September 2011

THE UNIVERSITY OF ARIZONA

# Young Adults' Financial Capability

**APLUS**

Arizona Pathways to Life Success for University Students

Wave 2


John & Doris Norton School of Family & Consumer Sciences

College of Agriculture and Life Sciences

Take Charge America Institute for
Consumer Financial Education and Research



National Endowment for Financial Education®
(NEFE®)

Citi Foundation

**Soyeon Shim**
*Professor*
*Principal Investigator*
*APLUS*

Dear Colleagues,

When we launched Arizona Pathways to Life Success for University Students (APLUS) longitudinal research in 2007 with a group of freshmen at the University of Arizona as our participants' cohort, we conceived of it as a research project that would enable us to better understand the processes by which young adults develop financial practices and knowledge.

We see this understanding as a crucial first step towards helping young adults learn how to make good financial decisions and become better prepared for life. We are pleased to report that now, in 2011, 72% of the cohort group responded to our Wave 2 survey, and we have already learned a great deal about the changes that occurred in the attitudes, values and behavior of these participants over the intervening three years.

Our analyses of the Wave 2 data, combined with the benchmark data from Wave 1 and our Wave 1.5 global financial impact study, are truly groundbreaking in many ways. Certainly, our scholarly papers should produce beneficial long-term outcomes, and those outcomes should, in turn, lead to new and powerful inquiries that will add to our scientific understanding of the financial socialization process. At the same time, the continuing interest of the media and general public gives proof to the project's broad and immediate relevance.

As with Wave 1 and Wave 1.5, I continue to be indebted to many people for making Wave 2 of the APLUS project a great success. First, I owe deep gratitude to my partner, Dr. Joyce Serido, who served as Co-Principal Investigator and who has not only provided strong intellectual contributions but has also kept the project team working in a timely fashion. Also, without the continuing support and partnership provided by the National Endowment for Financial Education® (NEFE®) and that of our new partner, the Citi Foundation, Wave 2 would not have been possible.

Finally, I owe much thanks to many colleagues. I am grateful to my co-investigators: Dr. Noel Card for his statistical assistance, Dr. Bonnie Barber for her insight into young adults' financial identity development, Dr. Jing Xiao for his expertise in personal finance and Dr. Michael Staten for his ongoing support from TCA Institute. I am also grateful to Robert Lanza for his IT assistance. I want to thank the graduate students who worked on the project—Mr. Chuanyi Tang, Ms. Sun-Young Ahn and Ms. Ya-Hui Kuo—in addition to many campus partners at the University of Arizona. Finally, I want to thank the APLUS students who continue to candidly share their opinions, attitudes and life stories with us.

Together, we are changing the field of research into personal financial management, raising the bar in quality and simultaneously helping to drive change in many other fields by making mainstream researchers in social science more aware of the importance of financial well-being to people's lives.

Thank you.
Sincerely,

Soyeon Shim

*Soyeon Shim, Ph.D.*

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**Acknowledgement:**
This study has been made possible through the generous support of the National Endowment for Financial Education® (NEFE®) and the Citi Foundation. Thank you for your ongoing commitment to this research. With your support, we continue to improve the lives of young people today so they can be self-sufficient adults tomorrow.


**Joyce Serido**
*Assistant Research Professor*
*Co-PI and Project Manager*
*APLUS*

# Executive Summary

In 2007 we launched APLUS, a landmark longitudinal study exploring how young adults develop financial knowledge, attitudes, beliefs and behaviors—the elements of financial capability—and how that development impacts life success as adults. Uncertain economic conditions and increasing individual responsibility for financial security underscore the need for this research.

Our Wave 1 baseline study of 2,098 freshmen enrolled at the University of Arizona culminated in the published Young Adult Model of Financial Well-Being (Shim, Barber, Card, Xiao & Serido, 2009). Next, in the wake of the U.S. credit crisis, our published "Wave 1.5" follow-up examined the immediate effects of economic recession on young adults (Shim & Serido, 2010).

For this current Wave 2 analysis, with support from the Citi Foundation and the National Endowment for Financial Education® (NEFE®), we re-surveyed 72% of the original APLUS participants (1,508) in fall 2010, three years after the baseline survey.

By analyzing the data collected from the same young adults over time, we are able to show how their lives have changed since their transition to college. This unique longitudinal data also allows us to test a Model of Emerging Financial Capability. This model demonstrates young adults' financial decision-making process, and what contributes to that process. Finally, we introduce the concept of financial identity and explore its connection to financial capability.

Download past reports & learn more at the APLUS website aplus.arizona.edu

## Three Standout Findings

### Financial Socialization

Parents play a key socializing role during the college years, helping their young adult children to become financially capable adults. Parents' influence is 1.5 times greater than that of financial education and more than twice that of friends.

### Cumulative Education

When it comes to financial education, ongoing education is critical to better outcomes. Participants with cumulative education know more and report more positive behaviors. We also document a snowball effect, with earlier financial education exponentially increasing the likelihood of later financial education, including informal learning through books, magazines and seminars.

### Followers, Drifters & Pathfinders

APLUS participants cluster into three groups by financial management style:

- Followers: Those who mostly just accept what their parents say is best
- Pathfinders: Those actively building a self-chosen style of financial management
- Drifters: Those who don't follow their parents' style but have no individual approach

Of the three groups, Pathfinders have significantly greater financial capability: they know more about personal finance, have more positive financial attitudes, and make better financial decisions.

## Other Wave 2 Highlights

- More than half of the participants now pass a 15-question true/false financial quiz; what participants know rose 5% but their assessments of how much they know rose 13%

- Despite a small increase in participants seeking more financial education, financial behaviors overall worsened by 7%

- Though participants felt better about their personal money management, their attitudes about finances dropped 7%

- Life events that impact finances—even "negative" events like losing a job—were by and large linked with greater financial capability

- Participants in a marriage or serious relationship jumped from 2% to 47%, and they rated those relationships better than relationships with parents or peers

- 95% of participants expected to graduate although only 21% expected to graduate on time

- 95% of participants named financial independence as important; 22% have achieved it

- Well-being improved in three of the four domains studied: Physical (+9%); psychological (+6%); life satisfaction (+4%). Financial well-being declined 6%.

## Key Demographic Differences

Demographic differences will emerge, persist and even disappear as we continue our longitudinal study. Below are a few of the more pronounced differences related to sex, ethnicity and socioeconomic status (SES) at Wave 2:

- Lower-SES participants had the greatest increase in financial independence: roughly twice that of middle- or higher-SES groups

- Demographic differences in scores on the financial quiz emerged in Wave 2, with men outscoring women (men's average score of 72% vs. women's average score of 68%)

- Men were more likely than women to take formal financial education classes (62% vs. 40%) as well as engage in informal learning (75% vs. 66%) about finances

- White and Latino participants reported improved relationships with their parents while Native American and Asian participants reported declines; relationships were unchanged for Black participants

## APLUS Project Timeline

| 2007-2008 | 2008-2009 | 2009-2010 | 2010-2011 | 2011-2012 | 2012-2013 |
|---|---|---|---|---|---|
| | On Time | | | Late | →At Risk |
| Freshman | Sophomore | Junior | Senior | | |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| | On Time | | | Late | →At Risk |
| Wave 1 Baseline | Wave 1.5 Economic Impact | | Wave 2 Financial Readiness | | Projected Wave 3 |

# Study Design & Participants

When we launched the APLUS study, we wondered how prepared college students were for the dramatic life-changing experiences facing them as they entered college.

Three years and one financial crisis later, we now ask how prepared these same students are for the life-changing experiences ahead, as they enter the world of full-time adult responsibility.

In this report, we examine the changes they have undergone and offer a glimpse into their current level of financial readiness.

## Wave 2 Objectives

Our focus in Wave 2 of the APLUS study is to identify how developmental factors contribute to young adults' financial capability: their ability to make sound personal finance decisions. Specifically, this report will:

1) Describe participants' developmental and circumstantial changes

2) Propose a model of financial capability and its development

3) Examine factors that influence the development of financial capability

4) Introduce the concept of financial identity and examine its relation to financial capability

## Sample Size & Characteristics

In 2010, we invited the original APLUS participants via email to take an online survey similar in size and scope to that of Wave 1. Of the original 2,098 participants, 1,508 (72%) were contacted, responded and completed surveys in full. Wave 2 data is comprised of their responses, including responses from 173 participants who left the UA.

Differences in ethnic makeup between Wave 1 and Wave 2 cohorts were not significant. However, there were three minor but statistically significant differences in the current sample: more women, more in-state participants and more participants from families of higher socioeconomic status.[1]

**Gender:** 63% women, 37% men
Wave 1: 62% women, 38% men

**Residency:** 71% in-state, 28% out-of-state, 1% international
Wave 1: 69% in-state, 29% out-of-state, 2% international

**SES:** 42% Lower-SES; 30% Middle-SES; 28% Higher-SES
Wave 1: 44% Lower SES; 30% Middle SES; 26% Higher SES

**Ethnicity:** 71.4% White; 14.3% Latino; 9.5% Asian; 3.4% Black, 1.4% Native American
Wave 1: 69.9% White; 15.4% Latino; 9.4% Asian; 3.5% Black, 1.9% Native American

*[1]Estimated average annual parental income for lower-, middle- and higher-SES respectively: less than $50K; $50K–150K; greater than $150K.*

# Changing Lives

## APLUS Participants Then & Now

The late teens through the early 20s is a time of significant life changes. The events common in these years—events such as graduating from college, forming romantic relationships, and planning a career—generally lead to changes in daily routines (Dohrenwend & Dohrenwend, 1981), including changes in our financial practices.

Events at this stage of life have traditionally been seen as marking the passage into adulthood, but it's also true that they occur less predictably today than in decades past. As a result, declaring oneself an adult today may have more to do with self-perception than with social milestones (Arnett, 2004).

Indeed, being able to manage the increasing demands of multiple social roles becomes an important measure of maturity as young adults take on more responsibility for planning and living the lives they choose (Eccles, Templeton, Barber, & Stone, 2003).

Together these elements play key roles in personal development: distance between children and parents grows, young people develop different relationships within their peer groups, their work lives and academic lives change, all impacting how they see themselves.

> Job changes were the most common finance-related life event, with more than half the participants reporting a new job or promotion for themselves and nearly a fourth reporting one for a parent. 95 students said a bank had closed their checking accounts within the prior six months.

Because these changes in the passage to adulthood can impact financial knowledge, self-awareness and behaviors—collectively financial capability—we looked at how these factors developed among APLUS participants during the three years since our Wave 1 data collection.

