Barriers for Low-Income First-Year Students

by

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ABSTRACT

Financial literacy is an area of knowledge with which many Americans struggle. For students transitioning from a free public K-12 system to a pay-to-attend system in higher education, understanding the actual cost of college becomes vital so they can persist to graduation. This study focused on low-income, campus-housed first-year students in the School of Computing and Augmented Intelligence at Arizona State University. Incoming students were provided with early college financial coaching during the summer prior to their fall semester to investigate how the program might affect participants' college cost financial literacy, the level of outstanding balances, and intent to register for the spring semester post-intervention. The students participated in Smart Start, an early college cost financial coaching program. The program included three one-on-one coaching sessions encompassing an in-depth overview of mandatory and flexible college costs, setting and updating a college budget, and constructing financial SMART goals. In this mixed methods study, participants took a pre-and post-survey and participated in a culminating interview. The study results demonstrated an improvement in college cost financial literacy, inconclusive results regarding participant balances owed to the university at the beginning of the fall, and no immediate impact on how students describe their intent to persist.

Keywords*:* college cost, financial coaching, financial literacy, low-income students, first–year students

DEDICATION

Teachers are powerful beings. They can lift you to the stars or push you underground. In my journey as a student, I have had both types.

Dr. Ray Padilla was a dreamer and a magician. He loved to learn and planted those seeds with everyone he met. I firmly believe that he molded my belief in my ability to be anything I wanted to be, including a doctoral student. His voice of belief still echoes in my ear today. It helped to carry me through the long nights of this work. As I move forward in my career as an advisor and professor, I hope to whisper this belief in self to my students.

Dr. Ray Padilla, gracias por todo, que descanse en paz.

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DEFINITION OF TERMS

Coaching: for purposes of this study, the term "coaching" is assisting individuals define financial goals, create plans of action, and execute steps toward their goals (Collins & O'Rourke, 2012). The coaching intervention that I implemented consisted of at least three conversations or meetings between a student and a coach, where several topics were discussed, goals were established, and the next steps were constructed.

Direct costs: costs billed directly to a student's financial account by the university.

First-year student: a student attending a university for the first time and enrolled in at least twelve hours of coursework as a full-time student.

In-state students: students whom the university has classified as eligible for in-state tuition.

Low-income: students who are eligible for the federal government's Pell Grant.

Out-of-pocket costs: This amount is also referred to as the "Net Price". In this study, "out-of-pocket costs" refers to the cost that students must pay after deducting scholarships and grants from the institution's cost of attendance. Personal funds or loans can be leveraged to pay these costs.

CHAPTER 1: INTRODUCTION AND PURPOSE OF THE STUDY

> Like all learning, financial education is a process that should begin early and continue throughout life. This cumulative process builds the skills necessary for making critical financial decisions that affect one's ability to attain the assets, such as education, property, and savings, that improve economic well-being.
>
> – Alan Greenspan, former chair of the Federal Reserve of the USA

Education is the key to financial and personal success, which is the hypothesis of how to reach the American dream. Yet, there is a high price tag on this path to success. In an age where obtaining a college education is critical to a steady and secure job, the price of attending a higher education institution is an important issue. This issue is compounded by the ongoing increase in college tuition and fees, reduced local financial support for college costs, and increased student use of loans (Pell Institute for the Study of Opportunity in Higher Education and Penn Alliance for Higher Education and Democracy, 2020). Students often pay for their college education through student loans (Velez et al., 2017; "Beyond Tuition," 2018). Over the past several decades, there has been a sharp increase both in the rate of borrowing and the average amount borrowed; collectively, over a fifth of Americans owe an estimated $1.5 trillion in federal loans (Velez et al., 2017; "Beyond Tuition," 2018). This prominence of student loan use is nationwide, where 53% of all traditional-age students (i.e., 15- to 23-year-olds) use student loans (Hanson, 2021). In addition, low-income students are especially likely to borrow to cover college costs. They are more susceptible to dropping out before degree completion, thus incurring debt levels that may cause the replication of poverty ("Beyond Tuition," 2018). Students who depart college before completing their degree struggle financially because they cannot experience the financial benefit of the labor market like a person with a degree (Houle & Warner, 2017). An example of this financial struggle is demonstrated in the difference in homeownership participation between students who do or do not complete their degrees. Students who do not complete college showed over a 40 percent higher likelihood of moving back in with their parents or guardians when compared with their counterparts from similar institutions who completed their degrees and purchased homes (Houle & Warner, 2017).

College cost is an important issue, and various organizations and scholars have looked at financial literacy within the context of college choice and matriculation. Financial literacy is defined as “the knowledge and skills to effectively manage financial resources” and “to manage one's financial affairs in a way that contributes to overall well-being” (Bradley, 2021, p. 1). Financial literacy is essential when students select a higher education institution. The College Board, one of higher education’s most prominent and relied-upon entities for college access, encourages students to familiarize themselves with college costs, including understanding net price vs. sticker price, keeping costs low, and learning about financial aid (Ma & Pender, 2021). Chavez and Lachs (2021) of the Making Waves Education Foundation, an organization committed to serving underrepresented students by making college affordable and graduation attainable, emphasize the importance of understanding college costs to be pivotal for students when finding their *financial fit* with an institution. They define financial fit as a college's social, emotional, academic, and financial components. Based on these parameters, students need to discern which school best “fits” their needs and preferences. Chavez and Lachs (2021) see college selection as being crucial because it is an overall expensive endeavor, and the decision must be sustainable in the long run. They note, “making the wrong decision can cost a student and family thousands of dollars and ultimately derail or delay a student’s progress toward earning a degree” (Chavez and Lachs, 2021, Para. 1).

To discourage this educational derailment, experts call for a shift in college cost financial literacy and planning to occur. Recently, the United States Government Accountability Office (GAO) called on institutions to provide clear information on the true costs of attending college, as well as non-misleading information on available aid through financial aid offer letters (Emrey-Arras, 2022). The GAO found that 41% of colleges do not include net price information, and about 50% understate net price. The GAO’s overarching concern is that nationwide, students do not have the necessary information to guide them in their financial choices for college. This information gap can lead students to make uninformed and financially harmful decisions, such as selecting an unaffordable college.

The research conducted here was an attempt to provide students with more information to guide their financial decisions for college. Zingg (2020) emphasizes that students will benefit from receiving training on personal finances. Such information is particularly relevant when individuals transition to college because it is a pivotal moment in their lives where they move into adulthood and all its accompanying rights and responsibilities, including fiscal decision-making (Gerrans, 2021; Hagadorn, 2017; Supiano, 2008; Cummins et al., 2009). Specifically, first-year college students accrue costs fairly quickly during their transition to college. In addition, 53% of students report feeling less prepared to manage their finances than any other challenge connected with attending college (Zingg, 2020). According to Champlain College Center for Financial

Literacy's 2017 report, *The Case for High School Financial Literacy*, many high school students do not understand the financial aspects of college attendance (Pelletier, 2017). The report echoes Zingg's argument that providing formal financial literacy education to incoming college students is critical given the significant money-related decisions that young adults face.

In addition, scholars argue that ongoing support around financial literacy must come from a broad collection of university resources, not just the financial aid office (Supiano, 2008). To meet the need to support student financial learning, institutions can employ a variety of teaching models, including individual counseling, peer-facilitated counseling, interactive online programs, in-person classroom-based programs, game-based programs, and event-based programs (Hagadorn, 2017; Britt et al., 2016). Hitchcock (2012) wrote for the National Academic Advising Association (NACADA) that a way to increase student persistence is to increase student understanding of financial topics. Like Supiano (2008), who urged that universities leverage various resources to support student learning in this area, Hitchcock specifically called to engage academic advisors in this endeavor. She highlights that academic advisors are often the first institutional officers to spend substantial time with students. While advisors have a list of items to cover in that session, a holistic advising approach can easily incorporate financial topics as well. The holistic advising approach can assist students in understanding their ability to pay for college.

Rising Costs of College

A review of historical trends in college costs aids in understanding a student's financial obstacles**.** The cost of attending a four-year public university rose 201.1% in the last 21 years (Ma & Pender, 2021; Trends in College Pricing, 2000). This change in college costs gravely outpaced the available federal financial aid. Table 1 demonstrates the change in maximum federal aid (i.e., Pell Grants and Subsidized Loans) that occurred during that period. The table reveals that federal aid increased at a rate of 68.7%. Conversely, Table 2 demonstrates how the change in average costs of college increased substantially (Trends in College Pricing, 2000). The price for room, board, fees, and tuition rose 163.2%. This change in college costs outpaced the available federal aid by 237.6%.

Table 1

Aid Maximums for First-Year Students

	2000-2001	2021-2022	% Increase
Maximum Pell Grant	$3,300	$6,495	96.8%
Maximum Subsidized Loan for first-year student	$2,625	$3,500	33.3%
Total	$5,925	$9,995	68.7%

Table 2

Charges at Public Four-Year Public Institutions

	2000-2001	2020-2021	% Increase
Tuition and Fees	$3,510	$10,570	201.1%
Room and Board	$4,960	$11,720	136.3%
Total	$8,470	$22,290	163.2%

Finally, Table 3 reveals how these differences in cost and available aid may impact low-income students who rely on the full amount of the federal Pell Grant and subsidized loans to pay for college. The table illuminates how these students may be unable to meet university costs even if they apply the full amounts of available awards due to the considerable out-of-pocket cost remaining.

Table 3

Out-oocket for Four-Year Institutions

	2000-2001	2020-2021	% Increase
Tuition, Room and, Board	$8,470	$22,290	163.2%
Federal Aid	$5,925	$9,995	68.7%
Total	$2,545	$12,295	383.1%

Access to higher education is impacted by cost, and thus, the increase in cost disparately impacts students based on their socioeconomic status. A 2013 study of the differences in student loan debt usage between low-income Black and more affluent White first-year students revealed that low-income students relied more heavily on loans to pay for school (Jackson & Reynolds, 2013). The researchers found that while loans could help reduce racial inequality faced by Black students in their lifetime, the level of impact diminished by their higher loan amounts or if they did not persist to graduation. Other research has revealed that low-income and first-generation college students faced menacing financial barriers and reduced enrollment in higher education institutions due to rising tuition costs (Lopez & Rivera, 2022; Declercq & Verboven, 2015). The present study, therefore, focused on how college costs and knowledge of those costs impact low-income students and their intent to persist.

Low-Income Students in Higher Education

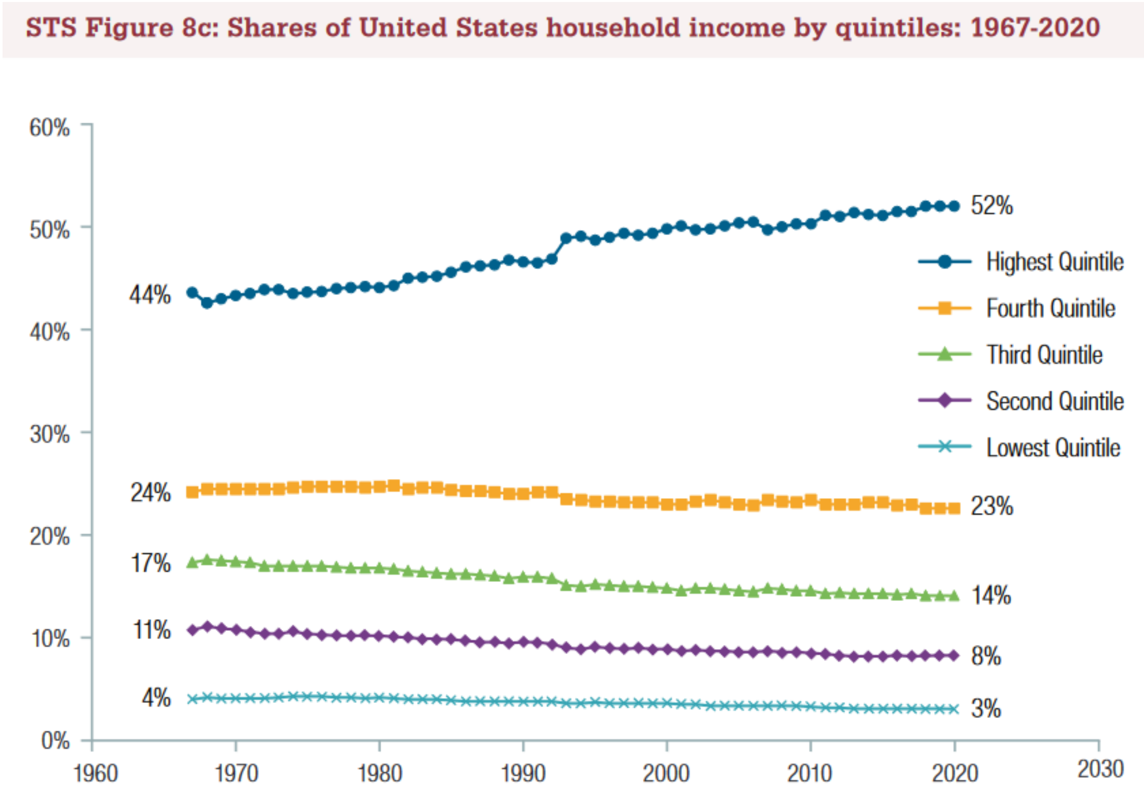
Higher education access in the United States began in 1640 as a pathway for elite upper-class White males to continue to serve in positions of power (Thelin, 2004). Over time, the advantages of obtaining a higher education have continued, specifically for the White upper class. The progression to include minoritized groups, described as a group of marginalized people not by their numerical representation in a community but by their position and worth in society in higher education, has not been a straightforward route (Bishop, 2013).

The history of minoritized populations participating in higher education begins with White women. Women were the first minoritized population eligible to participate in higher education, although in a limited manner, beginning in late 1772 via Salem College in North Carolina (Gurley-Alloway, 2009). But almost a century later, Black students were provided the opportunity to obtain a higher education. Oberlin College integrated its student body in 1835 (“Oberlin History,” 2021). The first higher education institution dedicated to African Americans was Cheyney University of Pennsylvania, founded in 1837, which focused on trades and agriculture to support the needs of the general economy (Cheyney University of Pennsylvania, 2019). This early opportunity for minoritized populations to participate in higher education was not allowed to provide a pathway for the group to move into power but to support the manual labor force that benefited the upper class.

Government-supported broad access to higher education for minoritized populations began with the Morrill Act of 1862, where federal lands were sold. Hence, colleges focused on agriculture and the mechanical arts could open (“Land-Grant College Act of 1862”, n.d.). The second Morrill Act of 1890 expanded access to postsecondary education to women, working-class students, and students from isolated areas and provided a pathway to a low-cost undergraduate education (Land-Grant College Act of 1862, n.d.). However, where students of color were concerned, the Land Grant Act denied resources to states that declined to admit non-white students and promoted establishing “separate but equal” facilities, thus encouraging the foundation of 17 Black colleges.

Currently, there remains a disproportionate representation of minoritized students in higher education, as compared to wealthy White counterparts (Gurley-Alloway, 2009). Specifically, when looking at wealth by race and ethnicity in the US, the 2022 Indicators of Higher Education Equity in the United States Report highlights the growing disparity in income in the last fifty years, where the wealth of those in the highest income quintiles has grown from 44% to 52%, while the bottom four quintiles dropped in some way in the same time frame (Brunt, 2022) (see table 4). In comparing the median wealth from 1983 and 2019, White median wealth was measured at $108,320 and $162,176, while Black wealth was measured at $7,188 and $9,111, and Hispanic median wealth was $4,151 and $14,173. Overall, this inequality in wealth filters into higher education as an unequal participation across the family income quintiles. From 1970 to 2020, the top quintiles participated at 74% -79%, while the bottom quintiles participated from 28%-48%. While this is an increase in participation, it is still considerably less than the increase experienced by the top quintile.

Table 4

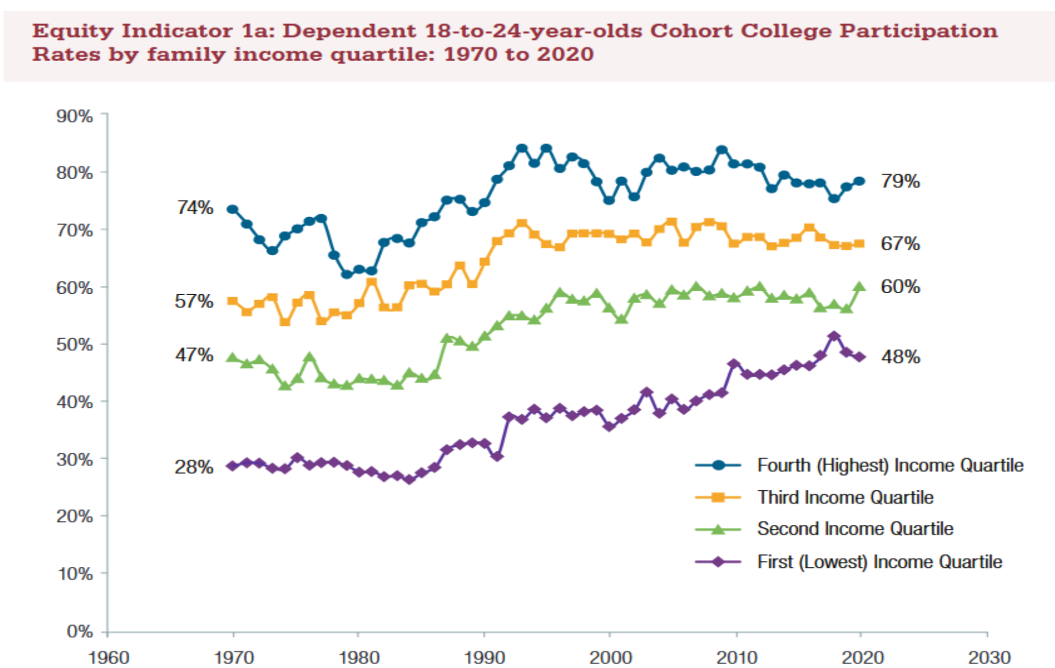


Note: Reprinted from "Indicators of Higher Education Equity in the United States: 2022 Historical Trend Report". by Cahalan et al., 2022, Pell Institute for the Study of Opportunity in Higher Education.

The Pell Grant Program

A focused attempt at expanding access to higher education for low-income students occurred in 1972 with the establishment of the Pell Grant program. The Pell Grant program was initially called the Basic Educational Opportunity Grant (BEOG) program. It was part of the federal student financial aid programs authorized by Title IV of the Higher Education Act (HEA) and administered by the Department of Education's Office of Student Financial Assistance. This program provides need-based grants to low-income undergraduate students as a means to subsidize their college education (Boren, 1991). The Pell Institute's yearly report, *Indicators of Higher Education Equity in the United States* (Cahalan et al., 2022), clarified that low-income students' participation in higher education increased from 28% to 48% in the last 50 years (table 5). Yet the increase this population experienced is substantially lower when compared to the 74% to 79% increase experienced by the highest income quintile. The BEOG and Pell Grant programs paved the way for more youth to participate in higher education, specifically low-income, women, and minoritized (Black and Hispanic) populations. It is important to highlight that there can be a deficit between available aid or personal resources and college costs for all students, yet for students in the bottom quintile, the inability to make up the gap in college costs may be most problematic, reinforcing their continued exclusion from higher education.

Table 5



Researcher Context and Problem of Practice

I am employed by the largest engineering department in the nation. Located in the desert Southwest, Arizona State University (ASU) is the largest university in the US according to overall student enrollment. ASU has six major locations, including Tempe, Downtown Phoenix, West Valley, Polytechnic, Online, and Lake Havasu, with a total enrollment of 142,616 students (ASU Campus Locations, n.d.). The largest enrollment is at the Tempe campus, with 57,588 students. The Fulton Schools of Engineering (FSE) is one of the largest engineering schools in the nation, with a total of 30,297 students, of which 21,370 are undergraduates. FSE comprises seven separate schools and is spread across three campuses: Tempe, Polytechnic, and Online.

In 2012, I began my career as an academic advisor. In my current position as a Retention Coordinator Senior in the engineering school, I focus on better understanding students individually and as part of various subgroups, hoping to increase retention rates and meet university goals. Notably, our school has an outstanding retention rate of 90.2%. This is higher than the most recently reported overall university rate for 2021 of 85.4% (Analytics, 2022.). This is the measurement of fall-to-fall enrollment for first-year students in a particular year. When considering fall-to-spring retention, the school traditionally retains students at 95% or higher. The students who are the focus of this study represent the other 5%, those who depart the university after their first semester. More specifically, I am interested in those who depart because they cannot pay tuition, fees, and campus housing costs.