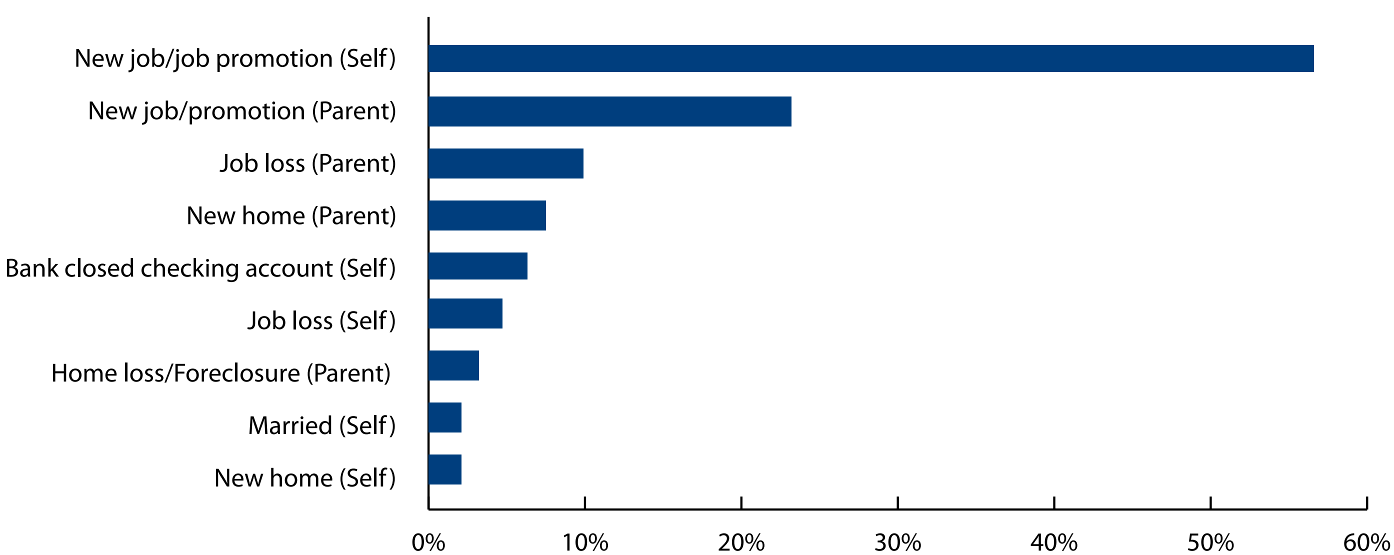
### Life Events

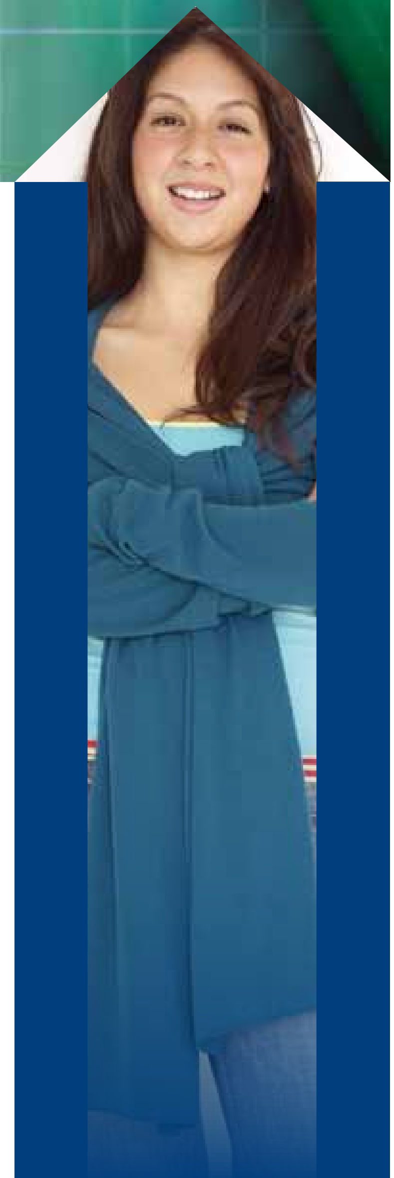
Events common in the college years can have a dramatic impact on finances. This is true of any era and more likely in the aftermath of severe economic events such as the financial meltdown of 2008 and the continuing global recession. We asked participants about nine such events, including four questions about events in their parents' lives, to see if they had occurred in the previous year.

#### Life Events at Wave 2

- Most common event: Participant getting a new job or promotion (57%)
- Least common event: Participant buying a home (2%)
- Median event: Participant having a bank close an account in the past 6 months (6.3%)

### Figure 1: Recent Financial Life Events





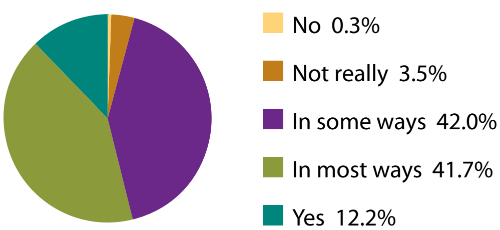
## Social Relationships

Social relationships are a critical factor in positive development during the college years, increasing well-being (Demir, 2010) and minimizing distress (Eshbaugh, 2010). Overall, participants reported little change in the quality of peer relationships. That may be, in part, due to friendships now taking a back seat to romantic relationships (Eccles et al., 2003).

### Social Relationships at Wave 2

- Men's friendship ratings decreased slightly, bringing them on par with women's
- Participants in a marriage or serious relationship jumped from 2% to 47%
- They rated these relationships better than those with parents or peers: 4.45 on a scale of 1 to 5

## Figure 2: Status as Adults




## Becoming an Adult

Finally, as noted above, declaring oneself "adult" today has more to do with self-perception than with objective milestones of years past such as marriage or buying a home (Arnett, 2004). That observation is borne out in our data with the number of participants feeling closer to adulthood far outstripping the number experiencing life events once considered markers of maturity.

### Progress towards Adulthood at Wave 2

- More than 95% of participants felt they were progressing towards adulthood
- Men and lower-SES participants rated themselves more adult on average

## Financial Independence

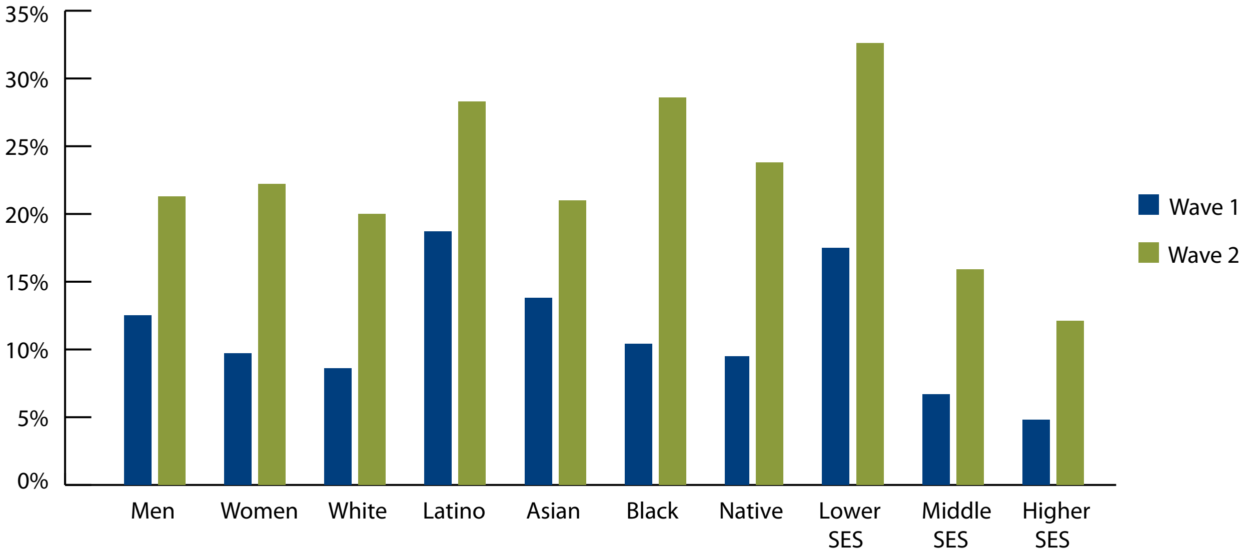
As they learn to independently navigate increasing academic, social and financial demands, young people today must also become financially self-sufficient in an economic climate that requires more individual responsibility for financial well-being than ever before (Everett & Grogan, 2009).

### Financial Independence at Wave 2

- More participants reported not being claimed as dependents: (22%), double the percentage from Wave 1
- Financial independence was still significantly more common, and rose at a higher rate, among lower-SES participants
- 95% of participants said financial independence was an important goal
- 96% planned to achieve financial independence within 10 years

APLUS participants overwhelmingly indicated that they were progressing towards adulthood in "some" or "most" ways.

## Figure 3: Increases in Financial Independence




## Financial Parenting

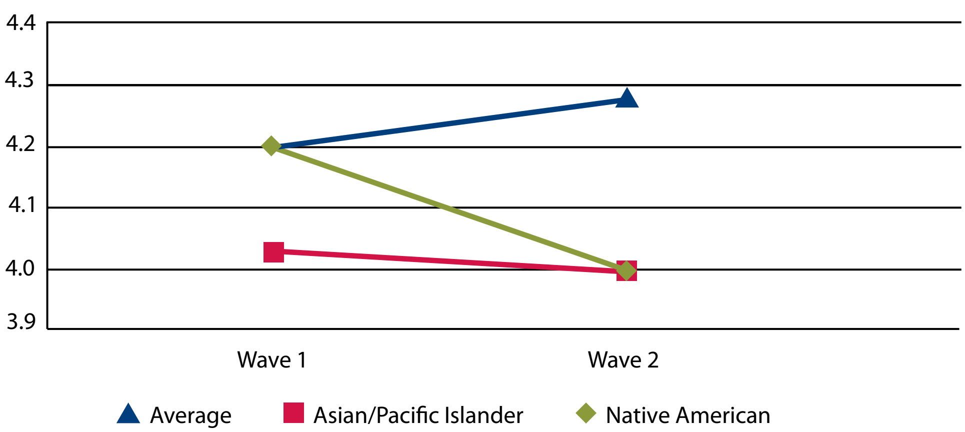
Close relationships between young adults and their parents facilitate transition to adulthood (Hair, Moore, Garrett, Ling & Cleveland, 2008). In Wave 1 we found that parents were important in the financial socialization of young adults, more than financial education and work experience combined.

For these reasons, and because we define financial independence in the context of the parent-child relationship, we again asked participants about the quality of their relationships with their parents (see Table 1) and elements of those relationships specific to finances.

### Quality of Parent-Child Relations at Wave 2

- Overall, participants indicated high-quality relationships, up to 4.28 from 4.19 on a scale of 1 to 5
- Asian and Native American participants reported small declines
- Lower-SES participants indicated lower-quality relationships, consistent with Wave 1

## Figure 4: Change in Relationship Quality with Parents




More participants in the lowest SES tertile reported financial independence in both Waves 1 and 2, suggesting that while most young adults say they value financial independence as a goal, achieving that independence in these years may have more to do with their parents' financial resources.

Despite declines in two ethnic groups, on average participants indicated that their relationships with their parents have improved and all still see those relationships as better than "very good."

## Table 1. Changes in Relationship Quality

| | | GENDER | | ETHNIC GROUP | | | | | SES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average | Men | Women | White | Latino | Asian / Pacific Islander | Black | Native American | Lower | Middle | Higher |
| Relationship with Parents | | | | | | | | | | | |
| Wave 1 | 4.19 | 4.19 | 4.23 | 4.25 | 4.10 | 4.02 | 4.00 | 4.19 | 4.07[b] | 4.27[a] | 4.30[a] |
| Wave 2 | 4.28* | 4.28 | 4.28 | 4.33[a] | 4.34[a] | 3.99[b] | 4.02 | 4.00 | 4.16[b] | 4.36[a] | 4.39[a] |
| Relationship with Peers | | | | | | | | | | | |
| Wave 1 | 4.15 | 4.22* | 4.11 | 4.23[a] | 4.09 | 3.99[b] | 3.86 | 3.86 | 4.02[b] | 4.24[a] | 4.26[a] |
| Wave 2 | 4.16 | 4.15 | 4.17 | 4.25[a] | 4.06 | 3.88[b] | 3.96 | 3.76 | 4.06[b] | 4.23[a] | 4.25[a] |

*Note: asterisk (*) indicates significant wave and gender differences; letters ([a,b]) indicate significant ethnic and SES differences*

Beyond the quality of relationships, we also wanted to know about how those relationships were changing in nature—specifically, how financial parenting had changed.

The term "financial parenting" encompasses a wide range of behaviors—direct and indirect—by which parents help shape their children's financial knowledge, attitudes and behaviors (Serido, Shim, Mishra & Tang, 2010). As in Wave 1, we asked participants about their perception of three elements:

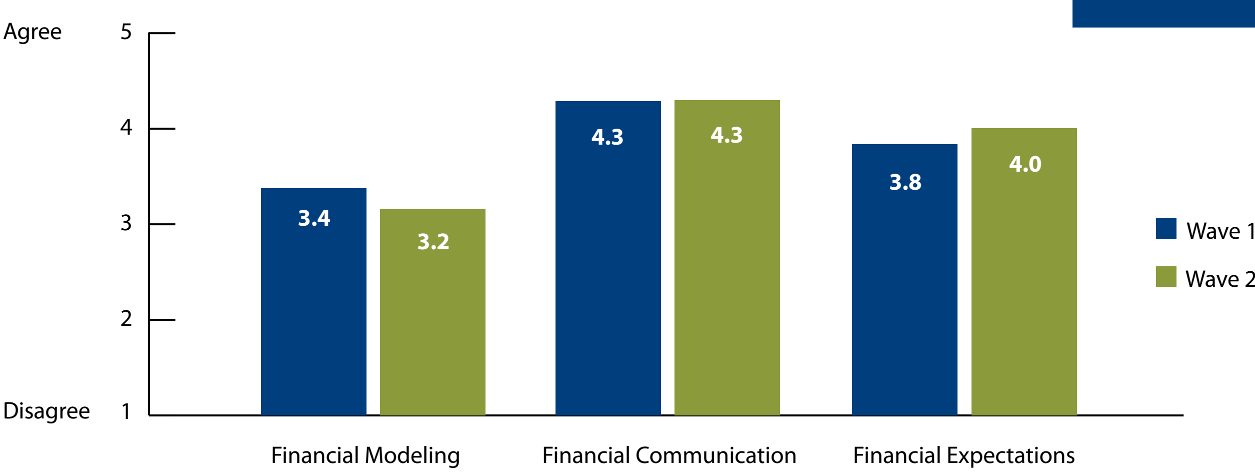
- Financial role modeling—the extent to which parents' modeled financial behaviors (Shim et al., 2009)
- Financial expectations—parents' expectations for responsible financial behaviors such as tracking expenses, sticking to a budget and paying credit card balances in full each month (Shim et al., 2009).
- Financial communications—specifically the quality of parents' communications about financial issues (Allen, Edwards, Hayhoe & Leach, 2007)

### Financial Parenting at Wave 2

- Participants perceived no change in financial communications with their parents
- However, they indicated financial role modeling had decreased (down 7%)
- At the same time, participants felt their parents had increased expectations of them (up 4%)

Participants indicated modest changes in what we call "financial parenting," reporting less role modeling even as they felt expectations increase.

## Figure 5: Changes in Financial Parenting



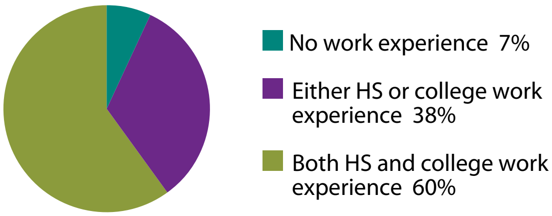
## Work Experience & Financial Education

In addition to financial parenting, Wave 1 of the APLUS study revealed that two other types of financial socialization in the years before college—work experience and financial education—played an important role in promoting responsible financial behavior (Shim et al., 2009).

### Work Experience at Wave 2

- 64% of the participants were working, up from 35% at Wave 1
- 93% had worked either in high school or college (with 60% having worked during both)
- More women (68%) compared to men (58%) and more lower-SES (67%) and middle-SES participants (68%) compared to higher-SES participants (56%) were working now

### Figure 6: Changes in Work Experience




By Wave 2, more participants were working and only 7% had acquired no work experience at all.

### Table 2. Changes in Work Experience

| | | GENDER | | ETHNIC GROUP | | | | | SES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average | Men | Women | White | Latino | Asian / Pacific Islander | Black | Native American | Lower | Middle | Higher |
| Wave 1 | 35% | 35% | 36% | 34% | 48% | 27% | 32% | 15% | 44% | 35% | 23% |
| Wave 2 | 64%* | 58% | 68%* | 63% | 72% | 59% | 69% | 48% | 67%[a] | 68%[a] | 56%[b] |

*Note: asterisk (*) indicates significant wave and gender differences; letters ([a,b]) indicate significant SES differences*

### Financial Education at Wave 2

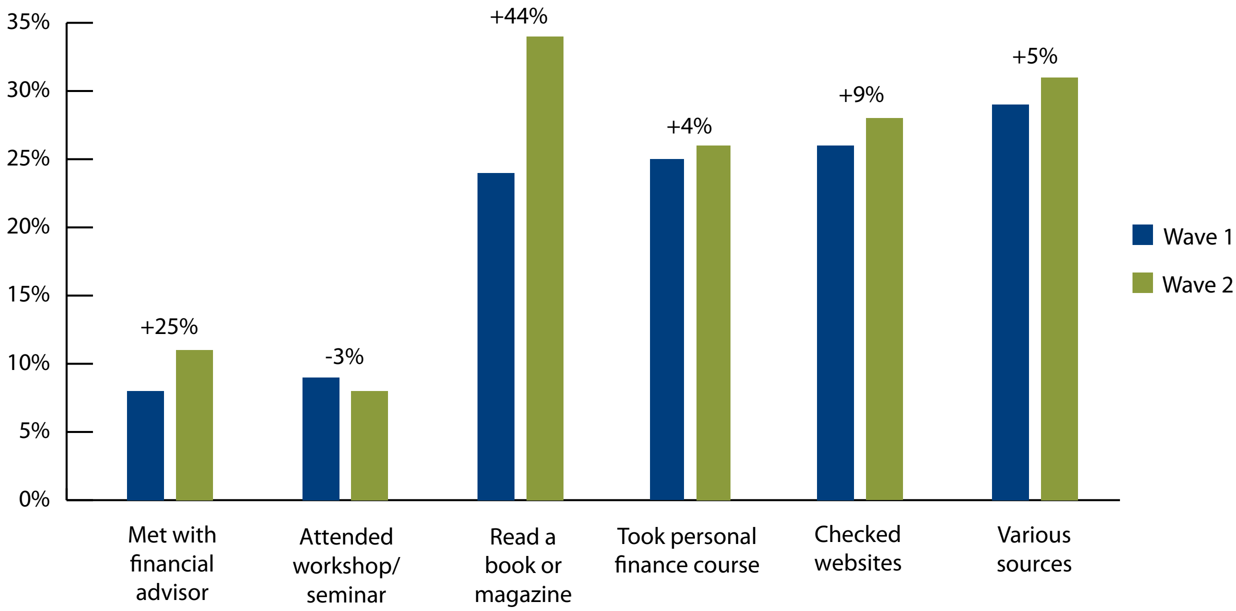
- 21% more participants were engaged in learning about finances (75% at Wave 2 compared to 62% at Wave 1)
- Nearly half (44%) had read a book or magazine about finances
- Across six educational activities, only seminar/workshop attendance decreased slightly
- More men, compared to women, took formal classes (62% vs. 40%) and engaged in informal financial education (75% vs. 66%)
- More middle- (72%) and higher-SES participants (72%) engaged in informal education compared to lower-SES participants (66%)

### Table 3. Wave 2 Participation in Financial Education

| | | GENDER | | ETHNIC GROUP | | | | | SES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average | Men | Women | White | Latino | Asian / Pacific Islander | Black | Native American | Lower | Middle | Higher |
| Formal | 48% | 62%* | 40% | 52% | 46% | 49% | 53% | 47% | 46% | 46% | 53% |
| Informal | 69% | 75%* | 66% | 57% | 56% | 59% | 65% | 72% | 66%[b] | 72%[a] | 72%[a] |

*Note: asterisk (*) indicates significant gender differences; letters ([a,b]) indicate significant SES differences*

## Figure 7: Changes in Financial Learning




By Wave 2 participants had become more active in their financial education, with positive change in five of six activities and significant increases in reading and meeting with financial advisors.

Our findings related to graduation plans are consistent with published national findings from the Institute of Education Sciences (2009).