Using an extensive data set created by the Dean's office each year for the first-year student population, I review and analyze various student characteristics and possible areas of concern as part of my job responsibilities. These data allow me to identify students who have a “financial hold” mid-way into the semester. In early October, financial holds are placed on student accounts owing over $3,000 to the university. After reviewing the institutional first-year student data sets, I observed that my unit - the School of Computing and Augmented Intelligence (SCAI), consistently loses approximately 30-40 students between the Fall and the Spring semesters; about half of the students leave due to financial balance holds. At first look, the issue may seem to be modest. Losing 15 to 20 students from fall to spring semesters due to financial holds in a class of 1,250 first-year students does not seem like an impactful issue. In my practice, these students are all important, and I am driven to explore their unique characteristics, i.e., are they high financial need, low financial need, minoritized students, etc.? As a retention professional, I am committed to ensuring all students have equitable opportunities to stay enrolled, finish their degrees, and use their college education to pursue productive and successful lives. I believe this is a severe and life-altering concern for those students who can no longer attend school.

It is important to understand the population of SCAI first-year students. Table 6 shows details of the population, including their levels of financial need and scholarship award status. It is important to note that the students are academically talented. Traditionally, about 93% of the incoming class has an academic scholarship (Arizona State University, 2021). These high-achieving students, talent-wise, should have similar opportunities to complete a degree.

Table 6

Financial Need and Scholarship Status of SCAI Students

	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Total SCAI Students	929	1187	1059	1255
SCAI Students with Scholarships	93.6%	93.1%	78.3%	92.7%
Low and Very Low Need	45.1%	46.0%	43.9%	43.9%
Moderate Need	10.4%	9.5%	8.1%	8.3%
High and Very High Need	25.8%	23.6%	31.3%	22.9%

Note: From ASU institutional data

In addition, Table 7 provides insight into the retention of different sets of students. Because this study is centered around low-income students, namely students designated at our institution as being High or Very High Need (HVHN) and eligible for Pell Grant funds, the table largely revolves around this population. In addition to financial need level, the sample of students recruited were in-state and living in university housing. This population will provide a precise investigation into the largest group of students in the cohort of incoming first-year students. The table shows a consistent disparity in the retention of students when considering financial need, specifically with HVHN student retention. In each of the included years, the largest difference in retention occurs between all SCAI students and low-income students.

Table 7

One-Year Retention Rates for Full-Time SCAI First-Year Students

Point in time frate-	Fall 2016	Fall 2017	Fall 2018	Fall 2019
All SCAI students	84.8%	87.0%	88.4%	87.5%
SCAI HVHN on-campus housed students	76.0%	71.9%	84.8%	66.7%

Note: High need as defined by Pell-eligible from those students that submitted a FAFSA.

These are the students at the center of this study, those low-income students who are not retained at the university. Specifically, this investigation was constructed because a group of students each fall cannot continue to the spring semester due to a financial hold on their university account. Yet, all students can select thousands of dollars worth of expense items, like university housing and meal plans, that they may not be able to cover financially, even with financial aid. Working alongside students and hearing about their experiences, I understand that individual events can lead to a student dropping out of college. Some of the reasons are unforeseeable, including medical and personal issues, but other issues may be avoidable, like financial holds due to balances to the university billed items like those previously mentioned. These holds might be avoidable if students had earlier information on college costs and how to use their university and personal resources to make more educated financial decisions (Emery-Arras, 2022). Notably, by mid-October, students may already have a registration hold on their student accounts caused by an outstanding fall semester balance to the university. When a student hits the maximum outstanding balance of $3,000 to the school, the university's student record management system prevents course registration in the following semesters until the balance is paid down to the $3,000 threshold. In addition, if a student with a balance exceeding $3,000 from the fall semester is prevented from registering for the spring semester and living in campus housing, they will have to vacate their housing unit since only registered students can live in the halls. This, in essence, can push students out of the university and leave them without a place to live.

Every fall, I see students in this predicament, which is how I identified the Problem of Practice that is the focus of this dissertation study. In my routine work of reviewing the characteristics of the students that might fall into this type of quicksand, I found that students were at greater risk for financial pushout if they had high or very high financial needs and chose to live on campus. The published cost of attendance for in-state students to attend the university and live on campus in the 2021-2022 academic year was about $31,499 (see Table 8). The items that are directly billed to student accounts by the university for the fall semester are tuition, fees, housing, and meals. These items account for $13,390 of the $15,749 overall costs for a semester. A first-year student could ostensibly enroll in the university and be charged this amount, even if they cannot pay. The university does not have any policies or practices in place to confirm that all students have secured the resources to cover their yearly charges fully, nor do most students have access to personalized support from a financial aid counselor.

Table 8

Estimated Cost of Attendance for an In-State Undergraduate Student, 2021-2022

Item	Cost
Base Tuition	$10,710
Undergraduate College Fee	$1,050
Student-Initiated Fees	$633
On-campus Housing and Meals	$14,398
Books and Supplies	$1,300
Transportation	$1,376
Personal	$1,982
Total per Year	$31,499
Total per Semester	$15,749

Note: ASU Institutional data

Low-income students are particularly vulnerable to finding themselves in a situation where their maximum grants and loans are insufficient to cover semester tuition, fees, housing, and meals. Table 9 shows how the balance of a fully Pell-eligible student who accepts the full fall semester loan will still have an outstanding balance well over the $3,000 threshold.

Table 9

Summary of Financial Assistance if Maximum Pell and Loan is Applied

	2021-2022
Total Cost for the fall semester	$15,724
Maximum Subsidized Loan and Pell Grant Semester	$4,997
Difference in cost and aid	$10,727

In addition, although about 93% of my department's 2021-2022 first-year students had a scholarship, only 10.5% of these awards were sufficient to cover tuition, fees, room, and board fully. Another 9% had a university scholarship sufficient to pay at least all of their tuition, leaving approximately 80% of those with partial tuition coverage still needing to secure additional loans or other resources to finance their education (Analytics, 2022). This indicates that while the university provides financial assistance, many academically talented students with high financial needs may have a sizable balance owed to the university.

I believe the issue begins with what I characterize as the "open tab" the university provides all students. All students are allowed to register for classes and secure on-campus housing without showing an ability to pay the full amount through grants, loans, or other means. This practice can allow an in-state student to easily commit to approximately $13,400 in tuition and living expenses in a single semester. For those who do not have sufficient financial aid or resources in place to cover their costs, it can stop them from continuing their education and change the trajectory of their financial and educational future after just one semester at the university. As a retention professional, I see the opportunity to assist these students trapped in this debt pitfall. In this study, I used an early college financial coaching intervention that stems from this Problem of Practice.

I hoped to assist students who traditionally are not able to continue after just one semester.

Problem of Practice (PoP) Synopsis & Research Questions

First-year college students often commence their educational endeavors by imagining all the experiences they are about to have that ultimately culminate on graduation day when they get their degrees. Yet, for some students, that vision is short-lived due to experiencing an institutional stop in their education because of almost immediate financial constraints. At Arizona State University, first-semester students can incur over a $13,400 balance to the university with no questions asked, no credit check, or no independent review of ability to pay. This open tab practice allows some students to enter a debt where their financial aid and personal funds do not cover their costs. Although the university does have a payment plan that students with a $500 balance or more are automatically enrolled in, if the balance to the university is over $3,000 when registration opens up for the next term, it will cause a hold on registration until it is paid down below $3,000 (“ASU Payment Plan,” 2022). This hold will remain and will accrue late fees until paid. If the student does not have the resources to pay it down, the balance can potentially end their college career.

Yet, retention is a closely monitored measure of institutional performance. Universities work hard to tout high levels of retention. At Arizona State University, it is the same. The retention rate has increased to 87%, much greater than the 61% national average rate for public four-year open-admission institutions (National Center for Education Statistics, 2021). But students are not just statistics; they are individuals with educational goals. It is the other 13%, those who are not retained and drop out of college prior to graduating, who are the concern for this inquiry.

Specifically, within SCAI, there is a population of students who use the institutional open tab to pay for their 1st semester costs at the university and are unable to continue because of the outstanding balance in their student accounts. Although there are general resources like recorded and live webinars on how to read financial aid offers and iGrad software that promotes financial wellness, there is little, if any, direct and individualized guidance for students on how to make financial choices that will help ensure they do not face registration issues in the second term. Student workers primarily staff our Financial Aid and Scholarship Services offices while full-time university staff is minimal. There are less than a hundred full-time university staff members available to help the 142,616 students. Comparatively, there are about five hundred academic advisors that service the same student population (Arizona State University, n.d). This space between services provided and services needed creates an opportunity to provide additional support to students, especially those with higher financial needs. The research was focused on answering the following questions:

> RQ1 How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university?
>
> RQ2: After participating in early college financial coaching, how much outstanding debt do first-year low-income university-housed students assume as of the commencement of the fall semester?

RQ3: How does participating in early college financial coaching impact how first-year low-income students describe their intent to persist?

CHAPTER 2:
REVIEW OF THE LITERATURE

In this chapter, I provide a brief history of American college funding and costs, including a review of how funding for higher education has changed through the years and how those changes impact students. Additionally, I look at research on the college financial literacy that students require to navigate the higher education system and how colleges and universities can improve students' financial literacy via targeted coaching. I then explain the role of institutional policies and practices that can improve low-income students' financial literacy and the specialized area of college cost financial literacy through coaching by advisors. I follow up by reviewing persistence and intent to persist by college students. Finally, I review the applicability of the theoretical concept of the Model of Institutional Action for Student Success that guides this study.

American College Funding and Costs

To provide context behind my study's emphasis on improving the college cost financial literacy of low-income undergraduate students, it is important to review the factors that have influenced the history of college funding in the U.S. In particular, the shift away from state-subsidized higher education has increased the out-of-pocket costs for all students to attend college (Mitchell et al., 2019; Archibald & Feldman, 2018). Notably, the burden has disproportionately fallen on students of color from low and middle-income backgrounds, which contributed to more significant racial and class disparity (Mitchell et al., 2019).

Private individuals and state governments provided the primary funding sources to cover the cost of running colleges up through the mid-twentieth century. The Serviceman's Readjustment Act of 1944, or GI Bill, awarded millions the chance to attend college for virtually no cost (Zhang, 2018). Beginning in the 1970s, a change occurred: inflation and a slowing economy caused the federal government to shift its higher education funding policies away from direct grants awarded to low- and middle-income students in favor of loans requiring repayment. Moreover, a reduction in direct financial investment and support from states to their public colleges and universities accelerated during the 2008 recession (Mitchell et al., 2019). States shifted their budget allocation away from higher education, leaving institutions and students responsible for the bulk of the overall costs of a college education. Archibald and Feldman (2018) explain that between 1990 and 2001, state appropriations fell by 19.9% for full-time students. In response, institutions explored additional revenues from various sources, such as tuition, student fee increases, and auxiliary services (such as meals, parking, and sports) to offset the decline in public support.

The Long-Term Benefit of Completing College

While the cost of a college degree can be high, there are definite benefits to completing a degree. Researchers have studied the overall long-term benefits of completing a college degree and found many positive outcomes including increased wages and overall household income, less unemployment, higher-paying jobs, more job certainty, less poverty, and less need to utilize public assistance (Brand, 2023; Oreopoulo & Petronijevics, 2013). The benefits are more prominent and beneficial to students from lower socio-economic backgrounds, where the benefits can be dramatic and enduring, significantly impacting the life trajectory of students (Adair, 2001). Brand (2023) emphasizes that all students from both lower- and higher-socioeconomic backgrounds will observe greater long-term earnings, less job instability and unemployment, and more tax revenue for their communities. College graduates will also rely less on social assistance and have increased levels of civic engagement, which suggests that public investment in higher education for youth from disadvantaged backgrounds returns widespread and comprehensive benefits to society and students alike.

The Long-Term Cost of Not Completing College

Conversely, the impact on students not graduating is the opposite of the abovementioned benefits. Students who do not complete their college degree are more likely to experience higher unemployment rates, have lower-wage jobs, have poorer health and higher mortality rates, participate in criminal behavior, experience incarceration, and depend on public assistance. They are also less likely to participate in civil service such as voting (Adair, 2001; Waktola, 2018). Notably, it is those who are in lower socioeconomic levels or part of minoritized communities that do not complete their degrees at higher rates. The U.S. Department of Education reported that up to 59% of low-income college students fail to graduate (Bowen et al., 2009; Waktola, 2018). These low-income students are more likely to use loans to cover college costs and incur debt levels that may cause the replication of poverty when they drop out (“Beyond Tuition,” 2018). Students who leave college before earning their degree may face financial challenges as they miss out on the economic advantages of a completed degree, unlike those who have successfully graduated. (Houle & Warner, 2017).

Financial Literacy Amongst College Students

Financial literacy, sometimes called financial knowledge, is a prevalent topic. Financial literacy is defined as "the skills, knowledge, and tools that equip people to make individual financial decisions and actions to attain their goals" (National Descriptive Report, 2020, p. 2). In general, researchers have found that many college students lack awareness about their personal finances. Joo et al. (2008) researched 503 undergraduate students in a large southwestern university to examine the traits of students who either dropped out of college or reduced their credit hours due to financial reasons. Approximately half of the participants saw themselves as knowledgeable (39.9%) or very knowledgeable (10.4%) about their finances, leaving the other half lacking the belief in their financial knowledge. Similarly, the *College Pulse, Student Voice (2022)* survey study found that less than half of the study participants (n=2000) characterize their financial literacy as "excellent" (7%) or "good" (35%), and the majority admit to being "fair" or "poor" (57%) (College Pulse, 2022). Cummins et al. (2009) illuminated how 33% of students believe that they "never have enough money," and 18% indicated "they spend more than they earned" (p. 17). These researchers utilized first-year seminar classes to investigate the financial attitudes, perceptions, and spending behaviors of first-year students at Idaho State University in the fall of 2004. A total of 117 students participated and provided written answers to both open and Likert-scaled questions. The study found that students do have some basic financial knowledge and recommended direct financial training through a money management session at orientation for first-year students. However, it did not provide direct data or avenues for further study.

Measures of Financial Literacy and College Students

National Student Financial Wellness Study. The National Student Financial Wellness Study (NSFWS) is a comprehensive research initiative that utilizes a multifaceted approach to examining the financial attitudes, practices, and knowledge of students from two- and four-year institutions in the United States ("National Descriptive Report" 2020). The purpose of the survey is to obtain a more in-depth and precise understanding of college students' financial wellness. It investigates three areas of student financial wellness: paying for college and debt, financial strain and precarity, and financial education and capability.

This survey has been administered three times, specifically in 2014, 2017 and 2020. The 2020 NSFWS was developed and administered by The Ohio State University in collaboration with co-investigators and across 60 higher education institutions. The study utilized a combination of survey questions to gauge students' understanding of financial concepts and concerns. The survey leveraged a four-point Likert scale to help compare students' relative financial wellness and create composite scores. In using this well-designed measurement instrument over the span of six years, the National Student Financial Wellness Study investigated college student financial knowledge and behaviors in the areas of student loans, credit cards, financial behaviors, financial knowledge and education, and financial futures (Center for the Study of Student Life, 2020). This survey helps to guide the areas where higher education institutions and state and national policymakers can focus their energies when advocating for the financial well-being and literacy of this crucial demographic.

Institutional Policies and Practices to Improve Student Financial Literacy

Like the higher education institutions that collaborated to obtain student experiences through the NSFWS and create change in their institutions that benefit students, many other entities have advocated for interventions to remediate the widespread lack of financial literacy among young Americans, including low-income college students, because of data collected on the issue. At the federal level, the Financial Literacy and Education Commission was established under the Fair and Accurate Credit Transactions Act of 2003 to develop a national financial education website and a national strategy for financial education. It’s report, U.S. National Strategy for Financial Literacy 2020, identified techniques to improve and increase the financial literacy and education of Americans, and it conveys the federal government's roles, priorities, and structures for advancing financial education (Literacy, US Financial and Education Commission, 2020). The best practices identified by the U.S. National Strategy for Financial Literacy 2020 were:

1. Know the Individuals and Families to be Served. Financial education, information, and delivery methods must be tailored to individual circumstances and needs.

2. Provide Actionable, Relevant, and Timely Information. Financial information delivered in an actionable, relevant, and timely manner results in a greater likelihood of retention and positive action.

3. Improve Key Financial Skills. Financial literacy and education can be more effective when it helps develop skills, rather than merely transmitting knowledge of particular facts about financial products and services.

4. Build on Motivation. Effective financial literacy and education programs capitalize on people's motivations.

5. Make It Easy to Make Good Decisions and Follow Through. The environment or context can make it easier for people to carry out the steps required for a better outcome.

6. Raise Standards for Financial Educators. Financial education providers should demonstrate mastery of financial content and effective delivery skills and methods.

Specific to higher education and low-income college students, the Jack Kent Cooke Foundation (Coker & Glynn, 2017), a large scholarship-issuing entity that provides funding to highly talented students who have financial need, issued a report that highlights best practices for making college more affordable to low-income students. It identified three main areas that institutions can focus on to assist low-income students as they navigate how to finance college. The three areas are clarifying financial information (providing financial education), easing the financial burden (providing additional aid and low-cost books), and filling the gap (providing supplemental social services and aid). These three areas are expanded into eleven strategies created to empower students. The foundation explains that providing students with better information will help them make more informed choices, make going to college more affordable, and help students maximize the aid they receive" (Coker & Glynn, 2017, p.1). The area from the Jack Kent Cooke Foundation publication most connected to my research and financial coaching innovation is a section called clarifying financial information. In this area, five strategies are recommended to clarify financial information to students:

> Strategy 1: Clarify financial aid letters
>
> Financial aid award letters can be confusing and misleading. Colleges should clarify their financial aid letters by distinguishing loans from grants and scholarships, noting that loans must be paid back, and clearly stating net costs.
>
> Strategy 2: Provide students with a four-year estimate of the expected cost.
>
> Offering students an estimate of what their degree will cost can help students budget and plan for the future.
>
> Strategy 3: Establish clear policies regarding financial aid eligibility requirements
>
> Too often, students lose financial aid because of a lack of knowledge. Institutions should clarify semesters for renewal of aid and remind students (via text message, for example) of upcoming deadlines and renewal requirements.

Strategy 4: Establish more robust methods for estimating non-tuition costs

> One-third of colleges underestimate living expenses, and off-campus living estimates vary widely between schools in the same city. Low-income students whose schools underestimate their living expenses may find themselves without sufficient funding. Schools should draw on reliable data sources to estimate costs.

Strategy 5: Educate students about financial aid

> Students often have limited knowledge of financial aid. Schools should help students understand their aid before they sign off on their aid packages. Schools can do this by requiring students to meet with financial aid advisors, offering webinars, or providing videos.

The report found that students frequently lose financial aid because of a missed connection between institutional or governmental policies and student knowledge. The authors implored those institutions to explain semesters for aid renewal and directly remind students of deadlines. In essence, these strategies address the various elements of financial coaching and college financial literacy. The two abovementioned reports did not directly provide any evidence about how these strategies impact retention but did highlight the need to conduct research on this topic.

For low-income students, there exists a more urgent need for institutions to create policies and practices aimed at enhancing financial literacy. Changing from a free-to-attend k-12 model to the pay-as-you-go model can be more complex for this population.

These students often face unique financial challenges and limited resources, making it crucial for educational institutions to provide targeted programs like those listed above. Researchers have found that providing programs to grow student financial literacy in low-income communities helps promote college completion (Eitel & Martin, 2009). Yet overall, there is a lack of postsecondary institutional policies and practices that adequately serve low-income students (Kezar, 2010).

College Cost Financial Literacy

College cost financial literacy, as addressed in this research, pertains to college students and their comprehension of the various costs and resources involved in attending a higher education institution. The ability to understand what the various costs of college are, the resources available to pay for college, and how to access and leverage those resources are unique but essential ideas to navigate the university. The *College Pulse, Student Voice (2022)* study compared students' pre-college expectations of finances with reality. The top responses were "Tuition costs more than I expected" (52%), "Course materials cost more than I expected" (51%), "Housing and living expenses cost more than I expected" (49%), and "Fees cost more than I expected" (49%). A connected question about institutional support reveals that students wished for services that helped them navigate personal finances (58%), provided emergency aid (57%), and assisted with current and post-graduation personal finance education (54%). When asked about their student loan debt, only 22% of undergraduates who receive financial aid know the approximate monthly payment that they will owe after graduation (College Pulse, 2022). As these data suggest, most college students do not have a thorough understanding of their financial situation nor how to make informed decisions about how to pay for college.

Overall, few studies have analyzed the implications of financial literacy on college students. Britt et al. (2016) looked at financial anxiety, financial stress, and financial mastery issues. All levels of students were surveyed, from first-year to graduate students. The results of this study indicated that students with median student loan debt are more likely to experience financial stress than those with no student loan debt. Xiao et al. (2014) surveyed 2,098 full-time first-year students to study the relationship between financial knowledge and risky behavior. The study found that earlier subjective knowledge of financial literacy, an individual's beliefs about their own understanding of financial knowledge topics, reduced some risky paying and borrowing behaviors. However, the knowledge and behavior measured in these studies were about everyday costs, not college-specific costs. There is an opportunity for further research regarding financial literacy and the cost of college specifically.