## Academic Achievement

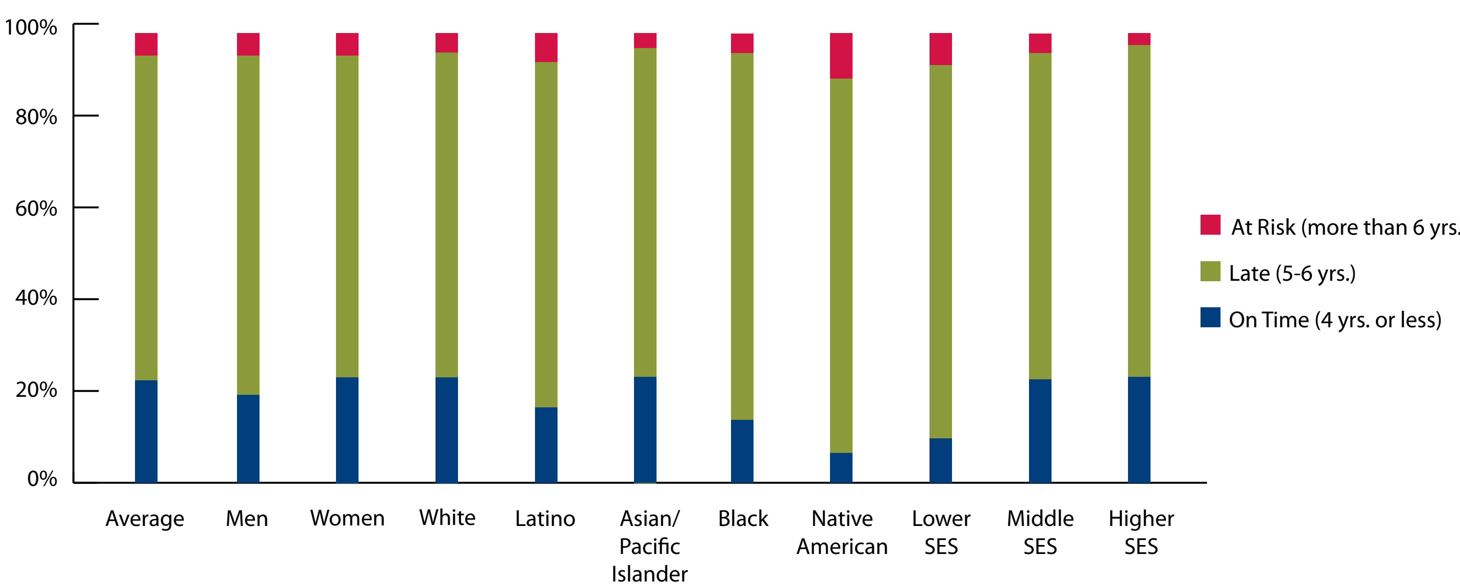
Statistically speaking, a college education carries a number of personal and financial benefits, including increased earnings and greater career achievement (Baum, Ma & Payea, 2010).

Thus, the key marker of academic achievement for this age group is earning a baccalaureate degree. For this measure, we asked when participants planned to graduate: on time (4 years or less), late (5-6 years), or at risk (more than 6 years) (see APLUS Project Timeline, p. 5).

### Graduation Plans at Wave 2

- 21% of participants expected to graduate on time
- 74% expected to graduate late
- Ethnic minority and lower-SES participants were most at risk for not graduating
- Of all groups, Native Americans were least likely to graduate on time and most at risk

## Figure 8: Progress Toward Graduation



## Well-Being Rebounds

Given the decline in several aspects of well-being in the Wave 1.5 APLUS sample surveyed shortly after the financial crisis (Shim & Serido, 2010), we were especially interested in knowing if feelings of well-being had rebounded among the participants at Wave 2.

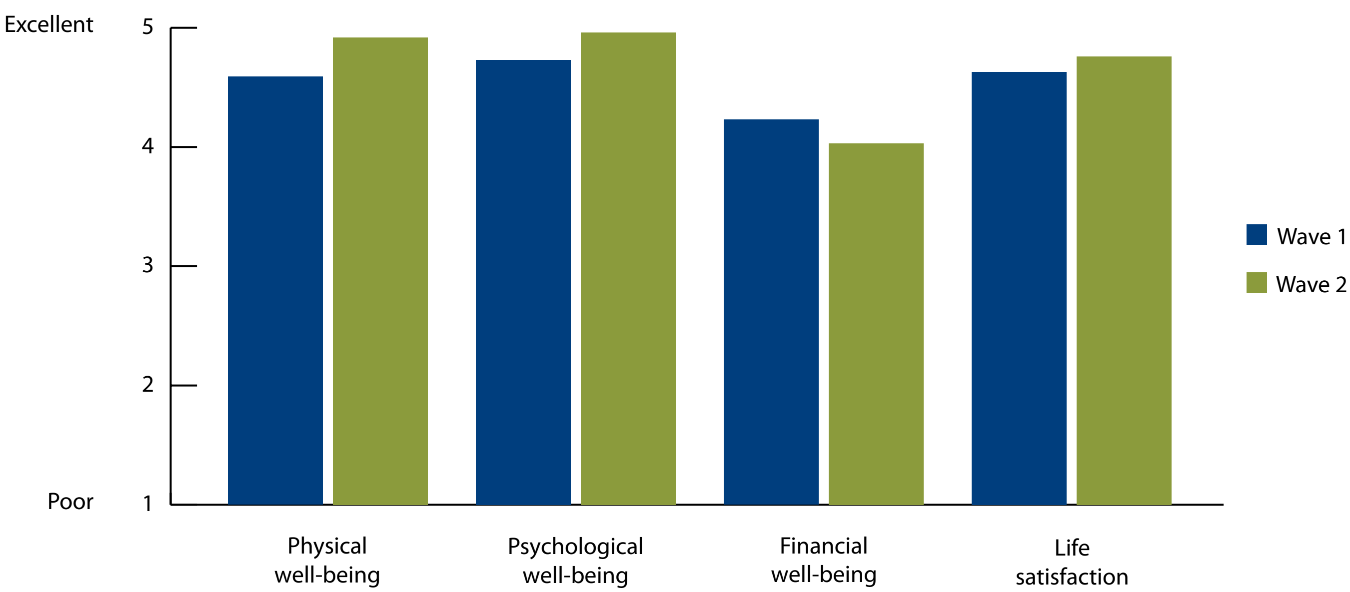
We compared participants' well-being at Wave 2 to that of Wave 1 on a scale of 1 to 5 in four distinct realms: physical, psychological, financial and overall life satisfaction.

### Well-Being at Wave 2

- 9% increase in physical well-being
- 6% increase in psychological well-being
- 6% decrease in financial well-being
- 4% increase in life satisfaction

After drops in well-being between Waves 1 and 1.5, participants now reported increases in all areas except financial well-being, which was also the only dimension rated below the mid-point.

## Figure 9: Changes in Well-Being



# Financial Literacy & Education

Three years ago, in analyzing data from Wave 1, we were very interested in financial literacy: how much did participants know, how much did they think they know and how was financial literacy related to financial behaviors?

In the college years, young adults have more opportunities to learn about personal finance. In addition to formal classes and seminars, they also repeat certain financial activities throughout the year, e.g. paying tuition, getting a credit card bill or buying groceries.

Research shows that this kind of repeated exposure to financial activities builds knowledge (Jorgensen & Savla, 2010).

## Financial Knowledge & Financial Behavior

Consistent with our Wave 1 model of positive financial socialization (Shim et al., 2009), we included two measures of financial knowledge in Wave 2:

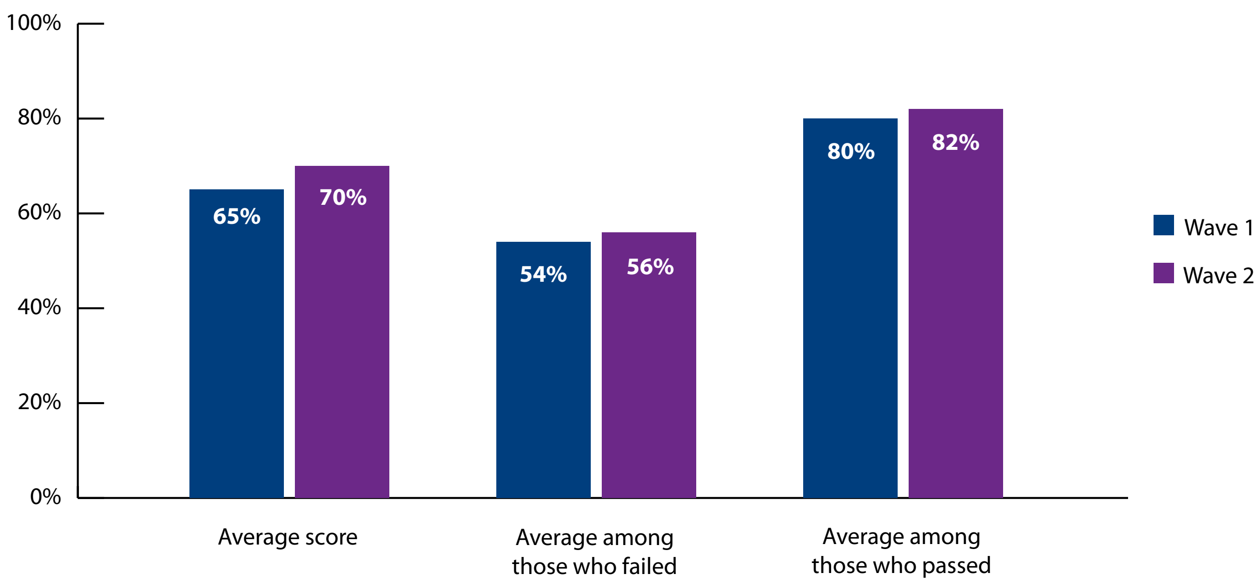
- Objective Knowledge—performance on a 15-question true/false financial quiz
- Subjective Knowledge—participants' beliefs about how knowledgeable they were on a scale from 1 to 5

### Financial Knowledge at Wave 2

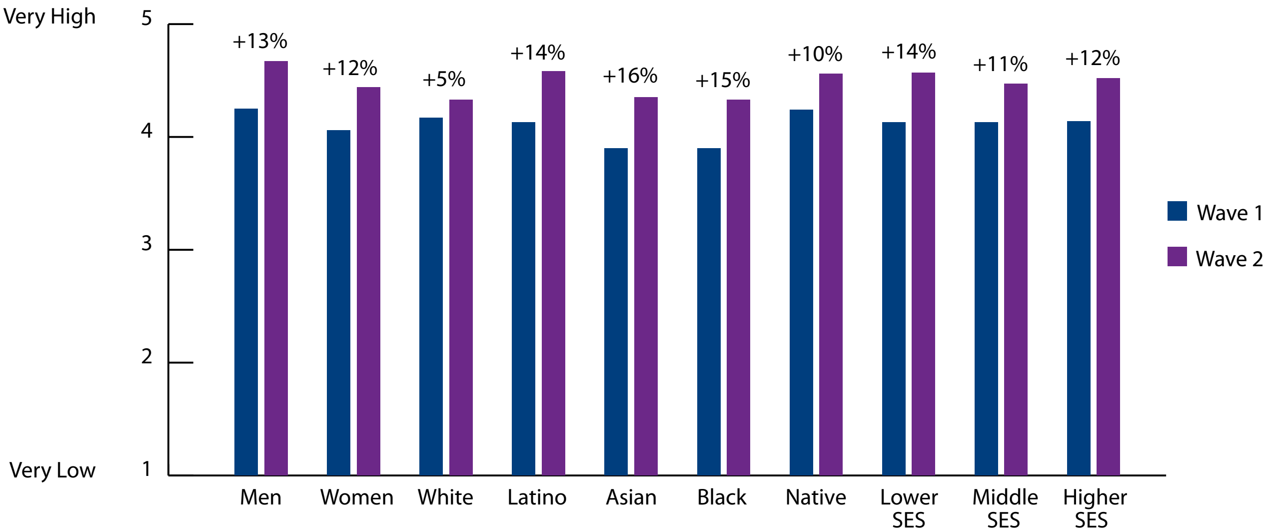
- Objective knowledge rose 5% overall, with 52% of participants now passing the quiz
- Subjectively, participants rated their knowledge moderately high: up 13%
- Men were more likely to pass the quiz (57% vs. 49% of women) and rated their knowledge higher (3.7 vs. 3.4 for women)
- There were no SES differences in either objective or subjective knowledge

Participants did better on a 15-question true/false test, with even those who "failed" doing better now than at Wave 1.

### Figure 10: Changes in Objective Financial Knowledge



## Figure 11: Changes in Subjective Knowledge




To measure behavior, we asked participants how often they had engaged in six different activities in the past six months on a scale of 1 to 5.

### Financial Behavior at Wave 2

- Overall, financial behaviors worsened: down 7%, with equal declines across all groups
- Deterioration was worst in saving and investing behaviors: down 11% and 15%
- Only one behavior improved: learning about finances, up 3%
- Lower-SES participants' financial behaviors continued to be less positive than higher-SES participants

At the same time, participants in every demographic group assessed their level of financial knowledge considerably higher, up 13% from Wave 1 overall.

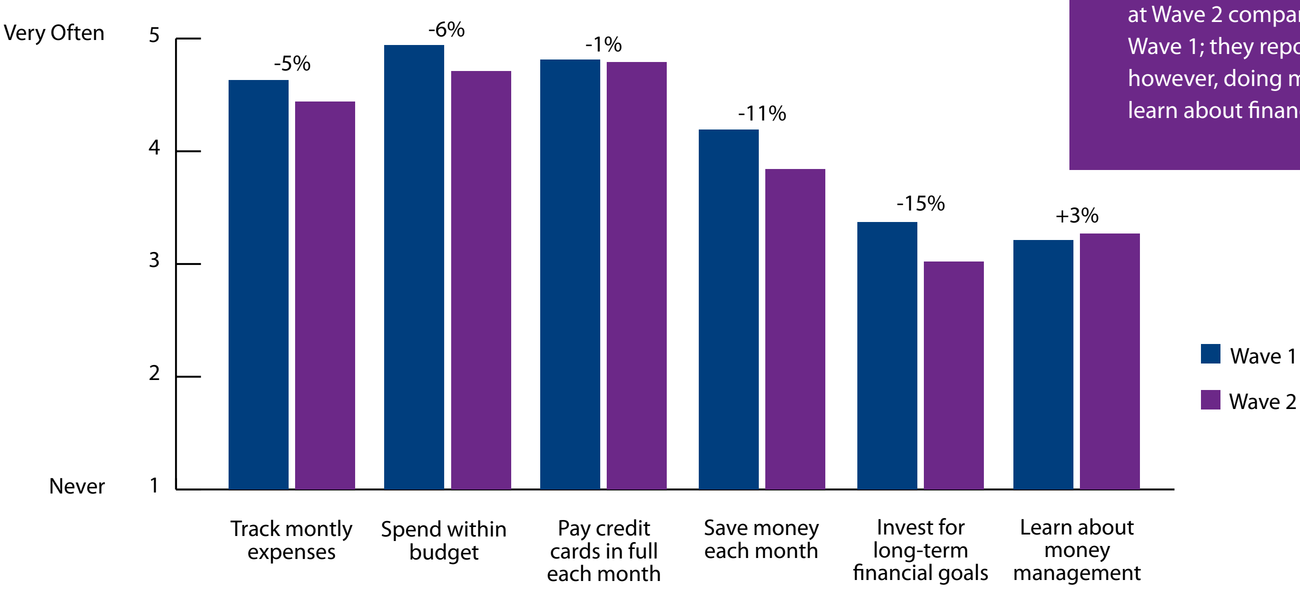
## Table 4. Change in Positive Financial Behavior

| | | GENDER | | ETHNIC GROUP | | | | | SES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average | Men | Women | White | Latino | Asian / Pacific Islander | Black | Native American | Lower | Middle | Higher |
| Wave 1 | 3.18 | 3.24* | 3.14 | 3.21 | 3.10 | 3.15 | 3.01 | 2.92 | 3.11[b] | 3.20 | 3.26[a] |
| Wave 2 | 2.98* | 3.03* | 2.94 | 2.98 | 2.91 | 3.09 | 2.73 | 2.61 | 2.91[a] | 3.00 | 3.04[b] |

*Note: asterisk (*) indicates significant wave and gender differences; letters (a,b) indicate significant SES differences*

Based on self-report, participants were acting less financially responsible at Wave 2 compared to Wave 1; they reported, however, doing more to learn about finances.

## Figure 12: Changes in Financial Behavior



## Cumulative Financial Education

The overall increase in financial knowledge and the overall decline in financial behaviors prompted us to also look at the impact of the amount of financial education on both financial knowledge and financial behavior, asking three questions:

• Does high school financial education predispose students to further financial learning?
• Does ongoing financial education improve objective knowledge?
• Does ongoing financial education improve financial behavior?

Looking back at Wave 1, we learned that high school financial education was prevalent among participants:

• Most reported some kind of early formal financial education
• 74% reported having already taken at least one formal course
• 28% reported taking a seminar or workshop while in high school

They continued their financial education during the first year of college:

• 55% engaged in some form of informal financial learning experience
• 25% took a formal financial education course
• 70% had informal financial education by their fourth year in college
• 48% took a formal course in economics or personal finance in that time

Based on our Wave 2 data, the answer to our three questions is "Yes."

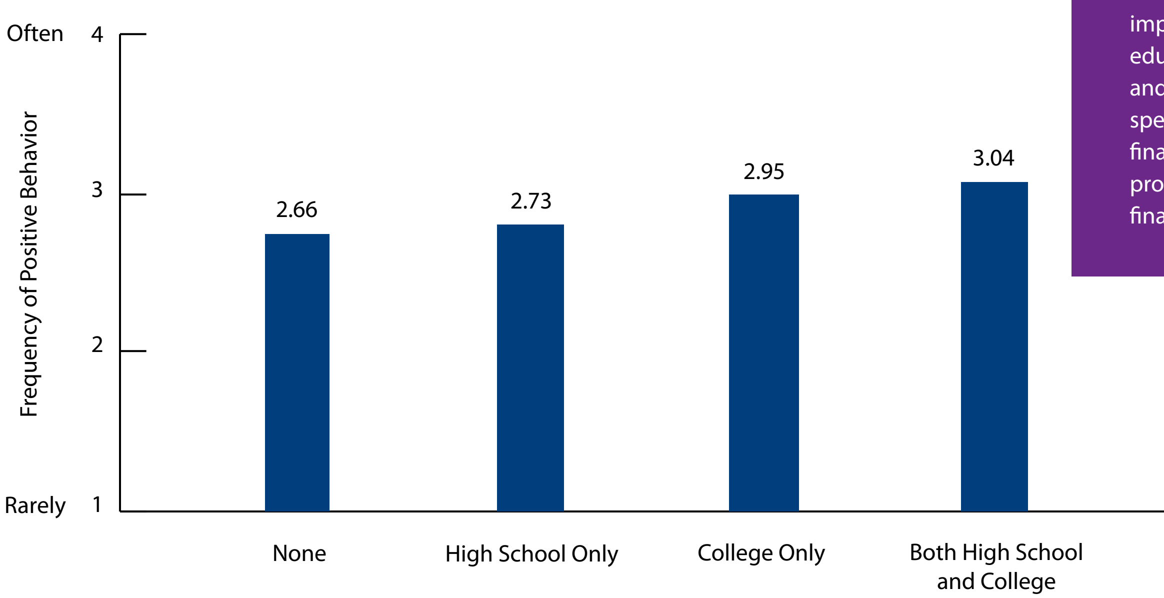
**High school financial education does predispose students to further learning.** In fact, it accounted for 54% of variance in who engaged in financial education during the first year of college. We identified a snowball effect, with financial education in the first year of college then accounting for 73% of variance in who engaged in financial education during college years two and three.

**Ongoing financial education does improve financial knowledge.** Financial education in high school drove a 1% increase in objective financial knowledge. Adding more education during the first year of college adds another 1% bump. Then adding more education in years two and three drives a dramatic 6% increase.

**Finally, ongoing financial education drives increasingly responsible financial behavior.** To illustrate the links, we generated average behavior scores based on how often participants engaged in responsible financial behaviors, then plotted those averages by exposure to financial education.

As the chart shows, participants who continued to learn about personal finances over time had more responsible financial behaviors compared to other groups.

### Figure 13: Impact of Cumulative Financial Learning on Behavior




This standout finding demonstrates the importance of financial education—both formal and informal—and, more specifically, cumulative financial education in promoting more positive financial outcomes.

# Financial Capability

## Connecting Knowledge, Awareness & Behavior

Financial literacy remains important today, when our shifting economic landscape makes it critical for all individuals to take responsibility for their personal finances even as financial rules and regulations change and financial services grow ever more complex.

Still, with many of the APLUS participants having lived away from home, gotten jobs, opened (and had closed) bank accounts—at a time when our participants are making many more financial choices and are independently engaged in more financial activities—we shift our focus accordingly from financial literacy to a more relevant and more sophisticated concept: financial capability.

### What is Financial Capability?

Scholars, policy makers and educators recently introduced the concept of "financial capability" to describe a person's ability to successfully manage personal financial demands (Remund, 2010).