Institutional Policies and Practices for College Cost Financial Literacy

Specific research regarding institutional policies and practices for college cost financial literacy is virtually nonexistent, but some research on student financial literacy is available. The Jack Kent Cooke Foundation and other scholars advocate for the importance of additional education on financial issues for all students, especially low-income students; the reality is that many students do not have access to such programs. As of April 2022, seven U.S. states require a general financial literacy course in order to graduate high school, and five others are in the process of adopting such a requirement (Povich, 2022). Where higher education is concerned, some colleges and universities offer general programs and events specific to paying for college, but participation is typically optional. Only 6% of undergraduates nationally indicate that they have attended a financial aid workshop offered by their campus (College Pulse, 2022).

There is a significant scarcity of college cost financial literacy programs within higher education institutions for all students. Despite the growing importance of financial education and the increasing financial challenges college students face, many institutions have yet to prioritize comprehensive and holistic financial literacy initiatives. This gap in support leaves all students potentially ill-equipped to navigate the complexities of college costs, budgeting, and financial planning, especially students from lower socio-economic backgrounds who could benefit the most from college cost financial literacy programs. Recognizing the critical need for financial literacy in today's higher education landscape, additional research is needed so higher education institutions can have the information they need to consider financial education programs to assist students who may already have economic challenges in financing their academic journeys.

Persistence

College student persistence is a multifaceted and well-studied theory within higher education. Persistence theory was addressed by Vincent Tinto (1975) and suggests that student persistence in college is affected by a combination of academic and social integration influences. He argues that students are more likely to persist depending on their level of self-efficacy, sense of belonging to their institution and academic communities, and perceived value of the curriculum (Tinto, 2017). In addition, Tinto clarified that when an institution addresses how, why, and if a student can be kept at the university, it is referred to as retention, but when the student is speaking of this action, it is called persistence (Tinto, 2017). More so, he explains that persistence is how students view themselves as being motivated to continue to degree completion.

Tinto's model emphasizes the impact of early intervention on persistence. Persistence can be impacted in the first year of college because students are adjusting to the heightened difficulties of studying at the university (Tinto, 2017). The theory emphasizes that for support systems to be effective, support must be provided early before student struggles negatively impact their motivation to persist and be constructed to increase student engagement. He encourages support to be offered as early as possible in the student college journey, starting before orientation when possible. He speculates that these early interventions with students will positively impact their persistence and are most important to low-income students. Closely connected is intent to persist. Namely, intent to persist is defined as students' communicated plan to continue their enrollment in higher education academic institutions (Beadlescomb, 2018).

Institutional Policies and Practices to Support Student Persistence

University policies and practices play a pivotal role in encouraging student persistence. To promote a conducive environment for degree completion, colleges implement various strategies. The strategy options are plentiful and include orientation, first-year experience courses, TRiO centers, multicultural student centers, peer mentors, residential college experience, academic advising, and coaching programs. Creating an inclusive and supportive campus culture helps students feel connected to the institution, reducing the likelihood of attrition. Educational institutions can enhance student persistence by actively developing and refining these policies and practices. In this research, I highlight three support areas that encourage student persistence: residential college experience, academic advising, and coaching.

Residential College Experience

The residential college experience is one that all four participants selected for their first year. Residential colleges have a history originating in European universities. In this type of institutional housing, students lived on campus while attending classes and participating in extracurricular activities with other students during their time in college (Taylor et al., 2019). This opportunity for on-campus living appeared in the United States post-World War II when veterans wanted to leverage the GI Bill to attend and live on campus. Living on campus has many benefits, including personal growth and forming a sense of belonging and community. Specifically, the residential college experience is a housing model where students live and take various classes together and have structured activities in their living space that focus on academics (Jessup-Anger, 2011; Taylor et al., 2019).

While living in a residential community is beneficial, there is a significant financial question to consider. For many students, living on campus can come with an increase in the cost of attendance and a debt burden (Jessup-Anger, 2011). At ASU, housing for engineering students is about $5,000 and requires an on-campus mandatory meal plan ranging from $1,740 to $3,180 per semester; comparatively, tuition per semester is about $6,500. Living on campus can easily double the cost of attendance for a student.

Advising

Academic advising is a crucial element of the higher education experience. It offers students support and guidance throughout their academic journey. Academic advising is an interactive process in which the advisor helps the student set and achieve academic goals, acquire relevant information and services, and make responsible decisions consistent with interests, goals, abilities, and degree requirements (Noel-Levitz, 1997). At the most superficial level of the advising practice, advisors help students clarify their academic goals, align their coursework with their interests, and navigate the complexities of degree requirements (Drake, 2011). However, a successful advising model goes beyond aiding students in course selection; it promotes a sense of connection and support between the university and the student, which is crucial for student persistence (Rozhenkova et al., 2022; Schwebel et al., 2012; Swecker et al., 2013). By establishing a robust advisor-student relationship, advisors can detect early warning signs of academic or personal challenges that might lead to attrition. Moreover, academic advisors can have frequent sessions with students that provide timely interventions, resources, and referrals to support services, thereby addressing issues and helping students. Through regular meetings and guidance, academic advisors not only contribute to academic success but also create a supportive environment that encourages students to persist.

Coaching

Coaching is a specialized tool that can be leveraged to support and guide individuals in a particular area. These coaches typically offer guidance, support, and motivation to individuals or groups to help them reach specific personal or professional goals (Carey et al., 2011). Coaching can be particularly valuable for people facing challenges or those looking to reach a particular goal. It provides a structured and personalized approach to help people maximize their potential. Coaches often work one-on-one with individuals and tailor their guidance to meet the specific needs and aspirations of each individual (Boyce et al., 2010; Brandt et al., 2018). A successful coaching model encompasses several key elements that are essential for guiding individuals toward personal and professional growth. Some of these elements include building trust and rapport and being able to identify realistic goals based on individual barriers (Boyce et al., 2010; Brandt et al., 2018; Carey et al., 2011).

One element of a successful coaching model includes goal setting. A popular and far-reaching framework for setting and achieving goals is SMART goals. The SMART goal technique was established in 1981 by George Doran. The technique centers around setting goals that are:

Specific – target a specific area for improvement;

Measurable – quantify or at least suggest an indicator of progress;

Assignable – specify who will do it;

Realistic – state what results can realistically be achieved, given available resources;

Time-related – specify when the result(s) can be achieved.

While Doran (1981) established these characteristics, others have made adjustments according to their needs. The most common is exchanging 'assignable' for 'attainable", which is the idea of whether or not the goal can be accomplished overall. This approach provides clarity and structure to goal-setting, making it more likely for individuals to succeed in reaching their goals (Bjerke & Renger, 2017; Weintraub et al., 2021).

Coaching often requires more than one session due to the complex and multifaceted nature of personal development and goal achievement. In a single session, a coach can provide initial insights and guidance, but true transformation and sustainable change typically demand ongoing support and collaboration. Multiple sessions allow individuals to delve deeper into their goals, challenges, and aspirations, fostering a more comprehensive understanding of their unique circumstances (Bettinger & Baker, 2014). Over time, coaches can help clients identify patterns, overcome obstacles, and refine strategies for success. Additionally, coaching is an evolving process, and as clients progress, new goals and challenges may emerge, necessitating ongoing sessions to adapt and recalibrate their strategies (Carey et al., 2011). Regular sessions provide the necessary accountability and motivation to keep individuals on track toward realizing their full potential and achieving their desired life outcomes.

College Cost Financial Coaching

In this research, college cost financial coaching refers to focused activities and one-on-one sessions that center around students' onboarding to the costs and resources associated with college attendance. While I was not able to locate any literature on college cost financial coaching, there is literature on financial coaching in general.

The area of financial coaching is a relatively new area of research, but there has been a growing body of literature. Overall, financial coaching is described as an approach to financial education where clients and coaches, through one-on-one sessions, set goals and create specific plans to meet and accomplish the goals (Theodos et al., 2018; Modestino et al., 2019). Traditionally, the sessions occur over time and include planned monitoring for accountability, assessment of plan progress, and problem-solving guidance by the coach (Collins & O'Rourke, 2012; Theodos et al., 2018). Overall, studies have found mixed results on the impact of financial coaching. Theodos et al. (2018) cite results from non-experimental studies that show that financial literacy can improve financial behavior; however, experimental studies have varied or conflicting results. Modestino et al. (2019) echo the inconsistent results of previous financial coaching programs, especially those that involve youth. They explain that the effects of the programs on the youth, if any, are small. Notably, when investigating common elements that can positively impact financial coaching uptake and outcomes, two elements are identified. These two elements are self-selection and having a preexistent goal before application to a coaching program. These two factors yielded more positive outcomes in financial coaching (Collins & O'Rourke, 2012; Modestino et al., 2019; Theodos et al., 2018).

While literature is sparse on college cost financial coaching, there is some research on general financial counseling that is offered to students at universities. Notably, although financial aid offices are common departments in higher education institutions, financial counseling centers are not. Recently, Choi et al. (2016) reported that as of 2011, there were only seven college-affiliated financial counseling centers in the United States. For many students, college is the first time they are accountable for planning their expenditures, and some have struggled to make ends meet (Choi et al., 2016). Financial counseling may help mitigate this. Research shows that students will engage with financial counseling if available (Webster et al., 2021).

Universities often have general financial literacy programs that help students with overarching topics in finances like building credit, saving and checking accounts, and budgeting, but very few have a college financial coaching model that is built to address college-specific financial issues. This type of support is rare both in practice and in literature. Only one institution, among the top 10 public universities in 2022, reports offering a financial wellness center that provides personalized support by university representatives and student staff ("Financial Wellness," 2022).

Academic Advisors as Coaches

Advising and coaching are parallel professions, but there are factors that impact an advisor's ability to act as a coach. Advisors, coaches, and mentors use overlapping tools and skill sets, but no single one can meet every student's need (Vaccaro & Camba-Kelsay, 2018). A coach, unlike an advisor, does not have the due diligence to tell students what steps to follow for a particular situation but instead supports them by guiding them through the steps to figuring things out (Bettinger & Baker, 2014; "An interdisciplinary culture of advising, coaching, and mentoring at duke," 2023). Also, coaching can require organizational support that provides incentives and time for coaching to occur (Carey et al., 2011).

Theoretical Perspective: Model of Institutional Action for Student Success

Building on the research and ideas summarized above, where the institution uses its resources to provide student-centered services to increase student success and retention, I employed Tinto's and Pusser's (2016) *Model of Institutional Action (MIA) for Student Success*. The MIA framework has been used in other research endeavors that focus on investigating how the institution can guide student persistence and success by focusing on institutional expectations, support, feedback, and involvement. Johnson (2020) leveraged the model when looking at first-generation, conditionally-admitted students and how their participation in a college access program impacted their persistence at the university. Similarly, Ferrell and DeCrane (2016) conducted research with nursing students and investigated how they perceived their academic success in their program. The researchers wanted to see what the college could have done to make their education more meaningful and/or less stressful, in essence, understanding if the institution had created a supportive environment.

The MIA is based on Vincent Tinto's foundational work from 1975 and expanded in 1993, which conceptualizes factors that may cause student departure prior to degree completion. Tinto adapted Durkheim's theory of suicide (lack of integration into society) and from the area of economics of education (cost-benefit of schooling) to develop his theory about student departure (Tinto, 1998). Tinto described these two areas as a descriptive model that identifies the circumstances where varying types of dropouts can happen. In their foundational research, *Dropout from Higher Education*: *A Theoretical Synthesis of Recent Research,* Tinto and Cullen (1973) recognize that finances are a reason that some students drop out, noting that a family's socioeconomic status is inversely linked to dropping out. In addition, children from lower-status families present higher dropout rates than children from higher-status families.

Tinto and Pusser (2006) argue that Tinto's initial work, as well as other current retention theories, were lackluster in providing institutional leadership with sufficient information to create effective policies and programs designed to impact the persistence of their student populations. Conversely, the MIA model focuses on creating change through institutional action, where the organization creates an expectational climate through its institutional commitment and leadership. In turn, this can positively impact a student's sense of belonging in the campus environment that fosters a commitment to persist.

The framework of this study is complex and multi-layered. The model's core is derived from the idea that universities must create the right environment to promote student success. For this purpose, the researchers identified five total conditions to promote student success. Below is a summary of each condition and how it pertains to low-income students:

- **Institutional commitment:** The readiness of the institution to invest resources, incentives, and rewards necessary to enhance student success. For low-income students, an institution's willingness to invest resources, incentives and rewards is key to improve student success.

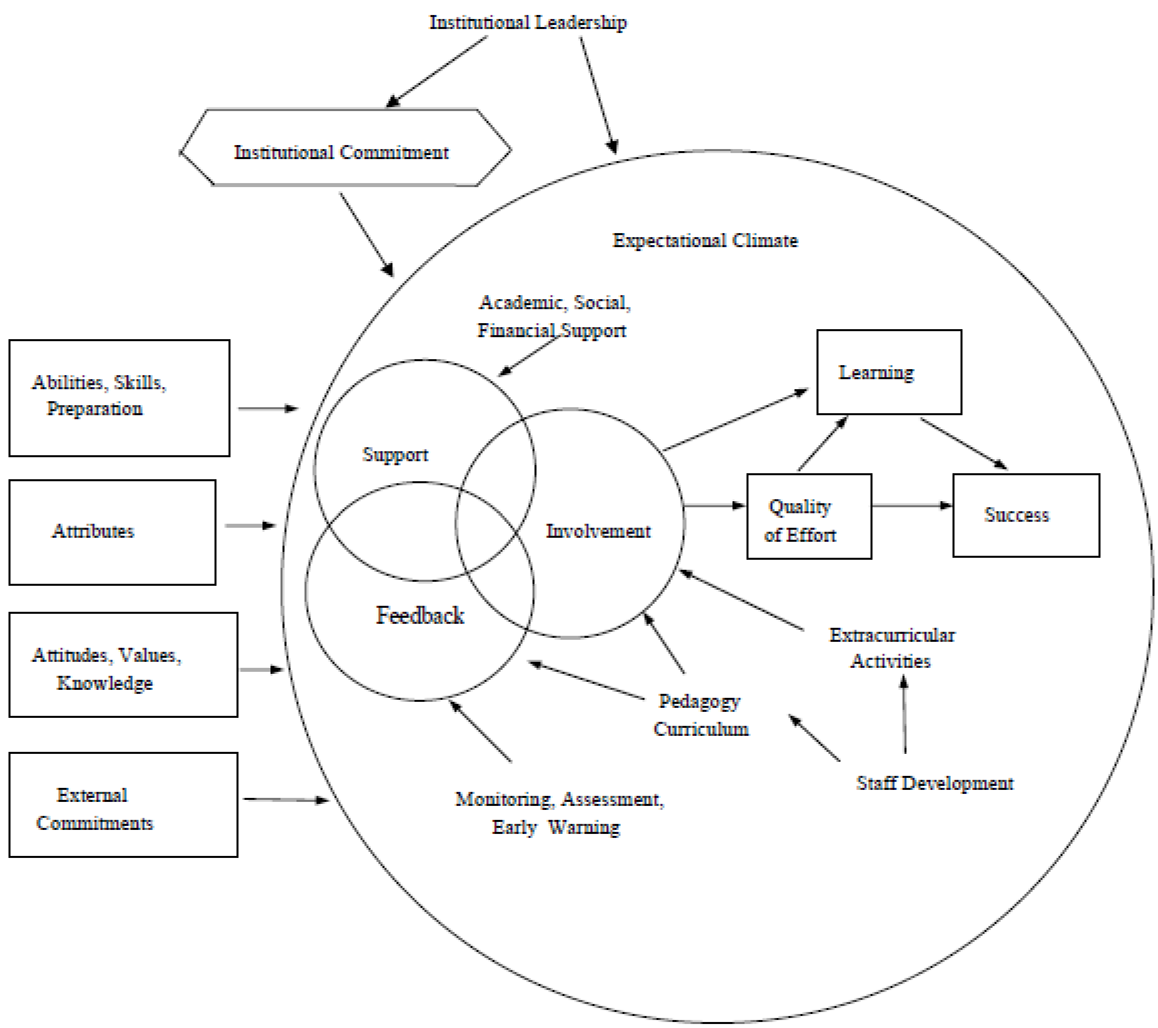
- **Institutional expectational climate**: Also referred to as campus climate, this condition addresses the expectations that the institution holds for student, faculty, and staff conduct. The expectational climate for individual action influences student success by revealing how expectations impact their response to each other and competing demands upon their time and resources. Campus climate and micro-aggressions may impact the sense of belonging and, thus, the persistence of low-income and minoritized students.
- **Institutional support**: Specifically, this refers to the support in the areas of academics, social, and financial. Academic support includes services such as tutoring, study groups, and developmental courses. Social support encompasses services such as counseling, ethnic student centers, and mentoring, while financial support refers to assistance to offset the cost of education. For low-income students, having a robust support system, including access to aid, is key for student success. In addition, if low-income students need additional academic support due to any level of under-preparedness, providing them with additional programs or opportunities to enhance learning may increase persistence.
- **Institutional feedback**: This pertains to all stakeholders, including faculty, staff, and students, in receiving feedback about their performance. Non-assessment feedback enables students and faculty to adjust their learning and teaching methods to promote success. Embedded in this condition is the use of early warning systems. Although there may be academic warning systems, having an early warning system for low-income students who may face financial obstacles may assist in increasing persistence.

- **Institutional involvement**: This area focuses on social and academic engagement and emphasizes building educational communities in the classroom. Students that engage more with other students and faculty are more likely to persist. Low-income students who participate in active learning on a subject of interest may strengthen their connection to the institution.

The complete model includes broader areas such as quality of effort and pedagogy curriculum that were not used in this study due to it not being areas addressed in the intervention. Additionally, because the model specifies that the attributes a student brings to the institution are outside of its control, these elements were also not used. Figure 1 graphically shows the original model:

Figure 1

Elements of a preliminary model of institutional action.



Note: Replicated from *Moving from Theory to Action: Building a Model of Institutional Action for Student Success* (p. 11), by V. Tinto and B. Pusser, 2006, Washington, DC: National Postsecondary Education Cooperative. Copyright 2006 by National Postsecondary Education Cooperative.

The study drew from the aforementioned elements outlined in the MIA theoretical framework along with the best practices in the Jack Kent Cooke and the U.S. National

Strategy for Financial Literacy 2020 reports to design, implement, and study an intervention involving effective and student-centered activities to promote financial literacy. My intervention is described further in the methods chapter.

The MIA and Academic Advising

I chose the Model of Institutional Action (MIA) to inform my intervention approach and design because it focuses on the institutional capacity to create student success (Tinto & Pusser, 2006). The model investigates the role of the institution and its representatives (i.e., faculty and staff) as the creators of the institutional environment. Thus, it is the institution and its representatives that serve as change-makers and carry a large part of the responsibility for student success instead of landing on the students and their personal traits. The MIA specifically highlights advising as a significant part of the university support system that can contribute to student success and persistence. Johnson (2020) found that students felt that active and regular academic advising contributed to their feeling that they were successfully equipped with essential knowledge, skills, and professional temperament to begin their second year of college. This leveraging of the MIA is in line with the work I conducted in this research as well.

Conclusion

In this chapter, I provided a brief history of the evolution of American college funding and costs, shedding light on the transformative shifts in higher education financing and their implications for students. Additionally, I presented research on college cost financial literacy that students require to navigate the higher education system and how colleges and universities can improve students' financial literacy via targeted coaching. I then explained the role of institutional policies and practices that can improve low-income students' financial literacy and the specialized area of college cost financial literacy through coaching by advisors. I followed up by reviewing persistence and intent to persist by college students. Finally, I reviewed the applicability of the theoretical concept of the Model of Institutional Action for Student Success that guides this study.

Through this multifaceted examination, I highlighted the gap in research and overall programs centered around the complex landscape of college cost financial literacy in American higher education. In particular, the crucial time between being a high school student and entering college is when many financial decisions are made, which subsequently affect retention and persistence to degree completion. However, few studies exist focused on this critical period of time. In completing my investigation, I hope to add foundational data on this topic. The next chapter outlines the methods I used for my research.

CHAPTER 3

METHODOLOGY

Introduction

This study aimed to understand how participating in a financial coaching workshop influences the level of knowledge about the college costs held by first-year low-income, campus-housed students and their intent to register for their second semester. Chapter 1 provided more information about the research problem and context. In Chapter 2, I explained the theoretical framework I used for this research: the Model of Institutional Action by Tinto and Pusser (2006), which focuses on creating change within institutions via targeted activities. In this chapter, I introduce the action research design of my study and explain how I employed a sequential mixed-methods research approach to address these research questions:

Research Questions

RQ1 How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university?

RQ2: After participating in early college financial coaching, how much outstanding debt do first-year low-income university-housed students assume as of the commencement of the fall semester?

RQ3: How does participating in early college financial coaching impact how first-year low-income students describe their intent to persist?

Research Design – Action Research

Action research was the paradigm that oriented the design for this study. This type of research is a blend of pragmatic matters and theory. It is a reflective practice that uses a cyclical process of evaluation and reflexiveness during various phases of the research (Ivankova, 2014; Mertler, 2020). Action research differs from other research types because investigators use it within their practice area. Researchers do not use it in a controlled environment but within their living and dynamic environments (Mertler, 2020). The researchers using the action research model utilize theory as a foundation to investigate and improve their educational practice. The basic outline for these types of investigations includes identifying an area of focus, collecting data, analyzing and interpreting data, and developing a plan of action (Mills, 2011, as cited by Mertler, 2020). In addition, action research is cyclical by nature, and its process includes looking at the study and systematically continuing the research through additional attempts in hopes of constant improvement of one's practice. Previous research cycles informed this intervention, as is customary with action research.

Mixed Methods

This study utilized a mixed methods approach. Creswell and Plano Clark (2018) define the approach of exploratory sequential mixed methods as combining qualitative and quantitative data collection and analysis in a sequence of phases. To examine the impact of financial coaching on students' knowledge about college costs and their likelihood to persist, I collected quantitative data followed by qualitative data. The quantitative method was descriptive and comparative, analyzing data collected from pre- and post-workshop surveys. The surveys focused on collecting information from study participants about their knowledge of the overall cost of attending the university and their intention to register for the next semester. The survey was administered directly before the first financial coaching session and then again after the last session. After administering the final survey, I collected qualitative data using one-on-one interviews. The interview questions were formulated as open-ended to encourage the student to provide their personal narratives and experiences with the coaching (Butin, 2010).

Setting and Participants

The research was conducted within the flagship department of FSE, the School of Computing and Augmented Intelligence (SCAI) at Arizona State University. SCAI houses six majors: Computer Science, Computer Systems, Industrial Engineering, Engineering Management, Informatics, and Software Engineering. It consistently represents about 40% of the incoming class for the entire engineering school.

The university strongly focuses on first-year student retention and mandates departments to be alert in their retention. Because of this, SCAI first-year students are now served by a specialized advising team. The team was formed four years ago by allowing the advisors to self-select their specialties. The first-year team (FYT) focuses on in-classroom teaching of advising topics and traditional in-office advising. The creation of the FYT was an effort to allow advisors to form close connections with students and provide additional support to first-year students as they transitioned to the university. A dedicated team of five advisors is assigned to first-year engineering students through their first-year seminar classes. As the department's retention professional, I support my FYT colleagues by assisting students with complicated needs, including students with financial holds. This is one way that I have gained insight into the problem of practice that led to this study.

The participants in this research responded to a general call for study participants sent by the assistant director of the advising department to all incoming first-year students in the Fall 2023 semester who were in state, HVHN, and living on campus, approximately 175 students. Specifically, the target participant sample met the following criteria: 1) traditionally aged (18 or 19 years), 2) incoming first-year in-state students, 3) identified by ASU as having high or very high financial needs, 4) planned to live on campus for the 2023-2024 academic year. The recruitment letter for participants was sent to eligible students over eight weeks. The letter explained that students would be entered in a drawing for $50 Amazon gift cards, two per session, raffled at the end of the coaching session, and that all participants invited to participate in individual interviews would be provided an additional Amazon gift card for their involvement. Unfortunately, although I wanted to recruit 40 participants, only four (4) students responded. Of these, all students received two $50 gift cards, one at the end of the coaching sessions and one after the one-on-one interview.

Table 10 provides the demographics of the participants. Four (4) participants were recruited, three male and one female. Two lived in the Phoenix metropolitan area, and two from other Arizona cities. All four of the participants participated in the entire intervention.

Table 10

Participant Demographic Data

Participant Alias	Gender	Ethnicity	Highest Level of Parent Education	Employment Status
1001P	Male	Hispanic	Less than high school	Yes, Part-Time
1002P	Male	African American	Bachelor's degree	Not employed
1003P	Male	Asian	High school diploma or the equivalent (e.g., GED)	Not employed
1004P	Female	Hispanic	Less than high school	Not employed

Intervention

The intervention for this action research was centered around making an early connection with incoming first-year students to provide them with critical information about how financial issues may create a potential barrier to staying enrolled and finishing their degree. In my role, I have noted that students come to realize that they cannot afford the entire cost of college until it is too late; they have a high balance they cannot repay and cannot persist because they receive an enrollment hold until they pay down their past due balance. Therefore, implementing an intervention early – even before students officially begin their first semester of classes – is not only recommended during the transition to college (Gerrans, 2021; Hagadorn, 2017; Supiano, 2008; Cummins et al., 2009) but necessary due to institutional practices and timelines.

The coaching program that I developed was called Smart Start. The goal of the program was to review essential college cost information with participants and provide a personalized review of their specific financial situations. Another program goal was to aid students in creating a budget reflective of their own financial resources and then financial goals to address any concerns they identified through coaching. Prior to the implementation of the coaching program, I provided an overview of the model and tools to the Associate Vice President of Academic Enterprise Enrollment and Financial Aid and Scholarship Services at ASU for accuracy and feedback. She expressed that the program was constructed accurately and efficiently. After this review, I finalized the program and its components.

Smart Start consisted of three primary content elements: a college cost financial literacy presentation, a budgeting exercise, and a financial goal-setting activity. All coaching meetings were conducted as one-on-one sessions. The first coaching session introduced participants to each of these elements. I began with the *Know It Before You Owe It: A College Cost and Resources* presentation, which reviewed important topics within college cost financial literacy including the overall cost of college, information on federal and institutional aid, additional possible sources of funding, and university policies for imposing registration holds on student accounts that have a balance larger than $3,000 (see Appendix E for full presentation content). I also explained mandatory and flexible college costs and demonstrated how college costs can be adjusted.

Next, I provided participants with the 1st Year of College Budget Worksheet, which auto-calulated the total costs and funding for college costs when students built their budget (see Appendix C for the budgeting worksheet template). We walked through filling in each listed item to reflect their personal costs - set costs like tuition and fees as well as flexible costs like meal plans and transportation - and funding resources. I asked students to leverage the information about costs in the presentation as well as actual award information from their student accounts. Students completed each step with my guidance and at their own pace. Once the participant completed the last section in the budget sheet, we paused to reflect on the outcome. This last section identified any gap between their overall cost to attend college and the resources to pay for that cost.

Building on the results from the budgeting sheet, I introduced the last component of the program, setting college financial SMART goals. The SMART goals included identifying specific, measurable, achievable, realistic, and timely financial goals outlined in the PowerPoint template (Microsoft® PowerPoint® for Microsoft 365, Version 2309, n.d.). After reviewing the purpose of SMART goals, students identified three goals based on any item of financial concerns that they recognized in the budgeting activity. Finally, I concluded the initial session with a review of the next steps of the coaching program and setting the time for the next session.

The second and third sessions began with a quick personal check-in with the participants to investigate how their weeks went. Next, I asked them to open their budget from the previous week so we could review it and make any needed updates. The last element of the follow-up coaching session was to review and update students' SMART goals.

In the last session, I provided the participants with an additional resource, a handout of financial resources. This handout provided additional financial resource information from around the campus and community that may help them with college costs (see Appendix D). Finally, I asked students if there were any last questions on the topic of college costs before completing the last coaching session.

Timeline and Procedures

The intervention and data collection occurred from May 2023 to June 2023. First, I requested that the Assistant Director of Advising identify and send the recruitment letter to the incoming first-year students who met the criteria mentioned. The information had to be sent out via email a total of four times before the four participants were identified. Once the participants confirmed their consent, I scheduled the first meeting to participate within the week of their confirmation. Each consecutive coaching session occurred about one week apart and was scheduled before concluding the check-in.

All sessions were conducted via Zoom and set for an hour in duration. I sent a meeting invitation to the participant’s personal email with the Zoom link immediately after setting up the session. I also sent a reminder email to students twenty-four hours before the session. In the initial session, I provided participants with a general overview of the coaching program, its parameters, and how I would coordinate the next sessions at the end of the current one.

Table 11 below outlines each intervention session's specific timeframe and activities and highlights important university dates to students.

Table 11

Start Smart College Financial Coaching Timeline

Date and Session	Activity	Important Dates Reviewed
May Session 1	• Pre-Survey • Coaching program overview • Know It Before You Owe It presentation • 1st Year College Budget creation • Financial SMART goals overview and creation	• Housing application due May 1st.
May Session 2	• Smart Start check-in • 30 minutes - 1hour • Review/update of 1st Year College Budget • Review/update SMART goals	• Application cancellations May 31st
June Session 3	• Smart Start check-in • 30 minutes - 1hour • Review/update of 1st Year College Budget • Review/update SMART goals Resource handout review Post- Survey	• Pell Grant book deferments are available on August 2nd • Meal Plan changes Aug. 23
June Session 4	• Interviews	• None

Instruments and Data Collection

The quantitative data for this mixed methods study were collected from a survey instrument that included six questions adapted from the 2010 Ohio Student Financial Wellness Survey (OSFWS). The OSFWS was developed and administered by Ohio State University across 60 higher education institutions to gather information on students' financial attitudes, practices, and knowledge. This survey instrument has been used in many other research endeavors, including research investigating college student financial stress, help-seeking behavior, on-time graduation rates, and college debt (Lim et al., 2014; Letkiewicz et al., 2014; Fox et al., 2017). Similar to my work, these research investigations examined college students' financial issues. This is why I chose this instrument for my intervention. Furthermore, I developed 16 additional items to collect quantitative data on the research questions. To measure persistence, I created an item asking about students' intent to persist at ASU the following semester. Finally, my survey included demographic items to describe participants' backgrounds. The full survey developed for this inquiry can be found in Appendix A. Unfortunately, due to the small number of responses, I could not calculate the instrument reliability. Scholars typically recommend a minimum sample size of between 30 and 100 cases in order to establish reliability with a Cronbach's coefficient alpha test (Kennedy, 2022).

The same instrument was administered as the pre-and post-surveys. The first survey was provided at the beginning of the first coaching session and was completed by all four participants. The second survey was administered as the closing activity at the end of the last coaching session and was completed by all four participants. Another source of quantitative data, which I needed to address Research Question Two, were participants' official university records. I captured each participant's actual balance owed to the university by accessing their student record in August 2023.

In addition to the surveys, all four participants agreed to take part in an interview to share their perspectives and thoughts. The interview occurred a week after the intervention was completed. I used a specific protocol for the one-on-one interviews (see Appendix B). The interviews were semi-structured and comprised of ten questions. They allowed the interview to flow naturally based on the interviewee's responses to ascertain their experiences with the workshops and how they believe participating impacted their knowledge about college and their chances of staying enrolled.

In addition, embedded in the pre- and post-surveys were a set of open-ended questions. These questions were included to collect additional data points in the students' voices. Lastly, after each coaching session, I took field notes on the conversations and questions posed by the participants. These notes functioned as additional points to capture the students' understanding of college cost financial literacy and overall engagement with the intervention. The form measured 4-5 areas and included a summative assessment and session field note area. The rubric items and notes allowed me an opportunity to better collect my reflections on the students' progress during the intervention. These notes and the rubric results are part of the qualitative data.

The data were collected utilizing different methods and tools to increase the validity of my study and its findings. Triangulating the data in this manner increases the trustworthiness of inferences identified from the data collected (Butin, 2010; Freeman et al., 2007). This assisted me in finding connections between the outcomes of the two surveys and the interview results. Together, the quantitative and qualitative results are used in a grounded interpretive approach for analysis.

Data Analyses

I analyzed a combination of qualitative and quantitative data to address each of the three research questions, which were:

RQ1 How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university?

RQ2: After participating in early college financial coaching, how much outstanding debt do first-year low-income university-housed students assume as of the commencement of the fall semester?

RQ3: How does participating in early college financial coaching impact how first-year low-income students describe their intent to persist?

Quantitative Data Analysis

To begin the analysis, I transferred the results from the pre- and post-intervention survey data into one single Microsoft Excel spreadsheet on separate tabs. I then combined the quantitative data sets into one tab where both pre- and post-data were arranged for each participant. Individual data points for each participant were recorded under a unique identifier I constructed. Finally, I created a codebook in preparation for the SPSS 28 analysis. The qualitative data results from the surveys were saved in the Excel file to use in the qualitative analysis.

Utilizing SPSS, I ran a paired sample t-test to calculate and compare the means for the pre- and post-survey responses for each participant. Next, I manually calculated the change in the mean by subtracting the post-intervention survey mean from the pre-intervention survey mean for each variable (Δ_{M2-M1}).

Qualitative Data Analysis

I arranged the interview transcriptions and qualitative question responses from the pre- and post-surveys into separate Word documents to begin the qualitative data analysis. I then analyzed this data using HyperResearch 4.5.4 software (Researchware, 2022). First, I utilized initial coding on the data. Initial coding is an open-ended approach that divides qualitative data into distinct parts, closely examining and contrasting them for likenesses and differences (Saldaña, 2021). After the transcripts were evaluated and analyzed, I ran a frequency report to help identify the codes in the interviews. Next, I noted the number of occurrences of each code and used this to categorize the initial codes in preparation for the second coding cycle. Lastly, I leveraged focused coding to develop themes and conceptualize the data. Additionally, I used the data from each session's College Cost Coaching Rubric Summative Assessment and Session Notes as field notes to reflect on observations, including my personal and subjective notes and interpretations of the actions encountered (Saldaña, 2021), to inform my coding.

Role of the Researcher

In 2012, I began my career as an academic advisor at ASU, a large four-year institution with one of the largest engineering schools in the nation. In the progression of my career, I moved from an entry-level advisor to a senior advisor and, most recently, to the Retention Coordinator Senior. At each phase of my career, my understanding of students' experiences and concerns has grown in depth.

As my department's Retention Coordinator Senior, my focus split into two areas: assisting individual students through their college years and looking at students as an entire cohort of incoming first-year students. Although I had the opportunity to get to know students and their struggles and triumphs individually through advising interactions, as a retention professional, I was able to look at shared issues of students in our school. There are a variety of reasons that students drop out of college: some reasons are unforeseeable, including medical and personal issues, but other issues may be avoidable. Such an issue is the almost immediate financial registration hold caused by the balance owed to the university from some students' fall tuition, fees, room, and board. This is how my Problem of Practice was identified. I knew that students often faced financial issues while pursuing their college endeavors; this issue would be identified in advising appointments with students of all levels. Yet, as a retention professional, I am responsible for investigating the reasons why our first-year students stop attending school and creating initiatives to combat student dropout.

This is the core of my beliefs and purpose as an advisor: to help students reach their academic goals and not be a reason they do not succeed. Essentially, they should be a guide and resource, not a barrier to their goals. I do this by walking alongside students and being a teacher and student concurrently with them on this academic road. In addition, it is important to be clear about the perspectives and experiences of this researcher. Because my research is about low-income university-housed students, it is essential to note that I too, attended the same university and was a low-income university-housed student. The awareness that I come from a similar background is important to understand any possible biases that could be present in the delivery of this study. As a first-generation student at the university and in the US, I had little financial coaching from my parents or the institution as I engaged in higher education. I have often compared my own experience trying to navigate the costs of attending college to that of my students, yet I consider myself lucky to have had a different experience. I was able to live on campus during my undergraduate years at Arizona State University by leveraging financial aid funds and working in residential housing as a community assistant after my first year. This position provided housing as part of my benefits. I also remember registering for classes and selecting my residential hall in my first year. Both tasks were easy and flexible processes. After selecting my courses, I was able to select a hall to live in that transitional year. I chose to live in a hall that was the most economical option. Now, students do not generally have this option, they must live in major specific residential communities. Engineering students must live in either the engineering or honors halls if they are also in the honors college. These are some of the most expensive residential communities on campus. In addition, when I lived on campus, I was not mandated to purchase a meal plan like today's first-year students. I was able to live off ramen and quesadillas to make ends meet instead of a $3,000 meal plan each semester. Overall, it seemed like we had more choices than today’s first-year students. I was able to continue each semester because of the flexibility in choices and resources I took advantage of, which helped offset my costs.

CHAPTER 4

DATA ANALYSIS AND RESULTS

This study investigated how college costs and financial coaching participation impacted first-year low-income university-housed students in the School of Computing and Augmented Intelligence (SCAI) at Arizona State University (ASU). In this chapter, I present information about the data analyses and results subsequently retrieved from the collected data. This data is leveraged to address my three research questions.

RQ1 How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university?

RQ2: After participating in early college financial coaching, how much outstanding debt do first-year low-income university-housed students assume as of the commencement of the fall semester?

RQ3: How does participating in early college financial coaching impact how first-year low-income students describe their intent to persist?

Research Question One Results

The first research question focuses on the coaching program's impact on participants' understanding of the costs of attending the university. My discussion of the results begins with the quantitative findings from the pre-and post-surveys, followed by a synthesis of the qualitative data collected from interviews, open-ended survey items, and my field notes. Within this analysis, descriptive statistics provide a general summary of the participants' responses and lead to findings emerging from the data.

Quantitative Results

To determine the coaching program's effect on students' understanding of the costs associated with enrolling in higher education, I examined participants' responses to three sets of survey items. The first two capture whether students were offered nine types of aid and whether they planned to use the different forms of aid. The final group is a series of Likert-scaled responses that measure participants' self-reported financial literacy. For each set of items, I compared participants' responses before (i.e., pre-survey) and after (i.e., post-survey) participating in the financial coaching workshop.

Knowledge about Financial Aid Offers

Table 12 summarizes participants' responses to whether they were *offered* different types of financial aid but chose not to use it. Each item had three response options: yes, no, and I don't know. The table includes the frequency of responses for the pre-survey and post-survey, the change in overall means (Δ_{M2-M1}), and participants' changes in response from before participating in financial coaching to after.

For the Pell Grant, Federal Parent Plus Loan, Federal Supplemental Educational Opportunity Grant, federal work study, private scholarships, and ASU grant or scholarships, there was no change in means, which indicates students' plans to use these types of financial aid were not affected by participating in the Smart Start program. In two areas, unsubsidized loans (Δ = -0.33) and private loans (Δ = -0.17), the average score decreased from pre to post. This indicates that students report being less likely to be offered and not plan to use these types of financial aid after participating in the Smart Start program. The only form of aid where participants were more likely to report being offered and not planning to use after completing Smart Start was subsidized loans (Δ = 0.25). Overall, the changes in individual item means are not substantial, but this is not surprising given that the response scale for calculating the averages was binary and the number of participants was so small.

However, looking at the individual changes in the "I don't know" responses is especially important to highlight, as RQ1 pertains to participants' understanding of and knowledge about college costs. The column labeled "change in response" in Table 11, shows the changes in response of each individual participant. While the overall means do not change substantially, looking at the pre- and post-survey responses for the same variable reveals the changes in individual decisions. The type of financial aid that participants decided not to accept to apply toward their expenses was subsidized loans. From the population, two participants selected "I don't know" in the pre-survey, however, once they completed Smart Start program, one participant chose not to use the offered aid, and the other decided to use it. Other changes to the response "I don't know" were made in regard to the unsubsidized loans. One participant who originally decided that they would decline this type of loan marked that they were unsure after the intervention. Another participant was unsure if they would decline this aid and decided to not decline it after all, and the last participant was not sure if they would decline the unsubsidized loan and reported that they decided to decline it after all. Participants selected “I don’t know” twelve times in the pre-survey but only four in the post-survey. This points to students becoming more decisive post-intervention.

Table 12

Pre- and Post-Survey Results for Offered Financial Aid Types

Were you **offered** any of the following types of financial aid to pay for your ASU tuition, fees, or housing but chose not to use it? (Yes, No, I don’t know)

Types of Aid	Pre-Survey	Post Survey	Change in Response[1]	Change in Mean[2]
	Y N I	*Y N I*	Pre to Post	
Pell Grant	1 3 0	1 3 0	N-N, N-N, Y-Y, N-N	0.00
Subsidized Loans	2 0 2	3 1 0	Y-Y, **I-N**, **I-Y,** Y-Y	0.25
Unsubsidized Loans	2 0 2	2 1 1	**Y-I**, **I-N**, **I-Y**, Y-Y	-0.33
Federal Work-Study	0 2 2	0 3 1	N-N, N-N, **I-N**, **I-Y**	0.00
Federal Supplemental Educational Opportunity Grant	0 2 2	0 3 1	N-N, **I-N**, I-I, N-N	0.00
Federal Parent PLUS Loans	2 0 2	3 0 1	I-I, Y-Y, **I-Y,** Y-Y	0.00
Private Loans	2 1 1	2 2 0	**I-N**, Y-Y, N-N, Y-Y	-0.17
ASU grant or scholarship	1 3 0	1 3 0	N-N, N-N, Y-Y, N-N	0.00
Private Scholarship	0 3 1	0 4 0	**I-N**, **I-N**, **I-N**, **Y-N**	0.00

[1] The Change in Response column captures each of the four participants' responses to the pre-intervention and post-intervention surveys. Y represents a response of “Yes,” “N” represents a response of “No,” and “I” represents a response of “I don’t know.” For example, “Y-Y” means that a participant selected Yes on the pre-survey and Yes on the post-survey.