The National Financial Capability Study (FINRA Investor Education Foundation, 2009) defines it as "multiple aspects of behavior" related to how individuals manage resources and make financial decisions (p. 9). It has also been defined as the "knowledge, ability and opportunity to act in ways that maximize life chances and enable fulfilling lives" (Johnson & Sherraden, 2007, p. 122).

While improving financial knowledge alone is not enough to improve financial behavior (Remund, 2010), it is the starting point. Indeed, our findings demonstrate that, although related, changes in knowledge and behavior are not uniform.

Therefore, taking a developmental perspective, we recognize that our participants are becoming more self-sustaining on their paths to adulthood. With that maturity comes increasing awareness of one's values, attitudes and abilities.

We believe that this awareness—the consciousness that one has abilities and attitudes—joins knowledge and behavior as a critical third factor in a dynamic process to promote financial capability.

### Measuring Awareness: Efficacy, Control & Attitudes

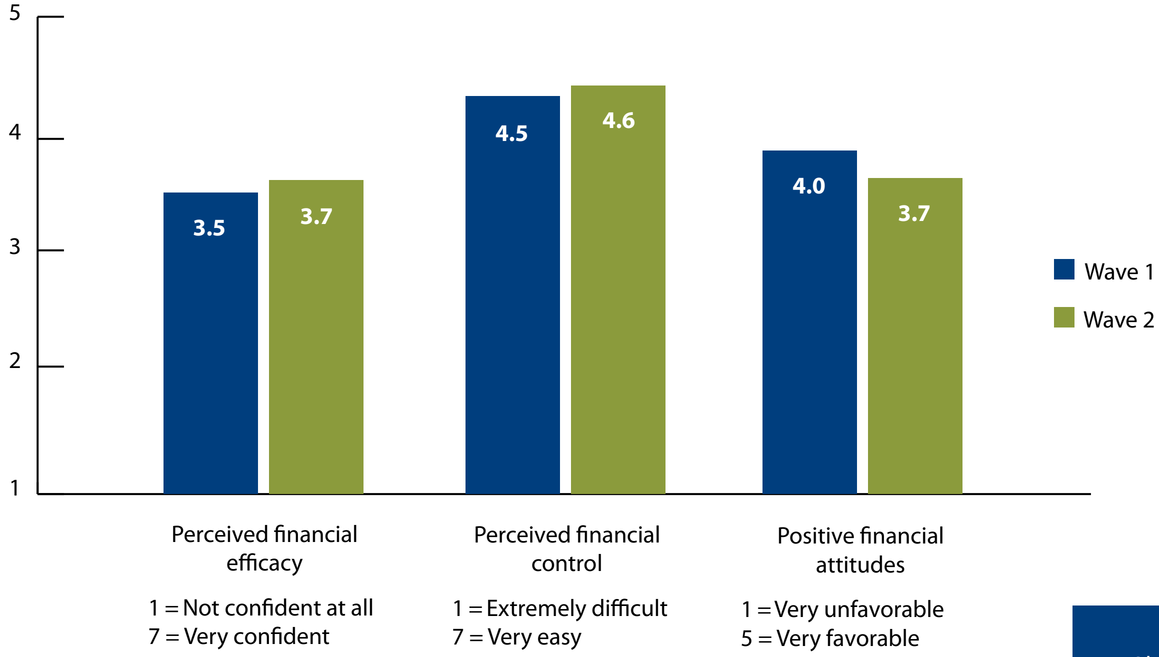
Our working definition for financial self-awareness includes three elements, measured at both Waves 1 and 2 by participants' attitudes and beliefs about themselves on Likert scales:

- Efficacy—Self-rated ability to manage one's finances
- Control—Self-rated ability to stick to a financial plan given known constraints
- Attitudes—Feelings about behaviors such as investing, tracking expenses, etc.

While we did not report extensively on these three measures in Wave 1 of the APLUS study, repeating the measures at Wave 2 adds to our understanding of the financial pathways young people move along as they mature.

We found that in the three years since Wave 1, these measures increased overall, although participants had slightly more negative attitudes.

## Figure 14: Changes in Financial Self-Awareness




Although participants expressed worse attitudes towards responsible financial behaviors, they also indicated feeling more financial efficacy and self-control than at Wave 1.

### Efficacy at Wave 2

- Participants believed they had greater efficacy: a 4% increase from Wave 1
- SES differences emerged, with lower-SES participants rating their efficacy higher
- Ethnic group differences disappeared
- Men's self-ratings were higher than women's, consistent with Wave 1

## Table 5. Group Differences in Financial Self-Awareness

| | | GENDER | | ETHNIC GROUP | | | | | SES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average | Men | Women | White | Latino | Asian / Pacific Islander | Black | Native American | Lower | Middle | Higher |
| **Perceived financial self-efficacy** | | | | | | | | | | | |
| Wave 1 | 3.52 | 3.66* | 3.39 | 3.52[a] | 3.56[a] | 3.20[b] | 3.3 | 3.52 | 3.54 | 3.46 | 3.44 |
| Wave 2 | 3.65* | 3.82* | 3.55 | 3.65 | 3.73 | 3.54 | 3.52 | 3.39 | 3.74[a] | 3.59[b] | 3.57[b] |
| **Perceived financial control** | | | | | | | | | | | |
| Wave 1 | 4.53 | 4.55 | 4.46 | 4.56 | 4.43 | 4.38 | 4.00 | 4.55 | 4.47 | 4.49 | 4.56 |
| Wave 2 | 4.64* | 4.62 | 4.65 | 4.67 | 4.74 | 4.49 | 4.25 | 3.83 | 4.65 | 4.65 | 4.62 |
| **Positive financial attitudes** | | | | | | | | | | | |
| Wave 1 | 3.96 | 3.96 | 3.96 | 3.97 | 3.97 | 3.92 | 3.87 | 3.7 | 3.90[b] | 3.99 | 4.02[a] |
| Wave 2 | 3.69* | 3.67 | 3.71 | 3.71 | 3.62 | 3.76 | 3.44 | 3.35 | 3.65 | 3.72 | 3.73 |

*Note: asterisk (*) indicates significant wave and gender differences; letters ([a,b]) indicate significant ethnic and SES differences*

### Control at Wave 2

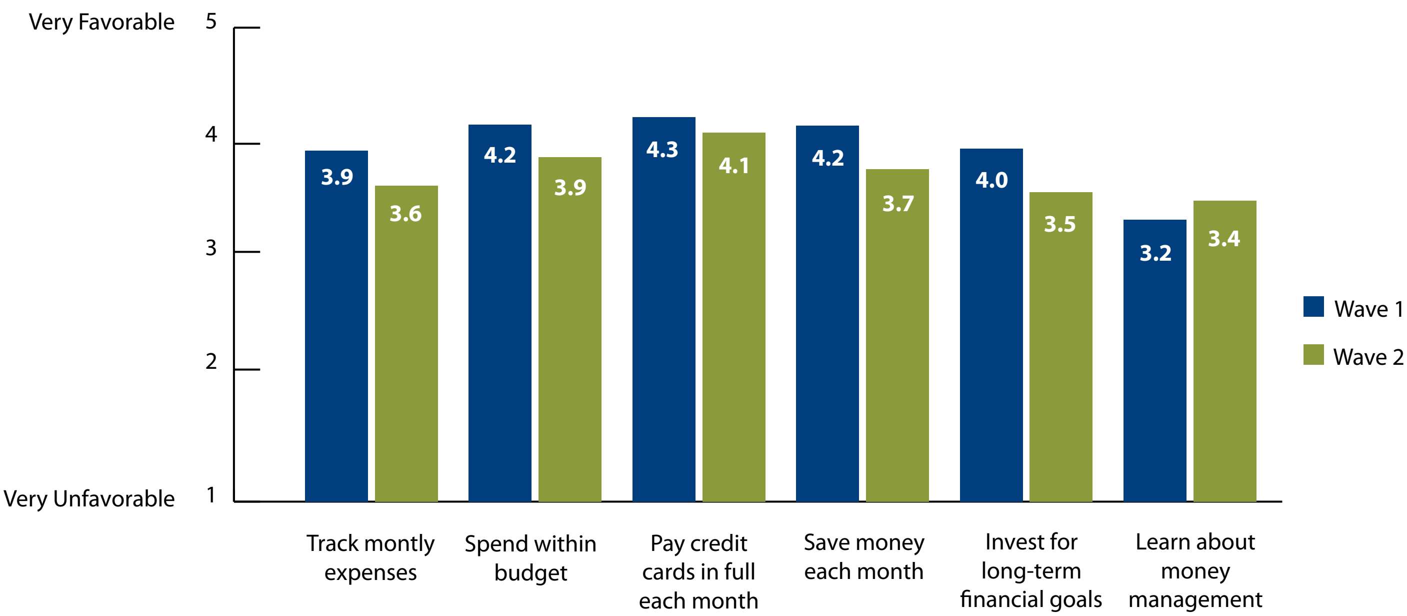
- Participants believed they had more financial control: a 2% increase from Wave 1
- We found no group differences in self-assessed control, consistent with Wave 1

### Attitudes at Wave 2

Note: For this measure, participants were asked about attitudes towards financial behaviors like tracking expenses or investing.

- Participants held more negative attitudes: down 7% overall
- Sharpest declines were in attitudes towards saving and investing: down 11% and 12%
- The one increase was in attitudes towards learning more about finances: up 6%

## Figure 15: Changes in Financial Attitude




## Connecting the Links: A Model for Developing Capability

If we are to understand the pathways to life success—the concept inherent in the purpose of this longitudinal study—it is not enough to simply observe that a collection of variables change. Instead, we must dig deeper to understand how changes in these elements combine to shape individual developmental paths for our participants.

We conceptualized a model in which financial awareness links financial knowledge and financial behaviors to promote financial capability and used the Wave 1 and Wave 2 data to test the model.