[2] The Change in Mean column captures the overall average change from pre- to post- for the four respondents. When calculating the means, I coded 0=No and 1=Yes. Responses of “I don’t know” were not included in the mean calculations.

A negative result indicates that the overall mean went down (from Yes to No) after the coaching program, and a positive result indicates that the overall mean went up (from No to Yes) after the coaching program.

Knowledge about Financial Aid Use

Table 13 shows participants' responses to the question, "Are you *using* any of the following types of financial aid to pay for any part of your ASU tuition, fees, or housing expenses?" The change in the mean scores represents how the average responses (i.e., yes or no) shifted from the pre-survey to the post-survey for each type of aid. For the Pell Grant, Federal Parent Plus Loan, private loans, and ASU grant or scholarships, there was no change in means, which indicates students' plans to use these types of financial aid were not affected by participating in the Smart Start program. The average score decreased in three areas, Federal Subsidized Loans ($\Delta = -0.50$), Federal Unsubsidized Loans ($\Delta = -0.67$), and Federal Work Study ($\Delta = -0.75$), from pre to post. However, there was an increase in means for private scholarships ($\Delta = 0.33$) and the Federal Supplemental Educational Opportunity Grant ($\Delta = 0.75$). Subsequently, the changes in individual item means are not substantial due to the small number of participants which created a binary response scale for calculating the averages.

Improving students' knowledge about different forms of aid was a key goal of the Smart Start program. There was no change in "I don't know" responses for Pell grants, PLUS loans, and university scholarships from pre- to post. However, for the remaining six types of aid, students were less likely to select "I don't know" after receiving financial literacy coaching, indicating the program improved their clarity on how they would pay for college. Where subsidized loans are concerned, for example, two students reported that they were unsure if they would use this form of aid in the pre-survey. After receiving financial coaching, they answered in the post-survey that they would use it after all. Overall, in the pre-survey, there were thirteen instances of students answering, “I don’t know;” in the post-test, that response was only chosen three times.

Table 13

Pre- and Post-Survey Results for Use of Financial Aid Types

Types of Aid	Pre			Post			Change in Response[1]	Change in Mean[2]
	Y	*N*	*I*	*Y*	*N*	*I*	Pre to Post	
Pell Grant	4	0	0	4	0	0	Y-Y, Y-Y, Y-Y, Y-Y	0.00
Subsidized Loans	2	0	2	2	2	0	N-N, **I-Y**, **I-Y**, N-N	-0.50
Unsubsidized Loans	2	0	2	1	2	1	N-N, **I-Y**, **I-I**, N-N	-0.67
Federal Work-Study	2	0	2	1	3	0	Y-N, Y-N, **I-N**, Y-Y	-0.75
Federal Supplemental Educational Opportunity Grant	0	0	4	3	1	0	**I-Y**, **I-N**, **I-Y**, **I-Y**	0.75
Federal Parent PLUS Loans	0	3	1	0	3	1	N-N, N-N, I-I, N-N	0.00
Private Loans	0	3	1	0	4	0	N-N, N-N, **I-N,** N-N	0.00
ASU grant or scholarship	4	0	0	4	0	0	Y-Y, Y-Y, Y-Y, Y-Y	0.00
Private Scholarship	0	3	1	1	2	1	N-N**, I-Y**, **N-I,** N-N	0.33

Table 14 summarizes results for students’ knowledge about different dimensions of college costs, measured on a four-point Likert scale (i.e., excellent, good, fair, poor). Overall, there was an increase in how students rated their knowledge of college costs and financial literacy topics after participating in the workshop.

Before the intervention, participants reported relatively high knowledge about how to find affordable housing on campus (M=3.00). They also had a fair understanding of "finances in general" (M=2.50) but felt less confident about "How you'll pay for college" (M=2.75) and "All the different costs for college" (M=2.75). Their knowledge about "Getting a job on campus" and "Taking out student loans" was relatively low (M=2.25 and 1.75, respectively). Participants expressed the lowest levels of awareness about how to find affordable housing off-campus (M=1.25).

Notably, after the intervention, there was an improvement in average knowledge across seven of the eight topics. Participants' knowledge about "all the different costs for college" did not change from pre- to post, but there was a positive change in mean for all remaining items. On average, students' knowledge about "how you'll pay for college" and "taking out a student loan" increased the most, by one full point each. Overall, the average mean positively changed to 0.59 for all eight variables.

Moreover, when I reviewed the four students' responses individually, it was evident that the intervention positively impacted their understanding of college cost financial matters. For example, in the responses on their general financial knowledge and how they would pay for college, no participant responded that they had low levels of understanding after completing Smart Start. All students reported feeling like they had excellent or good knowledge post-intervention. Similarly, although participants reported having "good" knowledge of selecting a meal plan in the pre-survey, three of the four participants rated themselves as having excellent knowledge after the financial coaching experience.

The primary area where participant scores did not improve substantially was related to their understanding of how to find affordable off-campus housing. Before the program, three students said that their knowledge was "poor", and one was "fair." After the coaching program, one participant's self-reported understanding changed to "good," but two remained "poor" and one "fair." This may be because there was no direct curriculum on this topic during the intervention.

Table 14:

Self-rated Knowledge about College Cost Literacy Items

Variable		Excellent (4)	Good (3)	Fair (2)	Poor (1)	Mean	Change in Mean	Standard Deviation
Finances in general	Pre	1	0	3	0	2.50	0.75	1.00
	Post	1	2	0	0	**3.25**		0.50
How you'll pay for college	Pre	0	3	1	0	2.75	1.00	0.50
	Post	3	1	0	0	**3.75**		0.50
All the different costs of college	Pre	1	1	2	0	2.75	0.00	0.96
	Post	0	3	1	0	2.75		0.50
Getting a job on campus	Pre	1	0	2	1	2.25	0.50	1.26
	Post	1	1	2	0	**2.75**		0.96
Taking out a student loan	Pre	0	1	1	2	1.75	1.00	0.96
	Post	1	2	0	1	**2.75**		1.26
Finding affordable housing on campus	Pre	1	2	1	0	3.00	0.25	0.82
	Post	1	3	0	0	**3.25**		0.50
Finding affordable housing off-campus	Pre	0	0	1	3	1.25	0.50	0.50
	Post	0	1	1	2	**1.75**		0.96

Selecting an on-campus meal plan	Pre	0	4	0	0	3.00	0.75	0.00
	Post	3	1	0	0	**3.75**		0.50

Note. The variable means that increased post-intervention are bolded in the table to highlight the increase.

Finally, Table 15 summarizes participants' self-reported college cost literacy, captured on a four-point Likert scale (i.e., strongly disagree, disagree, agree, and strongly agree). Participants' levels of literacy improved in all areas from pre- to post-intervention. Before the educational intervention, participants felt they had a moderate understanding of "I understand what the core costs of college are" (M=2.50, "I understand what types of funding are available to help pay for college" (M=2.75), and "I understand how different adjustments to noncore costs impact overall affordability" (M=3.00). Similarly, the participants reported a moderate understanding of topics identifying resources to increase school funding (M=2.50) and an understanding of enrollment restrictions due to insufficient funding (M=2.50). Notably, the issue of student understanding of the enrollment restrictions that are caused by insufficient funding was a key driver in the development of this research. These enrollment restrictions are a barrier for some students in their first year.

Table 15 shows how, for 7 of 12 items, the means increased at least a full point from pre- to post-survey. These improvements were seen in the following statements: "I understand the enrollment restrictions that may happen if insufficient funding occurs", and "I have a balance to the university over $3,000" ($\Delta$ =1.25); "Can create a budget for your first year of college" (Δ =1.25); "I am very familiar with how much ASU charges for parking on campus" (Δ = 1.25); "I understand the differences in costs for different housing options while attending ASU" (Δ = 1.00); "I understand the different options for my ASU campus meal plan" (Δ =1.00); "I understand how to get assistance from Financial Aid counselors regarding my financial aid and/or scholarships" (Δ =1.25); "ASU is very transparent about the total cost charged to students (e.g., tuition, fees, books/class materials, housing, etc.)" (Δ =1.25).

Examining the frequency distribution of responses from before the financial coaching program to after, students selected disagree or strongly disagree responses a total of 18 times in the pre-survey. However, these responses were not selected for any items in the post-survey. Students responded with "agree" or "strongly agree" to each dimension of financial knowledge. Overall, the survey results demonstrate that students reported that their college cost financial literacy improved after the Smart Start program.

Table 15

Self-rated Understanding of College Cost Literacy Items

Variable		Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	Mean	Change in Mean	Std. Dev.
I understand what the core costs of college are	Pre	0	2	2	0	2.50	0.75	0.58
	Post	3	1	0	0	**3.25**		0.50
I understand what types of funding are available to help pay for college	Pre	0	3	1	0	2.75	0.50	0.50
	Post	1	3	0	0	**3.25**		0.50
I understand how different adjustments to noncore costs	Pre	1	3	0	0	3.00	0.67	0.00
	Post *	2	1	0	0	**3.67**		0.58

impact overall affordability								
Can identify resources to increase school funding	Pre	0	3	1	0	2.50	0.50	0.71
	Post	0	4	0	0	**3.00**		0.00
I understand the enrollment restrictions that may happen if insufficient funding occurs, and I have a balance to the university over $3,000.	Pre	0	3	0	1	2.50	1.25	1.00
	Post	3	1	0	0	**3.75**		0.50
Can create a budget for your first year of college.	Pre	0	1	3	0	2.25	1.25	0.50
	Post	2	2	0	0	**3.50**		0.58
I am very familiar with how much ASU charges for parking on campus.	Pre	0	1	1	2	1.75	1.25	0.96
	Post	0	4	0	0	**3.00**		0.00
I understand the differences in costs for different housing options while attending ASU.	Pre	0	3	1	0	2.75	1.00	0.50
	Post	3	1	0	0	**3.75**		0.50
I know what a "financial hold" is.	Pre	0	2	1	0	2.67	0.66	0.58
	Post	1	2	0	0	**3.33**		0.58
I understand the different options for my ASU campus meal plan.	Pre	0	4	0	0	3.00	1.00	0.00
	Post	4	0	0	0	**4.00**		0.00

I understand how to get assistance from Financial Aid counselors regarding my financial aid and/or scholarships.	Pre	0	1	2	1	2.00	1.25	0.82
	Post	1	3	0	0	**3.25**		0.50
ASU is very transparent about the total cost charged to students (e.g., tuition, fees, books/class materials, housing, etc.)	Pre	0	3	0	1	2.50	1.25	1.00
	Post	1	3	0	0	**3.25**		0.50

Note. The variable means that increased post-intervention are bolded to highlight the increase.

Qualitative Results- Interview

My analyses of interview and field note data offered additional insight into how participating in early college financial coaching impacted first-year low-income university-housed students' understanding of the costs associated with attending the university. Table 16 provides information about the codes and themes that emerged from the qualitative data about RQ1. From the first cycle of coding, I identified 17 initial codes. In the second cycle, I used focused coding to further analyze the data and organize the initial codes into four themes. The themes included (1) clarity about college costs and financing, (2) university support, (3) reasons for budget selections, and (4) benefits of participating.

Table 16

Grouping of Initial Codes to Form Emergent Themes

Theme	Initial Codes Grouped to Form Theme
Theme 1 Clarity About College Costs and Financing	Concern about cost and funding Understanding the ins and outs of aid types Funding questions
Theme 2 University Support	Ability to carry a balance with the university Working with university staff On-campus jobs Payment plan availability
Theme 3 Reasons for Budget Selections	On-campus living benefits Social benefits Family influence Immersion in the college experience
Theme 4 Benefits in Participating	Visualizing the costs Program tools Conversations vs. paper explanations Understanding college costs Understanding choices in cost Concerns are addressed

Table 17 provides overall summaries of each theme and how I defined them from the data. In the remainder of this section, I provide additional details about each theme, substantiated by quotes from the four participants.

Table 17

General Summary of Themes

Theme	General Summary of Theme
Theme 1 Clarity About College Costs and Financing	Students expressed that they had concerns about being able to afford college and concerns that others had for them. They wanted to understand the college costs and what available aid was that they could use to pay for college.
Theme 2 University Support	Students became aware of the leeway from the university to balance with the university, use payment plans for debt to college, and that there were university financial aid office staff available to assist them. They also understood on-campus employment availability.
Theme 3 Reasons for Budget Selections	Living on campus was a priority for students. They wanted to fully engage in the social and academic benefits of being fully immersed in the college experience. The cost of living on campus was known to them, and they wanted to take on the cost to have the experience. Living on campus was practical and beneficial. Family, friends, and school counselors encouraged the students to live on campus.
Theme 4 Benefits to Participating in Financial Coaching	More than the benefit of understanding the basic cost of college, students explained that they felt supported by having an opportunity to review their overall questions on college costs and various resources through conversations with a university representative. The dialogue was a benefit not available in the financial aid award letter provided by the university.

Theme 1: Clarity About College Costs and Financing

After participating in the coaching program, the students felt little to no concern about covering costs. The student with the identifier of 1002P, when asked if he had any pending concerns, explained:

> Umm, honestly, no. With the help of being able to go through it with you and kind of do a cost breakdown. It did help me kind of visualize it and realize what exactly is necessary and how it would be paid.

This commentary voices the student's sense of ease that resulted from having the opportunity to do a step-by-step analysis of their costs and funding resources. This individualized support assisted him in having clarity on his specific financial situation. Student 1001P also expressed that he understood more about "where all the payments are going and how much you may need, like, after [aid has been used]." Participants expressed that they had concerns when beginning the intervention but felt that concern dissipate as they engaged in coaching. Participant 1004P echoed this sentiment with their statement that:

> Right now, I don't have any concerns. I feel like we went 'cause, when we did it, I feel like we went over, instead of just saying, oh, it's gonna be like $12,000. It's like, it was like divided, so I would know it's this for this much and this for that much. So, I'm not really as concerned as I was before.

This student acknowledged that they experienced more concern about finances prior to experiencing the intervention and then had less concern after going through the coaching program. In addition, students expressed an overall increase in clarity in college costs and aid types.

One specific area where students gained clarity was student loans. Student 1002P declared that:

> In the beginning, I wasn't sure if I needed to take on loans, and as I went through and did the cost breakdown, I realized I needed to. Umm, that… and just kind of breaking down on which areas I need to spend more on. And what else did I? I added scholarships, which helped me visualize how many scholarships were going in, and then Pell Grant and then work-study.

College cost financial coaching was instrumental in demystifying concepts like subsidized and unsubsidized student loans. Student 1003P had a similar moment of clarity regarding loans, explaining that:

> I think honestly, before this, I didn't know what these loans, like subsidized and unsubsidized loans, are. But through this financial coaching, [it] has helped me understand what they are. And how to apply them, of course, how to talk to financial aid to increase their offer or anything like that. So yeah, it has helped me a lot.

Student 1004P reported having a sense of increased clarity on borrowing as well. Three of the four students in the study decided to take on a loan their first year after understanding the difference between the available loans. 1004P explained that they "didn't understand how loans worked" and that they "didn't even know there were like two types, like, subsidized and unsubsidized".

In terms of how the Smart Start improved students' understanding of college costs and financing, the Excel budgeting sheet tool seemed to be particularly valuable. Participant 1004P expressed that:

> By putting all the numbers in [the budgeting sheet] and then calculating how much it would cost overall for college and then my fees. I think all my grants and stuff, and then showing like the total of, like, how much I'm more likely to, like, owe.

The interactivity and personalization of the worksheet allowed participants to see where a deficit could be and adjust their financial decisions accordingly. After reviewing their projected costs, students often decided to make small changes, like lowering their meal plan to stretch out their funding.

Theme 2: University Support

Students acknowledged in the interviews that they learned about various university policies and practices that exist to support students and reduce the barriers that finances can create. However, some ways were perceived to be more beneficial than others. Participant 1003P identified a few that he found most impactful to know about, such as the university payment plans and the ability to carry a balance and still register for the next term. He explained that he wanted to leverage the support and resources provided by the university so he would not be a financial stressor for his family and ultimately persist to the second semester:

> Because I was thinking of being on a payment plan to pay for college at ASU, and financially, having that [work study] job would be better. So, because then I could pay, through payment plans and try not to depend on, you know, my family or anyone else. And well, I know you mentioned that we could have a due balance of about $3,000, and we can continue to [the] second semester, which is a great thing…

Another tool the coaching sessions brought to light was the ASU program that allows Pell Grant-eligible students to bill their student accounts up to $650 for books and supplies. This program is available up to six weeks before school begins and can be used in the university bookstore ("How Do I Buy My Books with Financial Aid?", n.d.). Participant 1004P appreciated the information that she could access the voucher to pay for books and supplies before school started.

University practices can also create barriers to students' knowledge about their financial situation. Student 1003P had the most concerns about his finances because, in the initial coaching session, I discovered that he had not been awarded by the financial aid department yet and was caught in a system issue that stalled his award. The student had to navigate obtaining further assistance from the financial aid department to make sure he was able to obtain and action his aid.

In addition, students also felt unsupported by the university due to a lack of personalized conversation and guidance from the institutional representatives regarding college costs and finances. 1001P explained that while the university "send[s] you that little paper that breaks it down, but it's still like it's not as good as talking to somebody you know, that looks at it and makes like the worksheet as we did." This is similar to the sentiments expressed by 1004P about the pro forma overview of costs provided by the university instead of a personalized review:

> I feel like we went over [actual costs] instead of just saying, oh, it's gonna be like $12,000. It's like it was divided, so I would know it's this for this much and this for that much.

These experiences illuminated the vital role of institutional support and communication in ensuring that every student can access the resources necessary to pursue their educational aspirations.

Theme 3: Reasons for Budget Selections

In the interviews, students explained how and why they made various budget selections. Many students adjusted their budgets when they realized they could make financially sound changes while participating in the intervention. In the interview, students addressed why they chose various factors in their budgets. Some discretionary spending categories were lowered, and others were removed. One student decided not to purchase extras like an electric scooter, and another decided to change the meal plan size.

Decisions about housing costs were more complex. While housing cost is a big-ticket item, students identified that they decided on on-campus housing due to increased ease in access to classes and university resources, university life engagement, personal growth, and family/peer influence. Many participants expressed that while they understood that living on campus had a high cost, they factored in other considerations and opted to live on campus. Student 1004P, for instance, mentioned the practicality of living on campus due to the distance between their home and the Tempe campus, citing an hour-long commute. Specifically, she stated:

> I feel like I chose to live on campus more like, as I felt like I was given the opportunity with the honor dorms, but also because, like, Phoenix and Tempe are like an hour drive, and it would be, it'd be really costly to do the whole drive over there. So, if I could just live in the dorms, I could easily just walk to a class. [It] makes it easier, and I don't have to worry about being late due to traffic.

This sentiment was echoed by student 1003P, who acknowledged the cost-effectiveness of Tooker housing during their first year at ASU. The students' calculations led them to believe that the benefits of living on campus outweighed the potential savings from off-campus alternatives. In addition, there is a practical advantage in being on campus during your first year in college and adjusting to the new environment. 1001P explained that “it's smart to live on [campus] the first year, to like figure out everything. Like figure out where all the classes are”.

All students cited the opportunity to better engage in university life as why they chose to live on campus. Participant 1001P detailed how “some of my friends from my high school [are] all in the same dorm, all 4 of us”. He added that he wanted to “enjoy and live in the college experience, I guess. I feel like it’ll be fun”. In line with this sentiment, 1004P shared that she “wanted to be like, learn to be like more social, and Tempe is like the bigger campus. I was like, you know what? I'm gonna go to Tempe”. More specifically, 1002P reflected that:

> I guess a big aspect of it is being able to be social with other people that also live within, you know, you have your dorm mates, your suitemates. And just kinda having, being included in the environment, definitely helps with the whole process of transitioning to university compared to living off campus.

Another recurring sub-theme associated with choosing more costly housing options was the desire for personal growth. Student 1001P considered living on campus as a means of building character and responsibility by needing to navigate an independent life at the university, while for others, it was a challenge to be more social in an unknown environment. Peer and family influence also played a pivotal role in shaping some students' housing decisions. Student 1003P mentioned that his high school counselor encouraged him to live on campus. For 1001P, his brother-in-law and sister encouraged him to live on campus for the first year, emphasizing the value of the college experience associated with on-campus living.

The interviews with these first-year students provided insights into the factors influencing their budget choices. Overall cost, the desire for social integration, personal growth, peer and family influence, and being able to engage the university fully. These factors all played roles in shaping their decisions. The varied perspectives underscore the complexity of the decision-making process and emphasize the importance of understanding individual priorities when it comes to selecting elements of their overall budgets. This included small items like meal plans and larger considerations such as whether or not to live on campus. Ultimately, the students' experiences shed light on the multifaceted nature of the financial choices made during the pivotal first year of college, where housing decisions are more than just practical; they are also profoundly personal and can carry consequences.

Theme 4: Benefits of Participating in Financial Coaching

Participants expressed that there were many benefits to receiving financial coaching as they prepared for college. When asked if the financial coaching affected their understanding of how to pay for college, participant 1001P emphasized how it helped provide a thorough understanding of the various costs involved, going past the basics provided in the university letter outlining costs. The student explained:

> Oh, it helped me a lot because, prior to all the meetings and everything. Ah, I was sort of, they send you that little paper that breaks it down, but it's still like it's not as good as talking to somebody, you know, that looks at it and makes like the worksheet as we did. So that was really helpful, and I feel more people can benefit from it. Because before, I was sort of… not lost, but a little confused, and now I'm pretty clear, like books and all that extra stuff.

As this quote demonstrates, participants appreciated how the coaching experience not only clarified which elements are part of the cost of college, including extraneous costs like laptops, social activities, and transportation (i.e., Theme 1) but also valued the process of participating in coaching itself. While the information they received during the Smart Start program may be similar to what was communicated through official letters or emails, students separately identified the personalized support that was part of the coaching experience as a beneficial aspect of the program. Early financial coaching also improved participants' knowledge about and preparation for other aspects of college going beyond financial literacy. Students shared that they benefitted from the practical tips offered through coaching conversations, such as work-study opportunities and syllabus navigation to locate book lists. In addition, students identified goal setting as a valuable aspect of the program. The SMART goal-setting activity and follow-up check-ins emerged as a critical aspect of the intervention. It empowered students to define their objectives and plot out strategies to achieve them. Student 1002P confirmed this sentiment, emphasizing the importance of goal setting in financial planning for college, which were elements of the coaching program. He explained that:

> There is a big jump from, you know, having a couple of financial responsibilities. But the jump to university is definitely a lot more. You have to figure out what exactly goes into the cost of living on campus compared to off campus. There are many options, and financial coaching can help you decide what you want and what you can take away to see how that leaves you financially.

Finally, for student 1004P, who was a first-generation college student, early college cost financial coaching served as an eye-opener, dispelling misconceptions and providing clarity on the costs and funding available. Ultimately, these testimonials underscore the positive impact of financial coaching in enhancing students' college cost financial literacy.

Qualitative Results- Field Notes

I also analyzed the impact of Smart Start coaching on students' financial knowledge using observational notes as well as a rubric I completed after each coaching session (see Appendix G). The field notes primarily triangulate and support the results from surveys and interviews data collecting tools. They do not add any new themes or results I have not already introduced. Specifically, the rubric captured my observations about students' "Understanding of College Cost Financial Topics," “Money Management,” “Saving for college,” “Decision- Making and Goal Setting,” and “Goal Follow Through”. According to my observation notes from the first session, based on the conversations and questions that came about in the coaching sessions, all students had some level of college cost financial literacy proficiency. As the coaching progressed, I observed that students demonstrated growth in understanding the facets of college cost financial literacy. Table 18 summarizes the scores that I assigned and how they changed across the three sessions.

Table 18

Summary of Rubic Scores for College Cost Financial Literacy Proficiency

Participant	Session	Points Obtained	Points Possible	Score
1001P	1	10	16	62.5%
	2	18	20	90.0%
	3	19	20	95.0%
1002P	1	10	16	62.5%
	2	13	20	65.0%
	3	14	20	70.0%
1003P	1	6	16	37.5%
	2	10	20	50.0%
	3	19	20	95.0%
1004P	1	7	16	43.8%
	2	15	20	75.0%
	3	15	20	75.0%

Note. Points were assigned on a scale of (1) Not Proficient, (2) Partially Proficient, (3) Satisfactorily Proficient, and (4) Exceptionally Proficient. One question was discarded from the calculation due to not being pertinent in all sessions.

In addition to the rubric’s summative scores, my post-coaching session notes provide further depth and details of the college financial coaching’s impact on first-year low-income university-housed students. My notes for a session with 1004P explained how, after considering the cost of a scooter, she decided to walk to classes from her residential hall instead of buying an electric scooter. She shared that she was accustomed to walking for transportation and that she enjoyed using the time walking to better plan out her day. Similarly, the rubric notes for participant 1003P provided more details on the concerns he later identified in the interview and post-survey responses. This participant responded “I don’t know” to the post-survey questions about the types of aid they will be using in fall. My final entry in this field note was:

> The student applied for 10 jobs but no response from any. He is going to talk to the managers of various stores tomorrow and see if he can get more interest that way. He did find a stash of $1,300 from a vending machine he had in high school. He now has $ 1,800 in savings. His dad bought him a computer. He contacted financial aid, who confirmed he could not get the Obama scholarship. Per his previous conversation with Fin Aid, he still hopes for an additional $4,000 grant. He will follow up with them once he has taken the mandatory math test (per their request). After looking at the budget, all the tuition, board, and housing fees that will be due directly to the school, and the $3,000 threshold for registration for the spring semester, the student is worried. He realizes that even when he can raise and borrow funds for ASU bills, he does not have money for books, etc. The student has bought a computer but is worried about being able to afford housing. The meeting was an hour, like the rest of the meetings with him, due to the complexity of his situation. He anticipates now using sub loans, maybe unsub.

Triangulation of Quantitative and Qualitative Data

I synthesized data from the quantitative survey data, qualitative interview data, and my field notes to enhance the trustworthiness and validity of the research. Triangulation combines and cross-references several data sources to support a more valid analysis and form stronger conclusions (Butin, 2010). By triangulating the results of these data collection methods, I was able to discover relationships between the survey results and the interview findings through a grounded interpretive approach for the qualitative data to better comprehend the quantitative data. The data from the various sources provided similar insight to answering the research question of how participating in early college financial coaching impacts first-year low-income university-housed students' understanding of the costs associated with attending the university.

Research Question Two Results

The second research question focuses on the amount of student debt participants assumed after participating in early college financial coaching. Table 19 summarizes the actual tuition charges, financial aid used, participant personal payments made, and outstanding balances for each participant at the commencement of the Fall 2023 semester, according to official university data I collected from student accounts. The "Actual Fall Charges" column reveals the expenses incurred by each participant, including tuition, fees, and on-campus housing, before accounting for any aid. The four students incurred an average of $14,859.70. The costs differed slightly due to individual differences in housing or meal plan selections as well as individual course fees that may differ per participant. The “Actual Accepted Fall Aid" column summarizes the financial aid that individual participants received and chose to accept, a major element of the budgeting aspect of the intervention. These aid programs included Pell Grants, Federal Loans, university scholarships, etcetera. On average, the participants accepted $12,822.13 in total aid packages. The "Actual Personal Resources Used" column represents the participants' payments from their personal funds. Almost all the participants had explained that they would be leveraging personal funds to pay off their balance with the university on the college budgeting worksheet. Still, the data below shows that only one student did follow through with that part of their plan.

Finally, the "Debt to Institution" column provides data that directly addresses my second research question, shedding light on the debt burden carried by these students at the commencement of the fall semester. Three of the four participants managed to keep their outstanding debt below the crucial $3,000 threshold required for spring registration. This finding underscores the possible positive impact of the intervention in helping these students navigate their finances and mitigate the potential financial barriers they face in pursuing their education. While the participant number of this study is small, additional cycles of research can provide supplementary data points to measure statistical significance. These results highlight the importance of early financial coaching in empowering low-income students to make informed financial decisions and ultimately succeed in their academic journey.

Table 19

Participant Financial Summary

Participant	Actual Fall Charges	Actual Accepted Fall Aid	Actual Personal Resources Used	Debt to Institution
1001P	$14,481.89	$14,138.50	$0.00	$343.39
1002P	$14,637.45	$12,353.00	$0.00	$2,033.05
1003P	$13,695.00	$8,363.50	$0.00	$5,331.50
1004P	$16,624.45	$16,433.50	$365.50	$325.45
Overall average	$14,859.70	$12,822.13	$91.38	$2,008.35

Research Question Three Results

The final research question focuses on how participating in early college financial coaching impacts how first-year low-income students describe their intent to persist. My discussion of the results begins with the quantitative findings from the pre-and post-surveys, followed by a synthesis of the qualitative data collected from interviews.

Quantitative Results

Table 20 summarizes the results from four items included in both pre-and post-surveys that pertain to students' self-reported chances of persistence. The table shows that there is no great change between the responses each student gave before and after the intervention. Overall, participants reported with high certainty that they would return to ASU in the Spring 2024 term. Before the coaching workshop, two indicated their chances were 100%, and two indicated their chances were 75%. After the intervention, one of the latter increased their estimate to 100%, while the others did not change their responses. Participants' self-reported likelihood of completing a bachelor's degree at ASU was also relatively high and consistent between pre- and post. One participant did not respond to this question on the pre-survey, but on the post-survey, said their chances of graduating from ASU were 100%; the others had the same response before and after the workshop, with two indicating 75% odds, and one selecting 95%.

I also included two items that proxy stop-out or departure behaviors from ASU. Participants reported very low chances of transferring to another college or university before graduating from ASU, with a pre-survey mean of 8.3%. Interestingly, they self-reported a slightly higher propensity to potentially transfer in the post-assessment, with scores ranging from 2 to 25, on a scale of 0-100 where 0 represented no chance and 100 represented a complete chance. These scores still represented a relatively low chance to transfer out of ASU and had an average mean of 14.3%. Finally, when reflecting on the possibility of taking a temporary leave of absence from ASU, two students reported the same estimate on pre- and post-survey (25% and 50%, respectively). One reduced their likelihood slightly, from 10% to 5%, and the final participant did not answer this question on the pre-survey but said there was no chance at all after the workshop.

Table 20

Summary of Intent to Persist Responses

Using any number on a scale of 0 to 100 answer the following questions where:
0=No Chance, 25= Very Little Chance, 50=Some Chance, 75=Very Good Chance, 100=Complete chance.

Variable		1001P	1002P	1003P	1004P	Overall Mean
What is your best guess about your chances of enrolling in classes again at ASU in Spring 2024?	Pre	100	100	75	75	87.5
	Post	100	100	75	100	93.8
What is your best guess about your chances of completing your bachelor's degree at ASU?	Pre	*	95	75	75	81.7
	Post	100	95	75	75	86.3
What is your best guess about your chances to transfer to another college or university before graduating from ASU?	Pre	*	0	0	25	8.3
	Post	2	5	25	25	14.3
What is your best guess as to the chances you will temporarily take a leave of absence from ASU?	Pre	*	10	25	50	28.3
	Post	0	5	25	50	20.0

**Indicates missing response from participant*

Qualitative Results

The qualitative data collected in the interviews provided insight into how students described their intent to persist. Overall, all the students agreed that they would attend the spring semester at ASU and provided a simple yes when asked. Participant 1001P expressed a strong commitment to attending ASU but because of its proximity to family and the fact that most of his sisters are alumni of the institution, not because of the intervention:

> Oh, yeah, it's definitely like the closest ones in my family and everything. And it's the ones that all my sisters but one, [except] only one sister, went to. So it's definitely like, I'm gonna stay there.

Some participants reported that participating in early college financial coaching impacted how they described their intent to persist. Participant 1004P concurred that they would attend ASU in the spring term but acknowledged the importance of financial considerations in their decision-making process. Likewise, Participant 1003P shared that his ability to obtain an on-campus job will affect whether he persists:

> Well, I know you mentioned that we can have a due balance of about $3,000 and we can continue to [the] second semester, which is a great thing, but if I get a job at ASU or on campus, that will help me pay towards university and that will be a big, decision towards me going into my spring semester.

Additionally, participants' interview responses showed that college cost and affordability were central to how they described their chances of remaining enrolled. 1001P mentioned that scholarships and financial aid played a crucial role in making university education accessible. Without these resources, he might have considered taking the community college route and delaying university enrollment by a few years. However, due to the aid package he received, which required minimal out-of-pocket expenses, the student felt he was on track for degree completion. Participant 1003P expressed that he would probably continue his education at ASU due to having gotten less competitive financial aid packages from other universities. He stated, “I think I will, yes, I think I will ‘cause honestly, I've looked at other offers from universities, and they're pretty much lower than ASU.” Finally, 1004P explained that attending university without a solid financial plan or backing would be simply unfeasible:

> I don't have a lot of money and am not really wealthy. So if I don't have a financial plan or some kind of backing, I just won't attend because I just physically can’t pay for all the classes.

These students' responses underscore the critical role of financial considerations in shaping their higher education choices.

Summary

In the results chapter, I used both quantitative and qualitative methods to identify meaningful insights and patterns that emerged from the data. Through a combination of descriptive statistics and qualitative data analysis, I gained a valuable awareness into understanding how early college cost financial coaching impacted students’ understanding of the costs associated with attending the university, the amount of outstanding debt owed to the university by first-year low-income university-housed students as of the commencement of the fall semester, and how first-year low-income students describe their intent to persist. The analysis revealed several notable findings, including the positive impact that participating in early college cost coaching had on students' knowledge about college costs and how they describe their intent to persist. I observed mixed results as to whether the program affected the amount of debt owed to the university by the students.

This chapter serves as a foundation for the subsequent discussions and conclusions presented in the next chapter, shedding light on the underlying data and setting the stage for informed decision-making and future research directions on this topic.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

As a Retention Coordinator Senior at Arizona State University, I am responsible for encouraging student success and persistence. In this role, I have observed students unable to continue in their second term due to not understanding the true cost of college or because they were unable to register for classes due to unpaid balances. Informed by this problem of practice, I designed the Smart Start coaching program to support low-income students' financial decision-making. Four students participated in the program, which consisted of three one-on-one coaching sessions that encompassed setting a budget and constructing financial SMART goals.

I implemented a mixed-method action research study to investigate the impact of the early college cost financial coaching program. My study addressed the following research questions:

> RQ1 How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university?
>
> RQ2: After participating in early college financial coaching, how much outstanding debt to the university do first-year low-income university-housed students assume, as of the commencement of the fall semester?

Q3: How does participating in early college financial coaching impact how first-year low-income students describe their intent to persist?

Data were collected over five weeks from the four students. They completed a pre-and post-survey and an interview after the coaching sessions concluded. This chapter includes a discussion of the findings, limitations of the study, implications for practice and further research cycles, a summary of lessons learned, and concluding thoughts.

Connecting Results to the Literature

Tinto and Pusser's Model of Institutional Action (MIA) for Student Success (2006) argues that student success does not occur haphazardly but results from constant and calculated institutional actions, policies, and practices continually employed over the long term. Nonetheless, the model describes that universities often look at the individual student to decipher why they do or do not persist each year. When looking at reasons a student does not persist, financial issues are often part of the discussion. Institutions may not investigate if there are internal practices that are the root of the cause of the issues, let alone create programs that address problems early in the students' college careers, specifically before incoming first-year students begin their first semester of classes.

My findings substantiate the MIA's notion that colleges must create an institutional environment that includes a commitment to low-income and underrepresented students through financial and advising support (Tinto & Pusser, 2006). In my study, participants identified that they had various concerns about how they would pay for college and what the various costs of college entailed. They also explained that while the university had provided a financial aid award letter with details of their financial aid packages and university costs, it was not sufficient to ease their worries or answer their questions about paying for college. After participating in the Smart Start college cost financial literacy program, participants expressed almost no concerns with funding their college costs and had an increased sense of understanding of the various resources to pay for college and the individual costs associated with attendance. Overall, participants identified that this positive change was due to the personalized review provided by the program and the guidance I provided as a coach. This impact is reflective of the essential actions of the Model of Institutional Action that promote student success. While the MIA does not provide specific suggestions or programs to engage for this purpose, it does emphasize the need to provide the services intentionally. My study corroborates the importance of intentional practices and also adds specificity to how institutional programs may be designed in alignment with MIA principles.

My approach to designing the coaching program incorporated elements recommended by prior studies of institutional policies and practices for college cost financial literacy. Specifically, I designed Smart Start to include components that clarified financial information by establishing more robust methods for estimating non-tuition costs and educating students about financial aid, providing actionable, relevant, and timely information, and improving key financial skills (Coker & Glynn, 2017; Literacy, US Financial and Education Commission, 2020). Smart Start's steps included those actions specifically, and my findings support their efficacy. Notably, most participants in the study moved from expressing that college might not be affordable to thinking college was within their means after having a better understanding of their costs and finances.

A novel aspect of Smart Start was that it was developed and delivered by an academic advisor functioning as a coach rather than someone in a traditional financial aid role. The students reported having a positive experience with having me, an advisor, as a coach. They were overall grateful for having a university representative provide individualized connection and coaching on college costs. As a financial coach, I was able to leverage the core skills of helping students acquire relevant information to make responsible decisions consistent with their interests and goals while promoting a sense of support between the university and the student, but regarding college cost financial literacy instead of academics (Noel-Levitz, 1997; Rozhenkova et al., 2022; Schwebel et al., 2012; Swecker et al., 2013).

Moreover, the participants' positive reactions to an advisor assisting them with financial topics are reflective of the idea that academic advisors are capable of successfully reviewing financial topics with students (Hitchcock, 2012). This is an example of Supiano's (2008) research that urged universities to leverage various resources to support students. Lastly, students made impactful changes to their financial budgets and goals while in the Smart Start program. These changes decreased participants' balance owed to the university at the commencement of the fall semester. Early implementation of an intervention is a key recommendation by many researchers. This is especially important during the transition to college. There are various institutional practices and timelines that a student must navigate and adhere to (Cummins et al., 2009; Gerrans, 2021; Hagadorn, 2017; Supiano, 2008).

Discussion of Findings

Research Question 1: How does participating in early college financial coaching impact first-year low-income university-housed students' understanding of the costs of attending the university? The pre-and post-survey data collected showed that before the intervention, participants expressed having a fair amount of knowledge of general and college cost financial topics, including the various costs associated with attending and the types of aid they used. Participants expressed increased knowledge after the intervention in seven of the eight college financial literacy variables measured. The change in mean ranged from .25 to 1 from in these variables. The most meaningful response measured on the survey was "How you'll pay for college." That variable mean changed from 2.75 to 3.75 from the pre- to post-survey. These changes in knowledge were a result of the coaching program model where I provided pertinent information on college cost financial literacy items to the participants but let them ask questions at any given time. In addition, while I provided the budgeting and SMART goal templates, the participants filled out the forms on a shared screen during the session. I tailored their guidance to each participant's specific needs, concerns, questions, and goals in each one-on-one session. The model utilized active learning throughout, and this contributed to its success.

In addition, the qualitative data collected supports the finding that the intervention positively impacted the participants' understanding of college cost financial matters. Students spoke about how they believed that the coaching allowed for meaningful and student-specific dialogue. The participants expressed that the discussions clarified their situations and the actions needed to address any possible financial issues identified. One student explained that "being able to go through it with you and kind of do a cost breakdown. It did help me kind of visualize it and realize what exactly is necessary and how it would be paid." The exercises, conversations, and intervention tools in the coaching sessions resolved many questions and concerns for participants. Moreover, post-intervention, most participants had very little concerns with their college costs and a strong understanding of college costs and finances.

Research Question 2: After participating in early college financial coaching, how much outstanding debt to the university do first-year low-income university-housed students assume, as of the commencement of the fall semester? The results suggest that most students in the study did not have a large outstanding debt to the university at the commencing of the fall. However, it is important to note that three of the four students received financial aid packages that assisted in covering most of their direct costs at the university. Two students, in particular, had scholarship packages that almost completely covered their debts to the university, even in selecting on-campus housing and the largest meal plan, two large ticket items in college costs. One student decided after the first coaching session that he would have to take on loans to pay for housing but was comfortable in doing so since it was the experience he wanted to have. He was able to accept those funds and not have a high outstanding debt to the university.

Only one participant had a high debt to the university at the commencement of the fall semester. The participant discovered at the first session that he had not gotten any type of financial aid award even though the financial aid office had told him to wait for their file to be reviewed by staff for awarding. Unbeknownst to both the financial aid office and the student, his file had gotten stuck in the system for weeks and was not on the path for review. During the first coaching session, the student and I identified and escalated this issue for assistance from the financial aid office. The student began to worry because his friends had all been awarded weeks earlier, and he knew that he had missed the priority deadline for some scholarships. While he had expressed some level of concern about his aid not being awarded, he had confidence that once he received his aid, it would be at the level of his friends. In this example of a student's experience, the student had sought help from the financial aid office and was told by the institution to wait for their turn. Unfortunately, their turn was delayed because they were caught in an institutional systems error, and there was no personal help offered to the student. If not for this participant's involvement in the study, he would have been stuck in the system for a longer time. It took some effort from myself and the student to get his award processed, but the amount was not what he had hoped for. Having a delay in receiving his award caused stress for him because although he was proactive in following up with the financial aid office before participating in the intervention and built a financial plan during the program to raise funds to pay for school, he became more worried about his ability to pay for college than before he began the intervention upon realizing there had been an issue in getting awarded. Pre-intervention, he had an idea, based on his friends' awards, of his costs and resources from the university. Still, after reviewing the costs of college and receiving his award, he was concerned about the additional funds he understood he would need. Like most of the others, this student had identified having personal funds available to pay towards his educational costs but had not paid anything additional outside of his aid. If he does not apply his personal funds to his account, this student may not be able to register for the spring semester.