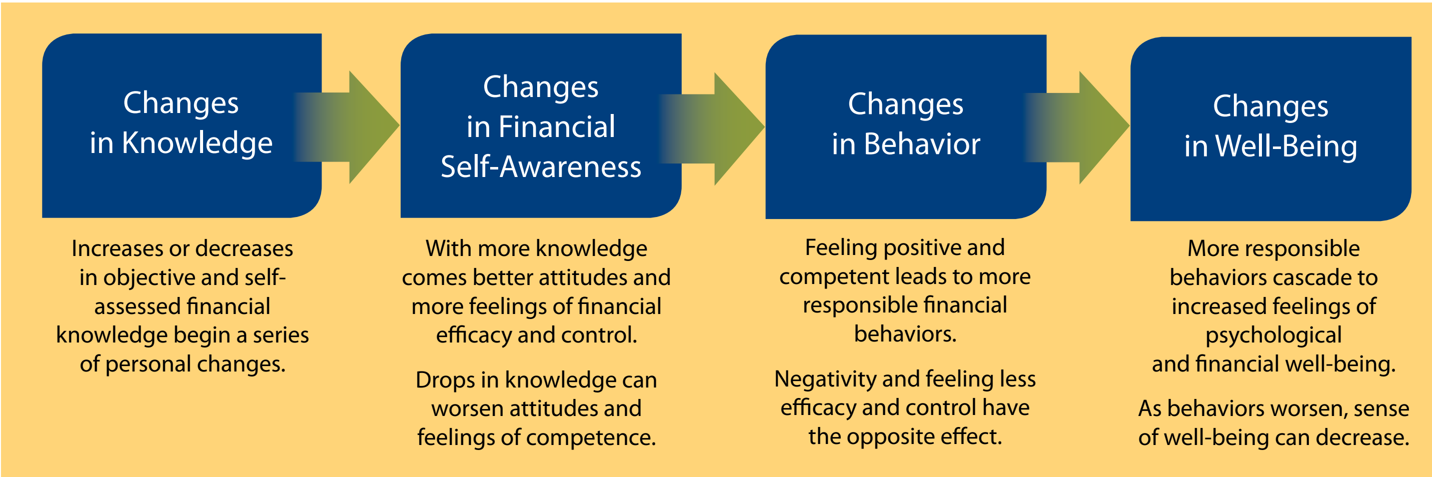
From this perspective, improvements in what we know (and believe we know) about personal finance contribute to improvements in attitudes and beliefs about how to manage our finances. As awareness of our financial efficacy, control and attitudes grows, we make changes in our financial behaviors—changes which improve our financial and overall well-being.

As shown in the sections that follow, analysis of change between Wave 1 and Wave 2 data supports the connections proposed in this model; that is, participants who increased their financial knowledge increased their financial awareness, which improved their financial behavior and led to greater well-being.

Although we focus on the positive trajectory, the model also shows us that decreased financial knowledge relates to decreased financial awareness, declines in financial behavior and reduced well-being.

The pattern of participants' attitudes towards financial behaviors matched their actual behaviors: down except when it comes to learning more about finances.

## Figure 16: Model of Emerging Financial Capability among Young Adults[1]




[1] *The statistical results for the full Structured Equation Model are available upon request*

### Knowledge & Awareness

To test our model for the development of financial capability, we examined the relationship between changes in knowledge and awareness—that is, participants' beliefs about their financial efficacy and control and financial attitudes—and found that both objective and subjective knowledge were important but in different ways:

- An increase in objective knowledge was linked to greater feelings of financial control
- An increase in subjective knowledge was linked to greater feelings of efficacy and control and more positive attitudes
- Most importantly, the relative links between changes in subjective knowledge and changes in awareness were 17 times greater than the links between objective knowledge and awareness.

### Self-Awareness & Financial Behavior

To continue testing our model of the development of financial capability, we examined changes in self-awareness as antecedent to changes in behavior—that is, how self-awareness is reflected or not in financial practices—and found links between behavior and all three elements of awareness:

- Improved beliefs about one's efficacy were linked to improved behaviors
- Improved beliefs about one's financial control were linked to improved behaviors
- Improved financial attitude overall was the strongest predictor of improved behavior
- Improved subjective knowledge also directly improved financial behaviors

### Financial Capability & Well-Being

Because we contend that greater financial capability is a pathway to life success, we concluded testing the model by examining the association between financial capability and well-being—that is, how knowledge, self-awareness and behavior contribute to financial and overall well-being:

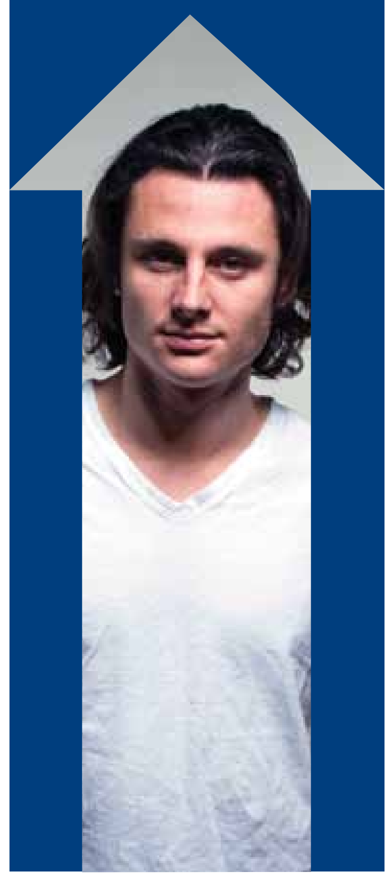
- Improved beliefs about one's financial control were linked to improved financial well-being
- Improved beliefs about one's efficacy were linked to improved financial well-being
- Improved behaviors were linked to improved financial and overall well-being

## Helpers & Hurdles: What Else Impacts Financial Capability?

As noted earlier, our research seeks to understand the links between developmental changes over time and changes in financial capability.

Thus, to better understand the processes through which college students become financially capable, we looked at changes in socialization and the occurrence of various life events to see if they acted as helpers or hurdles towards developing greater financial capability. Notable effects surfaced with respect to relationships with parents, friends and ongoing financial education.

Because longitudinal data allows us to examine how our participants change over time, we tested a model wherein changes in knowledge drive changes in attitudes and beliefs about personal financial management, which in turn drive financial behaviors linked to well-being.



## Table 6. Contributing Factors to Changes in Financial Capability

| | Financial Capability | | | | | |
|---|---|---|---|---|---|---|
| | Knowledge | | Self-Awareness | | | Behavior |
| | Objective financial knowledge | Subjective financial knowledge | Perceived financial efficacy | Perceived financial control | Positive financial attitudes | Positive financial behaviors |
| CHANGE IN SOCIALIZATION [1] | | | | | | |
| Parental Modeling | - | + | | | | + |
| Parental Communication | | + | + | + | + | + |
| Parental Expectation | + | | | | + | + |
| Friends' Behaviors | | | | | + | + |
| Work Experiences | | | | | | |
| Formal Financial Education | | + | + | | | + |
| Informal Financial Education | + | + | | | + | + |
| FINANCIAL LIFE EVENTS [2] | | | | | | |
| Got a new job/job promotion | | + | | | | + (trend) |
| Purchased a home (self) | | + | | | | |
| Fired or laid off from job (self) | + | | | | | |
| Got married (self) | | | + | | | |
| Bank closed checking account | - | | - (trend) | | | |
| Fired or laid off from job (parents) | | + (trend) | | | | |
| Got a new job/promotion (parents) | | | | | | |
| Loss of home / foreclosure (parents) | | + (trend) | | + | | + |
| Purchased new home (parents) | - | | | | | |

[1]The statistical results for the full Structured Equation Model are available upon request.

[2]The statistical results for the OLS regression model are available upon request.

### How Parents Impact Financial Capability

As in Wave 1, parents continued to play a significant role in the financial capability of the participants. Positive changes in financial socialization overall were linked with positive changes in financial capability.

The connection was most significant with respect to parental communications. Parental communications—discussions between parents and their children about financial matters—may be especially important in furthering financial capability among young adults.

### How Friends Impact Financial Capability

Although not a significant socializing influence in Wave 1, changes in friends' financial behaviors contributed to participants' financial capability, although to a lesser extent than did parents' financial behaviors. As their friends' financial behaviors improved, so too did the financial attitudes and behaviors of the participants.

### How Life Events Impact Financial Capability

With one exception, the life events covered in our study—all of which are likely to change daily routines and thus financial behaviors—improved financial capability. Even losing a job was linked with positive change.

The exception was having a bank close a checking account, which was linked to declines in knowledge, attitudes and beliefs about one's efficacy and control. Notably, however, this event was not linked to changes in behavior.

Events in the lives of participants' parents also were linked to changes in financial capability, though more weakly. Overall, negative events in this realm, such as a parent losing a job, were linked with improved financial capability, perhaps because the participants could benefit from the lessons learned without being directly affected.

### How Financial Education Impacts Financial Capability

Our examination of links between financial education and financial capability surfaced as one of the stand-out findings of this second wave of APLUS data: that the value of early financial education may reside in its kindling effect, stoking an interest in learning more about personal finance such that the cumulative effect of ongoing financial education improves financial knowledge and behaviors.

# Emerging Identities

## A New Way to Look at the APLUS Cohort

In this last section, we break new ground in the field of financial education and financial capability development, introducing the concept of financial identity.

We identified three distinct groups of participants based on their responses to four measures of attitude and behavior in adopting a personal financial management style.

### What is Financial Identity?

For many years, developmental psychologists have explored identity—that is, how individuals answer the question "Who am I?" in relation to other people and in different social contexts.

Extending this concept to the financial realm, we note that it is not uncommon to hear people say things like "I'm a saver" or "I'm a shopper." Here, we offer the concept of "financial identity" as an expression of how young adults "do" personal finance and the process by which they establish a financial management style.

### Measuring Financial Identity

Borrowing from the field of developmental psychology (Bennion & Adams, 1986), we asked participants to indicate their stance and approach to dealing with financial management in response to 12 prompts.

Collectively, the prompts distinguished between four positions:

Accepting parents' direction and advice without exploring other approaches.
Example: My parents know best in terms of how I should take care of my finances.

Unconcerned about finances or about developing a personal approach.
Example: I don't really think about it—I just take it as it comes.

Exploring different approaches to personal finance and still undecided.
Example: There are so many ways to manage money—I'm trying to figure it out.

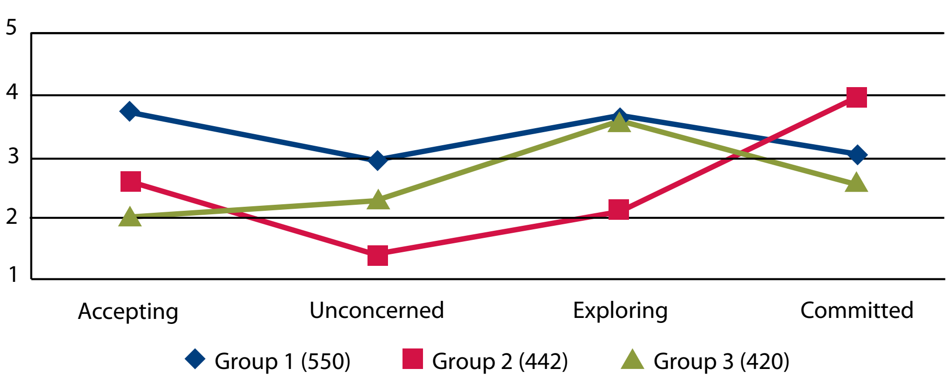
Committed to a financial style chosen through experience and thinking for oneself.
Example: I've tried different things, and now I know what's best for me.