Research Question 3: How does participating in early college cost financial coaching impact how first-year low-income students describe their intent to persist? The results indicated minimal change regarding how students described their intent to persist due to participating in early college cost financial coaching. The pre-and post-survey data remained, in essence, unchanged for all participants when asked about their intent to persist. While the quantitative data collected in both surveys did not find an impact on how students described their intent to persist due to their participation in the intervention, the qualitative identified other items that impacted intent to persist outside of the intervention. First, the interviews showed that participants had decided to go and stay in college due to a specific set of reasons. One reason was the available scholarships and grants. Three students addressed that they thought about the cost of attendance in general when deciding to attend this university over a community college or other university. One student explained that their persistence in the second semester relied on their overall ability to pay with the previously mentioned resources. The second reason identified was the ability to experience college life. The participants came from various counties and cities a fair distance from the Tempe campus, yet they purposefully and willingly decided to live on campus and communicated a commitment to stay for the year. Lastly, they also described how they wanted to come to the university due to the encouragement of family or high school staff. The sentiment regarding persistence is that it was centered around the student experience but also tied to the ability to pay.

Limitations

A key limitation of this study is the small number of participants. While I attempted to recruit students over several weeks, ultimately, there was a limited number of participants. Due to the small sample size, I was unable to run inferential statistical tests to make generalizations beyond the four participants. I had to rely on the descriptive review of means. In addition, there was an error in the setup of the pre-survey for two questions that I overlooked until the second participant. Therefore, the quantitative results for research question three do not include that individual's intent to persist data. Also this small amount of student volunteers also reflected a sample where most students already had a substantial financial aid package and would not have a large balance with the university.

In addition, the timeframe available to collect data was constrained by the requirements of this intervention. The intervention required accessing students with a high and very high financial need, but many students had not applied for financial aid when I requested the recruitment letter to be sent to the population. In an ideal setting, the sessions would have commenced in early May and continued on a bi-weekly basis until the last week of July. This would allow more time to collect data for all three research questions, specifically for RQ2 about outstanding debt owed to the university as of the start of the fall term. In addition, I conducted only one set of interviews after the coaching sessions were complete. In hindsight, collecting the participant's thoughts with a pre-intervention interview would have provided additional insight into both RQ1, early college financial coaching's impact on student understanding of the costs of attending the university, and RQ3, how students describe their intent to persist, data.

Implications for Practice

The Smart Start College Cost Coaching Program is a beneficial program for use with students. It can be incredibly impactful with low-income students as they navigate going from a free public school system to a pay-to-go higher educational system. The collected data indicate that students were able to grow their knowledge of the true costs of college and the financial resources that may be available to assist in financing their education. The program explains the true costs of college and allows participants to work alongside university staff to develop a plan to meet their financial obligations for college. This result showed that student services practitioners, like academic advisors, can support students in growing their early college costs financial literacy through coaching. This can better prepare incoming first-year students for the financial responsibilities at the university. Advisors have early and continuing interactions with students, making this format a natural way of providing an initial conversation about college costs and financial literacy topics. Advising offices can build programs like Smart Start to assist students in this transition. Moreover, early college cost financial coaching can grow with the student through advising to include other essential financial literacy topics as they begin to move towards graduation and transition to adult financial topics post-graduation.

In reviewing the conditions that the MIA identified to create the right environment to promote student success, the study findings suggest various implications for consideration by institutional leaders and administrators. A summary of these applications is as follows:

> Institutional commitment: This condition refers to the readiness of the institution to invest resources, incentives, and rewards necessary to enhance student success. Providing university partners, like advisors and mentors, time to serve as a resource through college cost financial coaching is a valuable investment of resources. In addition, the university should consider providing a small stipend to any student who participates in college cost financial coaching. This type of incentive is key for low-income students.

Institutional expectational climate: This condition addresses the expectations that the institution has for student, faculty, and staff conduct and how university representatives balance their times and energies. When looking at the findings, students appreciated a personal review of their finances. Allowing for early college cost financial coaching in advising demonstrates an increased willingness to prioritize a holistic approach in helping each new student successfully transition to college versus focusing on registering them in classes and providing general information.

Institutional support: Students appreciated the personalized support in early college cost financial coaching. Expanding the program to include student mentors can strengthen the social support element embedded in the MIA.

Institutional feedback: This applies to all stakeholders, including faculty, staff, and students, in receiving feedback about their performance. The university can be more proactive in asking students about their financial experience at the university, specifically asking for feedback about their satisfaction with how college costs and their financial aid packages are explained. Students in the research noted that while the university did provide a financial aid award letter, it was not sufficient to address their concerns about funding their college costs. In addition, this element of the MIA addressed how early warning systems are embedded in institutional feedback as a proactive tool. Leveraging a financial early warning system for students can help increase persistence. In this intervention, an early warning system can be that a trigger point would be identified so a student can be assigned a mentor to conduct college cost financial outreach when needed.

Institutional involvement: This area focuses on social and academic engagement and emphasizes how students who engage more with other students and faculty are more likely to persist. Early college financial coaching can support students' connection to the institution by building community through mentoring and helping identify student-specific areas to assist with.

Suggestions for Future Cycles of the Intervention and Lessons Learned

***Suggestions for Future Cycles*.** The research I conducted was impactful for students. It was evident that while students had different financial situations and some did not have major concerns coming out of the first coaching session, all four students felt supported and had a level of relief in having had the opportunity to work with a staff member to review their unique situations and build a financial plan.

While my research encompassed only in-state, low-income, university-housed students, it can be scaled. For the next cycle of the Smart Start program, I would want to begin offering the coaching program to include all moderate-need students and students with lower denomination merit scholarships. I do think some of these students are in financial constraints if their scholarships are not sufficient to cover tuition. Cycles after this would include out-of-state and international students and after I research current university practices to ascertain how this program could supplement services provided now.

In future cycles, I would embed this workshop as part of their orientation experience. The Smart Start Program would be part two of orientation and occur the following week after. Students would select their session time before being dismissed at the end of orientation. This would take advantage of how students come from an educational model where they are accustomed to being told what to do by the academic institution. The hope is that the students will not push back on participating since it is part of the orientation process, and more students would participate. In my research, few students opted in, but if the standard is to have the program as part of orientation, more students would participate.

Lessons Learned. Having students select their appointment times while with an advisor will be helpful because, in my research, it took several weeks to find participants for the intervention, and it seemed that once orientation occurred, it was hard to contact students. Part of the issue was that ASU had not activated most student emails. This issue meant that many emails, including my recruitment letter, were sent to their inactive ASU emails. For a future cycle, I would offer the program as one of the orientation steps. It was working backward to try to have students engage in the intervention once students had completed orientation. However, if advising explains the coaching program and students can sign up for a coaching session during orientation, I believe more students would participate.

As far as updates to the Smart Start program, I believe that students would benefit from receiving a copy of the session notes that included a summary of the coaching discussion and the main ideas discussed highlighted. These notes should be concise, include tips and recommendations based on the discussion, and be sent within one working day to make the information timely and useful. In addition, because the orientation season is so busy, I would work with the other Retention

Coordinator in my department to coordinate these coaching sessions and train the SCAI student mentors to assist in coaching. Due to the volume of students that advisors see in the summer during orientation season, they would not have the capacity to deliver the Smart Start Program coaching sessions. Yet, there are Retention Coordinators and mentors who can. The sessions would be targeted to low- to moderate-income students and students with lower denomination merit scholarships more directly but would be available to any student who would like to participate. Advisors would provide students the link to sign up for a session at the end of orientation, and SCAI mentors could do a call campaign to assist in enrolling students in the first coaching session if students do not register at orientation.

In addition, I think the coaching sessions' timing would be different. I would want to try to schedule student coaching sessions every two weeks and include a final session within the three weeks before school starts. This timeline would address making final payments of balances to the university before or shortly after school commences. This will help lessen the number of students who are enrolled in payment plans or accrue late fees. It was surprising to realize that participants did not pay their balances off with their out-of-pocket resources as they had identified in the coaching sessions. Students may not be aware that the university will leverage late fees when they generally have an outstanding balance. While most students had balances to the university that were under the $3,000 threshold to be able to register for the spring semester, students may still have to pay late fees if they have a balance.

While the intervention collected important data and the students found value in participating, I learned additional lessons while delivering the intervention. Specifically, there were timing issues in the intervention. One major issue was that students did not know if they were staying on campus at the time of recruitment. Students not knowing their housing status impacted the effectiveness and timeliness of sending out the recruitment letter since the research sample was low-income, campus-housed students. Having the intervention provided to all students may have yielded participants more quickly. Similarly, many students had still not applied for financial aid when the intervention began and were still applying late through summer. Part of the coaching program can include having students apply soon after the first session in preparation for the next session if they have not applied yet. Having actual costs and financial aid award information for the student and using it in the budgeting exercise was one of the participants' most impactful aspects of the intervention. Having students apply for aid can also help guide other steps needed before school begins, like accepting loans to avoid late fees.

In addition, it is vital to provide college cost financial coaching very early, while the student is still in high school, to have the most ability for students to identify actionable adjustments to their financial plans. There are important financial deadlines for commitments to the university that begin in May. Students can have a better chance of making changes to those commitments that can lessen their overall debt to the university if financial coaching is offered early. Overall, the intervention, while still early in their college experience, was still late to address other elements of college costs and thus late in helping students prepare for those expenditures. Some areas that were not covered in the intervention due to timing included specialty college saving programs and looking at overall costs associated with college fit. To best assist students, Smart Start would be a continuation of a high school partner program. These concepts should be introduced as part of the high school experience for all students in conjunction with high school and university partners. For example, high schools may already have career counselors and university admission staff on campus that offer some type of college preparation curriculum. Having the Smart Start program provided by these stakeholders would help with the timeliness issue. Students could come to the university with a strong foundation in items.

In addition, while my research did not take into account the role of the parent as an active part of the intervention, the university partner Access ASU already provides outreach to high school students and their parents on enrolling and preparing for success. This partner could assist with answering parent questions during their child's participation in Smart Start.

Regarding data collection and the instruments used, I wish that I had conducted a pre-interview along with a shorter pre-and post-survey. I think valuable information in the student's voice could have provided more depth to the data, its analysis, and results. During analysis, I often wished that I had the participants' thoughts before they underwent the intervention because their post-intervention responses were so impactful to listen to. I would also shift the questions regarding the type of aid that was "offered but not used" from the quantitative survey to the pre and post-interview. I believe this would gather more in-depth data on why a student would not use offered aid. The quantitative data did have interesting results but was binary. Having the data in an open-ended format would provide the “why” of this decision.

Conclusion

Early college cost financial coaching is not an area that comes to mind when thinking of the practices embedded in academic advising. However, advising sessions are a pathway that advisors can use to provide initial foundational support in this area. Advisors assist students with a large range of topics in their first year at the university. They can help with more than guiding students with course selection, advisors can also introduce topics such as college cost planning as part of the services they provide. Overall, advisors help students avoid enrollment barriers; financial holds on their university accounts are one of those barriers.

The data, theories, and results of this research emphasize the importance of creating programs that support student success and assist in removing barriers to persistence. Of all the data collected in this research, the interviews captured the voices and thoughts of the participants. The participants expressed a sense of relief that occurred after receiving financial coaching. As advisors and advising staff, we support students transitioning from high school to college. In our practices, it is vital to provide students with individual and personalized interactions and programming so we can assist them as individuals and not en masse via a paper process. These personal interactions with university staff can impact if students start college on a positive note or with a registration hold due to an outstanding debt to the university.

The Model of Institutional Action supplied a framework to address the actions institutions can take to support students through effective programs. In this model, Tinto and Pusser emphasize that institutional student success rates do not occur haphazardly. Specifically, they result from a sequence of calculated institutional actions, policies, and practices constantly employed over the long term. The data demonstrates that students need additional support from the institution and its representatives to provide personalized support as they transition from high school to college, especially in deciphering college costs. Participants indicated that they appreciated the personalized review of their costs, available financial types, and the creation of a financial plan specifically for them. Even though the university provides quality award letters and online financial fitness resources, personalized coaching assists students the most.

While SCAI students may have experience in the k-12 education system, navigating the pay-to-go system of the university can be difficult if a student has not had to pay for all aspects of their education previously. Providing initial college cost financial coaching is a way for the institution to support a positive transition to the higher education environment and supply students with staff interactions that demonstrate that the institution cares about their success. Student success is at the core of academic advising, and it is why advisors can provide college cost financial coaching to students.

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APPENDIX A

PRE/POST SURVEY

Survey Draft

I. Demographics

1) What is the highest level of education your mother, father, or guardian has obtained?
   - Less than high school
   - High school diploma or the equivalent (e.g., GED)
   - Attended college but did not earn a degree
   - Associate's degree (including occupational or academic degrees)
   - Bachelor's degree
   - Master's degree
   - Professional degree (e.g., MD, DDS, JD)
   - Doctorate (e.g., PhD, EdD
   - Don't know

2) Are you currently employed?
   - Yes, Full-Time
   - Yes, Part-Time
   - Not currently employed

3) **If you answered yes** to #2, How much, on average, do you earn per hour (including wages and tips from all jobs)?

4) **If you answered yes** to #2, How many hours a week do you typically work, on average, during the academic year?

5) Have you ever completed a Free Application for Federal Student Aid (FAFSA)?
   - Yes
   - No
   - Don’t Know

6) Are you using any of the following types of financial aid to pay for your ASU tuition, fees, or housing? (Yes, No, I don’t know)

   - Federal Pell Grant
   - Federal Subsidized Loans
   - Federal Unsubsidized Loans
   - Federal Work-Study
   - Federal Supplemental Educational Opportunity Grant
   - Federal Parent PLUS Loans
   - Private Loans

- ASU grant or scholarship
- Private scholarship from outside donor____________________________

7) Were you offered any of the following types of financial aid to pay for your ASU tuition, fees, or housing but **chose not to use it**? (Yes, No, I don't know)

- Federal Pell Grant
- Federal Subsidized Loans
- Federal Unsubsidized Loans
- Federal Work-Study
- Federal Supplemental Educational Opportunity Grant
- Federal Parent PLUS Loans
- Private Loans
- ASU grant or scholarship

  Private scholarship from outside donor____________________________

8) If so, which one(s)?
   - Federal Pell Grant
   - Federal Subsidized Loans
   - Federal Unsubsidized Loans
   - Federal Work-Study
   - Federal Supplemental Educational Opportunity Grant
   - Federal Parent PLUS Loans
   - Private Loans
9) ASU grant or scholarship
10) Private scholarship from outside donor_________________________________
11) Were you offered any of the following types of financial aid to pay for your ASU tuition, fees, or housing but **chose not to use it**? (Yes, No, I don't know)

   - Federal Pell Grant
   - Federal Subsidized Loans
   - Federal Unsubsidized Loans
   - Federal Work-Study
   - Federal Supplemental Educational Opportunity Grant
   - Federal Parent PLUS Loans
   - Private Loans
   - ASU grant or scholarship
   - Private scholarship from outside donor_________________________________
12) You chose not to use a type of aid, which was it, and why did you choose not to?

13) In addition to the financial aid provided by the government and/or university, are you using any of the following funding sources to pay for your first year of school (select all that apply)

- Money from parent(s) or other family members that don't need to be repaid
- Money borrowed from family or friends that you need to repay
- Money from my current job
- Money from my savings
- Credit cards
- Employer-provided education benefit
- Military/veteran education benefit
- Other

II. Knowledge about college costs

14) I have met with the following to better understand my general finances. Select all that apply.

- ASU Financial aid counselor
- ASU Peer financial counselor
- Another university representative

15) I have met with the following to better understand how to pay for college. Select all that apply.

- ASU Financial aid counselor
- ASU Peer financial counselor
- Another university representative

16) I have met with the following to better understand the overall costs of college. Select all that apply.

- ASU Financial aid counselor
- ASU Peer financial counselor
- Another university representative

17) Have you ever attended any of the following to better understand my finances?
- General financial education class in **high school**
  - Yes | No | Don't Know
- A **reoccurring** personal finance course/workshop in preparation for college
  - Yes | No | Don't Know
- A **one-time** personal finance session/workshop in preparation for college
  - Yes | No | Don't Know

18) How would you rate your level of knowledge about each of the following: (Excellent, good, fair, poor)
    - Finances in general
    - How you'll pay for college
    - Getting a job on campus
    - Taking out student loans
    - ASU's emergency financial assistance programs for students
    - Finding affordable housing *on campus*
    - Finding affordable housing *off-campus*

19) Do you have any concerns about financing your first year of college? If so, what?

20) Please indicate the extent to which you agree or disagree with the following statements:
    (Strongly disagree, Disagree, Agree, Strongly agree)

    - I feel stressed about my personal finances in general
    - I worry about being able to pay my current monthly expenses
    - I worry about having enough money to pay for school
    - I understand what the core costs of college are
    - I understand what types of funding are available to help pay for college
    - I understand how different adjustments to noncore costs impact overall affordability
    - Can identify resources to increase school funding
    - I understand the enrollment restrictions that may happen if insufficient funding occurs, and I have a balance to the university over $3,000
    - Can create a budget for your first year of college
    - I am very familiar with how much ASU charges for parking on campus
    - I understand the differences in costs for different housing options while attending ASU
    - I know what a "financial hold" is
    - I understand the different options for my ASU campus meal plan
    - I understand how to get assistance from Financial Aid counselors regarding my financial aid and/or scholarships.
    - ASU is very transparent about the total cost charged to students (e.g., tuition, fees, books/class materials, housing, etc.)

III. Intent to Persist

Use any number on a scale of 0 to 100 to answer the following questions. Note these benchmarks to help clarify some points on the scale:

0=No Chance, 25= Very Little Chance, 50=Some Chance, 75=Very Good Chance, 100=Complete chance.

21) What is your best guess as to the chances you will: enroll in classes again at ASU in Spring 2024?

22) What is your best guess as to the chances you will: complete your bachelor's degree at ASU?

23) What is your best guess as to the chances you will: transfer to another college or university before graduating from ASU?

24) What is your best guess as to the chances you will: take a leave of absence from ASU temporarily?

APPENDIX B

INTERVIEW QUESTIONS

Interview Questions:

1. Do you have any concerns about financing your first year of college? If so, what? RQ1?
2. How do you believe participating in financial coaching affected your understanding of how to pay for college? RQ2
3. What do you remember about the session?
4. Did you make any adjustments to your college financial plans? If so, what were they? RQ2
5. Do you think that you will attend ASU in the Spring? RQ3
6. How does your ability to pay factor into that decision? RQ3
7. Why did you choose on-campus housing?
8. Did you consider living off-campus? Why or Why Not? RQ2
9. For what reasons would you recommend that other students receive financial coaching as they prepare to enter college? RQ2
10. What changes or improvements do you have in relation to the coaching workshop? RQ2

APPENDIX C

BUDGETING WORKSHEET

Know it Before you owe it
Financial Planning for your 1st year of college

A. Costs that are set and cannot be changed

In state tuition and fees	**$12,698.00**
Total tuition and fees	**$12,698.00**

B. Resources to pay for college

University Grants	
Federal Pell Grant	
State Grants	
Scholarships	
Federal Direct Subsidized Loan (interest is paid by government while in school)	
Federal Direct Unsubsidized Loan (interest accumulates while in school and student is responsible for it)	
Federal Parent Plus Loan	
Family contribution	
Self-contribution- savings	
Regular part time work	
Federal Work Study	
Total monthly income	**$0.00**

Costs that are set and cannot be changed	($12,698.00)
Costs that have options and may impact overall costs	$0.00
Resources to pay for college	$0.00
Difference	($12,698.00)

C. Costs that have options and may impact overall costs

	Projected cost
Books and supplies	
Transportation	
Meals (non-Barrett- **$6,360/ $5,990/ $5,120/ $3,480** Barrett- **$7,760/ $7,360/ $6,640/ $4,870**, no mean plan- varies)	
Housing (Tooker- **$9,238** or Barrett- **$9,362**)	
Other educational and personal costs	
Subtotal	$0.00

APPENDIX D

RESOURCES HANDOUT

Resources

On-campus jobs

- Work-Study
  - Contact Financial Aid and Scholarship Services for more help
  - https://students.asu.edu/contact/financialaid
- Hourly campus
  - https://students.asu.edu/employment/search

Part-time work at tuition jobs

- Amazon- https://www.amazoncareerchoice.com/home
- Chipotle- https://chipotle.guildeducation.com/partner
- Walmart- https://walmart.guildeducation.com/partner
- Education at Work- https://educationatwork.org/
- UPS- https://www.jobs-ups.com/earn-and-learn

Free Books

- Pearson- https://drive.google.com/file/d/1v1oLQ-VGKtN0xyoa6VeFmsyQib5EW8-O/view
- Red Shelf- https://www.redshelf.com/
- Library- https://lib.asu.edu/textbooks

Computer labs

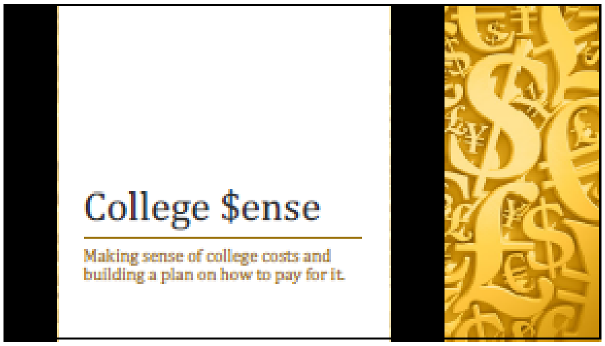
- https://ets.engineering.asu.edu/computer-labs/
- https://uto.asu.edu/services/campus-it-sites/tempe

Computers to borrow

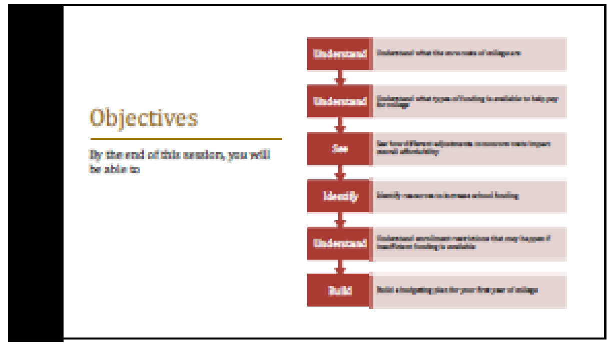
- https://lib.asu.edu/laptops
- https://ets.engineering.asu.edu/laptop-checkout/
- https://outlook.office365.com/owa/calendar/ETSSurfaceCheckoutAppointments@arizonastateu.onmicrosoft.com/bookings/

APPENDIX E

FINANCIAL COACHING PRESENTATION


College $ense
Making sense of college costs and building a plan on how to pay for it.

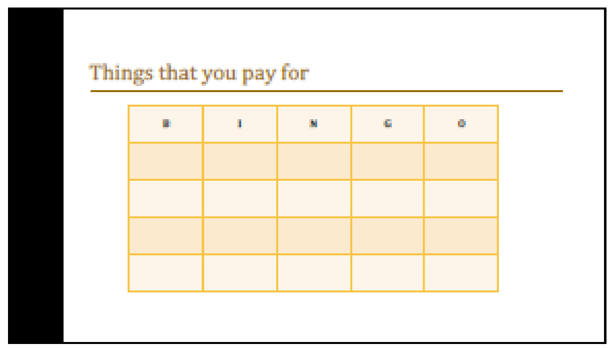
1


Objectives
By the end of this session, you will be able to
Understand
Understand
See
Identify
Understand
Build

2


Pay to Learn Model
K-12 available for all, for free
College is available for all, but not free

3


Things that you pay for
B
I
N
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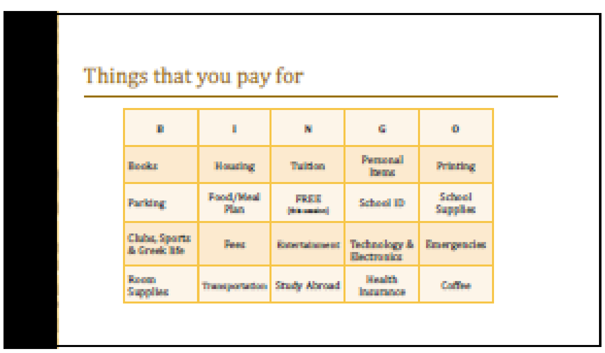
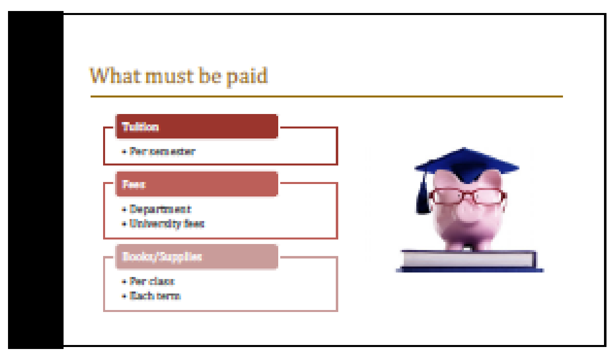
O

4


Things that you pay for
B
I
N
G
O
Books
Housing
Tuition
Personal Items
Printing
Parking
Food/Meal Plan
FREE
School ID
School Supplies
Clubs, Sports & Greek life
Fees
Entertainment
Technology & Electronics
Emergencies
Room Supplies
Transportation
Study Abroad
Health Insurance
Coffee

5


What must be paid
Tuition
• Per semester
Fees
• Department
• University fees
Books/Supplies
• Per class
• Each term

6

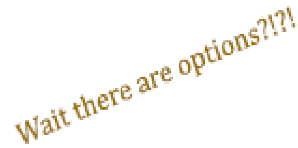
Tuition and Fees

≈$12,398 per year, $6,199 per semester *

- Are set and approved by Board of Regents

- This is set and is the only cost that you can count on paying each term.

7



8

Things that are needed but are flexible

Need	Flexibility
Books	New, used, rented, ebook
Transportation	Transit pass, no car, Rideshare
Food	Eat at home, meal plan, a mix
Housing	At home, on campus, off campus

9

Books

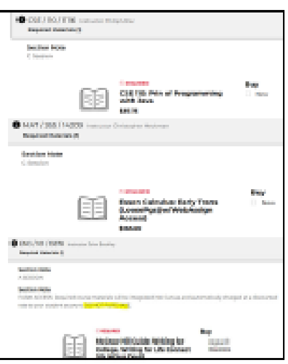
- Free (Pearson, Red Shelf, Library)
- Rent books
  - Online seller
  - ASU bookstore
- Buy used
- Buy New
- Buy Ebook

10

Let's try it

Traditional 1st year books

ASU 101
PSE100
CSE110
MAT 265
PSY 101
ENG 101



11

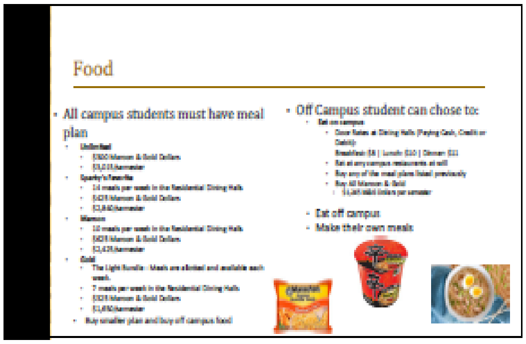
Transportation

- Bring a car to school
  - Insurance
  - On campus parking costs

Parking location	Cost per year
Stadium structure	720
Lot 59 (lot)	280

- Free local shuttle, City of Tempe

12



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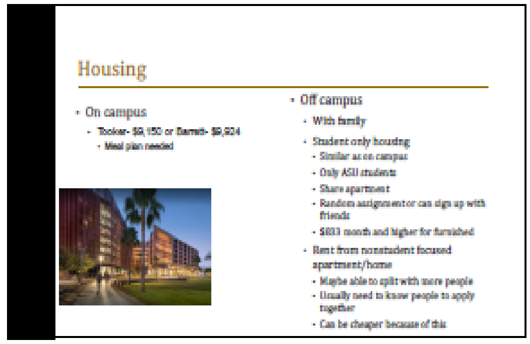

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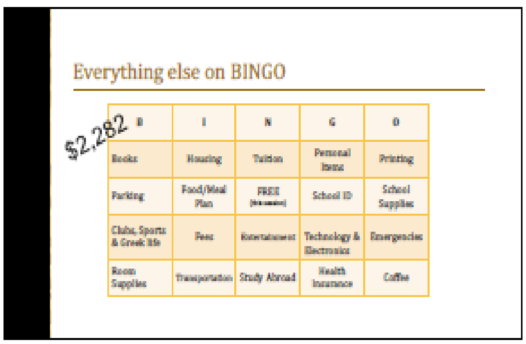

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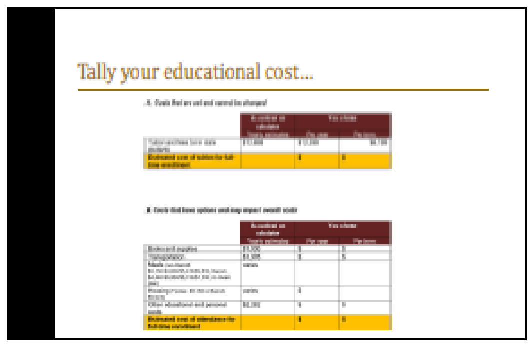

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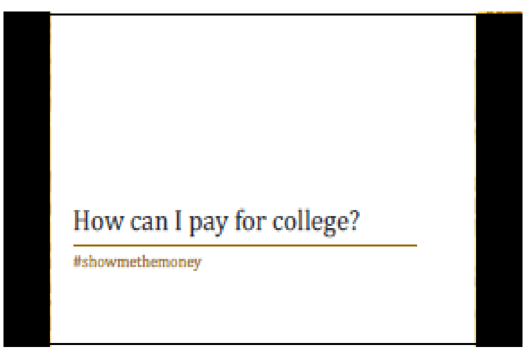

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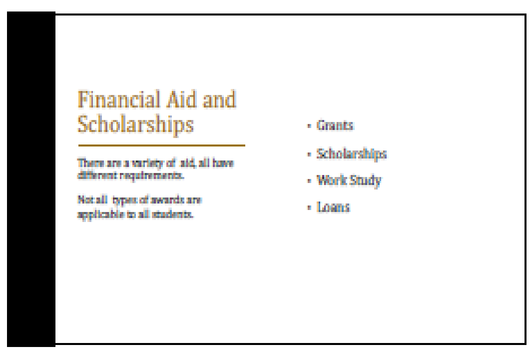

18

Free Aid

- Grants
  - Do not repay
  - Apply FAFSA early
  - Pell Grants
    - Need Based
    - SEOG grant

- Scholarships
  - Do not repay, some require FAFSA
    - Academic Achievement
    - Arizona Academic Decathlon Finalist and Top Score
    - Arizona Top Scholar
    - Flinn Scholar Semi-Finalist
    - Leadership Scholarship Program
    - National Merit and National Recognition
    - New American University Merit Awards
    - Raise.Me

19

Semi free money

- Work Study
  - On campus jobs
  - Get a check like any other job
  - Is listed on financial aid awards
  - Need FAFSA
  - Ask Financial Aid Office for more info

20

Regular jobs

- On campus, off campus
- Timely working
  - Part time during school
  - Full time in breaks
- Part time work at tuition jobs
  - Amazon
  - Chipotle
  - Walmart
  - Education at Work

21

Not Free money

- Loans
- Must be paid back
- Subsidized
  - Interest is paid by Education Department while in school
  - Repaid once out of school
  - Maximum $3,500
- Unsubsidized
  - Interest is accruing and is owed by students while in school
  - Repaid once out of school
  - Maximum $5,500
- Parent Plus
  - Qualified by credit
  - Repayment right after it is paid out
  - Maximum varies

22

Paying for college is all math

- How did your math turn out?
- Is there a difference between your total costs and funding?
- Do you need more resources are needed to meet a difference in cost?

CALCULATIONS PAGE

Cost Totals	Amount	Funding Totals	Amount
Tuition and fees	$	Total grants and scholarships	$
Other Costs	$	Total loans	$
		Total Contribution	$
Grand Total Cost	$	Grand Total Funding	$

	Amount
Grand Total Cost	$
Grand Total Funding	$
Difference	$

23

First let's adjust for needs vs wants

- Tuition+ Fees=need
- Everything else can be adjusted
- Look at section B, what can you adjust?
- Look at section C, where can you adjust?

24

Let's Build Your 1st Year Budget!

- **Let's Build Your 1st Year Budget!**

25

The importance of making ends meet

- Have enough funding for 1st year and beyond
- Having a balance to the school greater than $3,000 will block enrollment for the spring
- Not being able to enroll in spring will cause housing flag. Only enrolled students can remain in university housing
- Lessen worry about the cost of college

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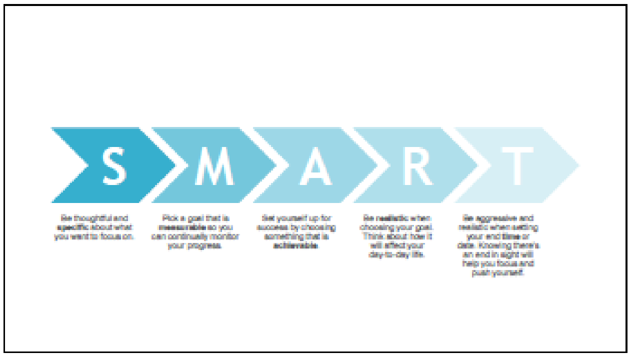
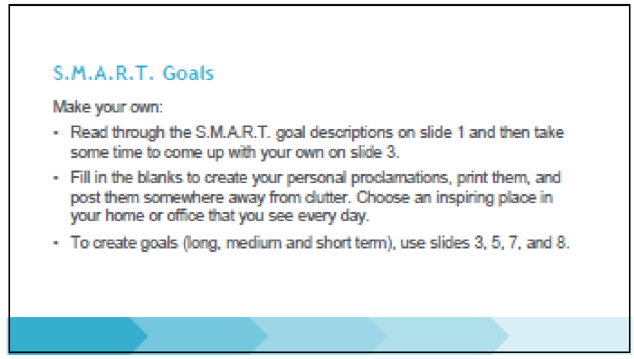
APPENDIX F

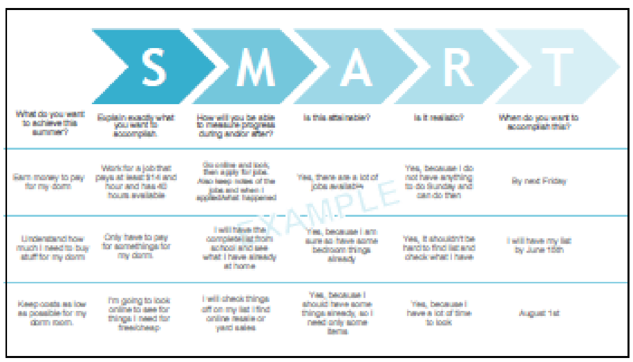
SMART START GOALS EXERCISE


S
M
A
R
T
Be thoughtful and specific about what you want to focus on.
Pick a goal that is measurable so you can continually monitor your progress.
Set yourself up for success by choosing something that is achievable.
Be realistic when choosing your goal. Think about how it will affect your day-to-day life.
Be aggressive and realistic when setting your end time or date. Knowing there's an end in sight will help you focus and push yourself.

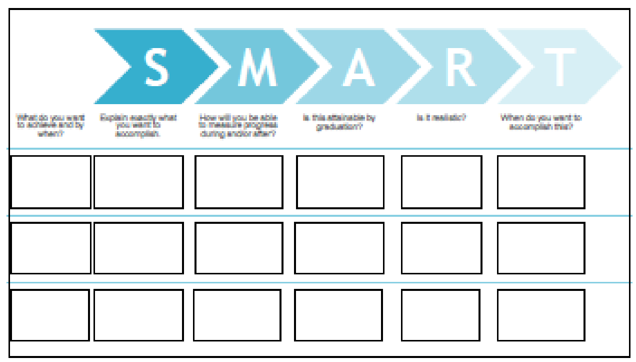
1


S.M.A.R.T. Goals
Make your own:
Read through the S.M.A.R.T. goal descriptions on slide 1 and then take some time to come up with your own on slide 3.
Fill in the blanks to create your personal proclamations, print them, and post them somewhere away from clutter. Choose an inspiring place in your home or office that you see every day.
To create goals (long, medium and short term), use slides 3, 5, 7, and 8.

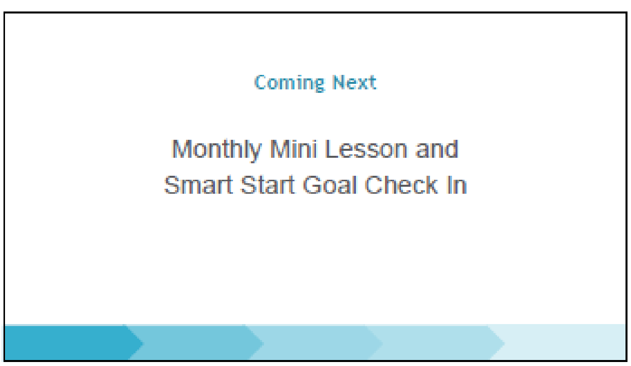
2


S
M
A
R
T
What do you want to achieve this summer?
Explain exactly what you want to accomplish.
How will you be able to measure progress during and/or after?
Is this attainable?
Is it realistic?
When do you want to accomplish this?
Earn money to pay for my dorm
Work for a job that pays at least $14 and hour and has 40 hours available
Go online and look, then apply for jobs. Also keep notes of the jobs and when I applied/what happened
Yes, there are a lot of jobs available
Yes, because I do not have anything to do Sunday and can do then
By next Friday
EXAMPLE
Understand how much I need to buy stuff for my dorm
Only have to pay for somethings for my dorm.
I will have the complete list from school and see what I have already at home
Yes, because I am sure as have some bedroom things already
Yes, it shouldn't be hard to find list and check what I have
I will have my list by June 10th
Keep costs as low as possible for my dorm room.
I'm going to look online to see for things I need for free/cheap
I will check things off on my list I find online resale or yard sales
Yes, because I should have some things already, so I need only some items
Yes, because I have a lot of time to look
August 1st

3


S
M
A
R
T
What do you want to achieve and by when?
Explain exactly what you want to accomplish.
How will you be able to measure progress during and/or after?
Is this attainable by graduation?
Is it realistic?
When do you want to accomplish this?

4


Coming Next
Monthly Mini Lesson and
Smart Start Goal Check In

5

APPENDIX G

COLLEGE COST COACHING RUBRIC

College Cost Coaching Rubric

Participant Number: Date:

Session #

Category	4 Exceptionally Proficient	3 Satisfactorily Proficient	2 Partially Proficient	1 Not Proficient
Understanding of College Cost Financial Topics	The participant effectively communicates on all areas of college cost financial literary items.	The participant effectively communicates on some areas of college cost financial literary items.	The participant effectively communicates on a few areas of college cost financial literary items.	The participant does not effectively communicate in any area of college cost financial literary items.
Money Management	Is able to differentiate at length the differences between core college costs and flexible costs. Explains specifically how some college costs are flexible and connect it to their plans.	Is able to differentiate the differences between core college costs and flexible costs. Explains generally how some college costs are flexible and connect it to their plans.	Is able to differentiate some differences between core college costs and flexible costs. Explains at times how some college costs are flexible and connect it to their plans.	Is not able to differentiate the differences between core college costs and flexible costs. Is not able to explain generally how some college costs are flexible and connect it to their plans.
Saving for college	Expresses has over $1000 of personal savings set aside for college.	Expresses has between $501-$999 amount of personal savings set aside for college.	Expresses has $500 or less saved in personal savings for college.	Expresses no amount of personal savings set aside for college.
Decision-Making and Goal Setting	Sets **SMART** goals and makes decisions that lead to being able to cover college costs for the year.	Sets goals and makes decisions that lead to being able to cover college. Develops a financial plan, including personal budgeting.	Sets goals and makes decisions that lead to being able to cover college. Develop a basic financial plan.	Does not set goals and make decisions that lead to being able to cover college. Does not develop a financial plan.
	Develops a detailed financial plan, including personal budgeting.			
Goal Follow Through	Actively worked on or completed all three SMART goals.	Actively worked on or completed all three SMART goals.	Actively worked on or completed two SMART goals.	Did not actively work on or complete any SMART goals.
Summative Assessment and Session Notes	. ***Budget review:*** ***Goals Review:*** Goal 1- Goal 2- Goal 3-			

Total points /

APPENDIX H

INSTITUTIONAL REVIEW BOARD APPROVAL

EXEMPTION GRANTED

Molly Ott
Division of Educational Leadership and Innovation - Tempe
-
Molly.Ott@asu.edu

Dear Molly Ott:

On 3/17/2023 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	First Year Persistence and College Cost Financial Coaching
Investigator:	Molly Ott
IRB ID:	STUDY00017722
Funding:	Name: Engineering, School of
Grant Title:	
Grant ID:	
Documents Reviewed:	• Blanca Loera Email Script 3.10.2023.pdf, Category: Recruitment Materials; • Blanca Loera IRB Protocol 3.17.23.docx, Category: IRB Protocol; • Blanca Loera Recruitment Letter 3.17.23.pdf, Category: Consent Form; • Blanca Loera supporting documents 3.13.2023.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2)(ii) Tests, surveys, interviews, or observation (low risk) on 3/17/2023.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).