Participants indicated how much they agreed with each statement on a scale of 1 to 5

### Developing a Financial Style

After averaging the values on each of the four identity positions, we explored whether or not participants naturally fell into clusters based on their responses. Our data revealed three distinct groups in a roughly 40/30/30 distribution:

### Figure 17: Developing Financial Styles




The largest group of respondents (39%) was distinguished by their high acceptance of parental style. However, these participants also scored mid-range in terms of unconcerned, exploration and choosing a financial style for themselves.

A second group of respondents (31%) was distinguished by their self-chosen financial style. These participants also scored relatively low in terms of accepting parental style, relatively low in exploring financial styles and were by far the least unconcerned about their finances.

Finally, the third group of respondents (30%) was distinguished as least accepting of parental style and also least having chosen a financial style for themselves. They scored relatively low in being unconcerned about finances and were just above mid-range in exploring financial styles.

## Financial Style & Capability

As the APLUS participants approach new financial responsibilities, leaving college and beginning their adult lives, we explored the association between their current financial style and financial capability.

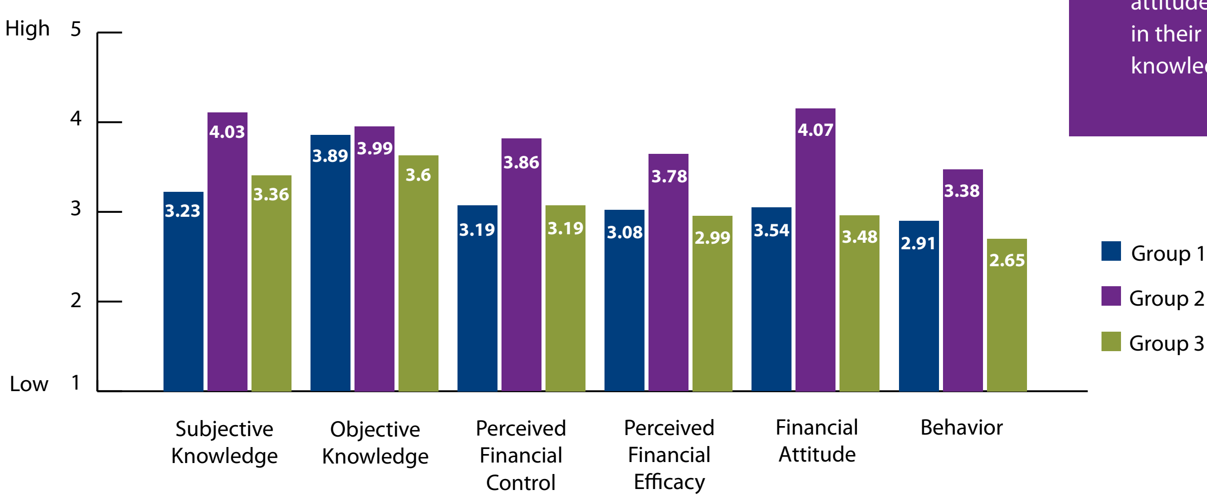
We looked at similarities and differences in all dimensions of financial capability across our three participant clusters:

- Financial knowledge: both objective and self-assessed knowledge
- Self-awareness: attitudes and perceived efficacy and control
- Behavior: self-reported financial actions

To display the analysis visually, we converted and reversed measures as needed to create parallel 5-point scales:

As this chart illustrates, one group of participants "outperformed" the others in all measures, especially in their sense of financial efficacy and control, financial attitudes and confidence in their level of financial knowledge.

### Figure 18: Associations between Financial Style and Financial Capability




## Bringing it All Together

In looking at the response patterns (Fig. 17) and the associations to financial capability (Fig. 18) for the three clusters, we name the groups as a way to talk about emerging financial styles, think about their differences and remember salient points about who they are today.

### Followers (39%)

The largest group of young adults are most accepting of their parents' financial management style and tend to follow their parents' guidance. They score much like their Drifter peers in most measures; however, they know more about finances and report better financial behaviors. Though they are exploring finances on their own, they also are the most unconcerned about the process of doing so.

### Pathfinders (31%)

The most promising group of young adults are most engaged in defining their financial style and see themselves as having actively chosen their approach to financial management. They know slightly more than their Follower peers but rate their level of knowledge much higher. They have more positive attitudes, feel much better about their efficacy and control, and report the most positive financial behaviors.

### Drifters (30%)

These young adults are middle of the road, both in terms of finding their financial style and in their financial capabilities. They are least accepting of their parents' financial management style, they are not unconcerned about personal finance, but they have not yet established their own financial style. Though their financial behaviors tend to be worse than their peers, their financial knowledge and awareness overall are solidly average.

In introducing these three overlapping but divergent groups in our research cohort, we take a step towards illuminating potential pathways young adults take in developing a financial management style.

# Conclusion

## Discussion, Implications & Next Steps

### A Model for the Development of Financial Capability

Financial capability is the foundation for responsible financial decision-making. We believe it begins with the acquisition of knowledge. Both objective and subjective knowledge contribute to improved financial awareness. Subjective knowledge—a measure of one's assessment of his/her knowledge—has an especially powerful association, possibly through facts about personal finances becoming fodder for subjective understanding of the implications and relevance in one's own life.

Indeed, both objective knowledge and subjective knowledge improved among APLUS participants over the past three years. While some gaps between demographic groups remain with respect to objective knowledge, subjective knowledge improved substantially across all demographic groups, and although men still rate their knowledge higher compared to women, other significant demographic differences have disappeared.

Data from the APLUS participants provide support for a hierarchical process by which young adults develop financial capability (see Figure 16). Applying financial knowledge to interpret, evaluate and understand experiences then promotes financial awareness as people develop financial attitudes and begin to assess their own financial efficacy and control.

Yet the translation of knowledge into more positive financial attitudes and greater feelings of financial efficacy and control is not consistent for all APLUS participants. Financial attitudes, for example, improved for more than a third of the participants but declined for more than half. These differences are reflected in the overall decline in attitudes for the group.

This is the case for the other measures of financial self-awareness as well: while the APLUS participants overall felt more efficacious and more in control of their finances than they did at Wave 1, one quarter experienced a decline in feelings of efficacy and one third a decline in feelings of financial control.

Ultimately, financial behaviors are the measure of financial awareness in practice, and while our model illustrates that the pathway to financial capability starts with gains in knowledge and continues through improved financial awareness, development along this pathway is neither guaranteed nor uniform.

Indeed, financial behaviors declined for half of the APLUS participants and improved for more than a third of the others. In this report we focused on positive changes in promoting financial capability; we note however, that negative changes reduce financial capability.

Over the next few years, participants' financial capability will continue to develop and change as these young adults face increasing financial obligations, make more complex financial choices and continue to learn more about personal finance. The financial decisions they make in meeting the challenges ahead will add to our understanding about what helps and what hinders financial capability.

## The Changing Role of Parents & Peers

To more fully understand individual differences along the pathways to financial capability, we also looked at other factors that play a role in development, beginning with the role of parents, which evolves from childhood dependence, through increasing independence to a more equal relationship between adults (Aquilino, 2006).

APLUS participants indicated a decline in parental modeling over the past three years, perhaps because they are spending less time with their parents or maybe parents have stepped back and let their young adult children take more responsibility for their own financial lives. Still, parents continued to influence them through increased expectations and ongoing communications about managing finances, both of which are significantly associated with developing financial capability.

Our findings also demonstrate that while the nature of the relationship between children and parents becomes more peer-like, the value of that relationship grows: participants at Wave 2 rated the quality of their relationships with parents higher now than when initially measured during their first year of college.

As relationships with parents change, so do relationships with peers. When their friends' financial behaviors improved, so did the behaviors of the APLUS participants, a link that we did not see in Wave 1.

The number of marriages and close relationships increased among APLUS participants over the past three years, and the quality of these relationships was rated higher than those with friends and parents. This shift mirrors the growing independence of these young adults as they exercise more control, both widening and changing their social networks (Eccles et al., 2003).

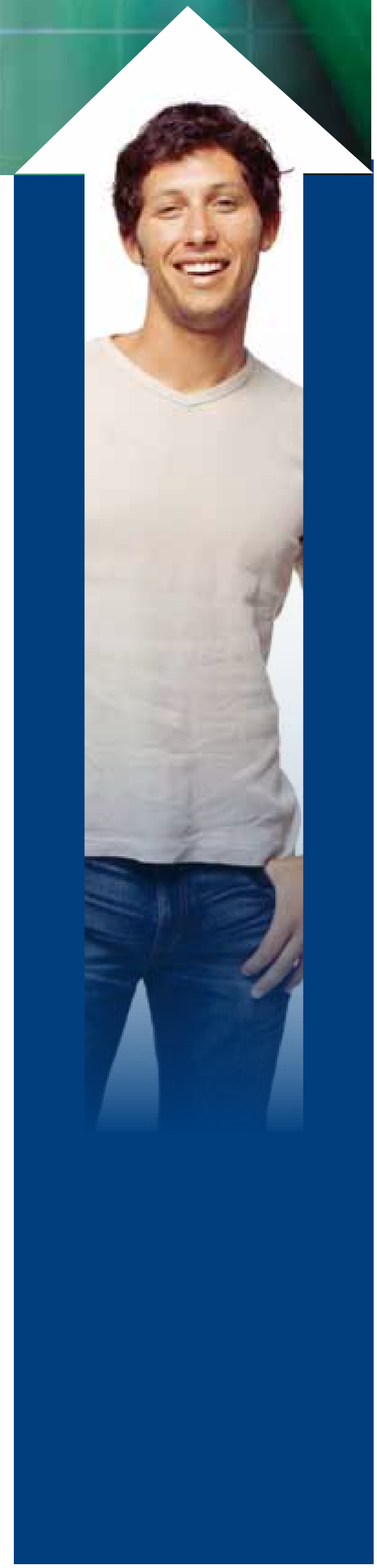
In the future, it will be interesting to follow these changes in relationships and associated shifts in the financial capabilities of the APLUS participants.

## The Value of Financial Education

Within the framework of our model, financial capability may be best understood as a dynamic process. From this perspective, the process is strengthened through ongoing financial education—formal courses as well as informal learning experiences (Loibl & Hira, 2005)—exposing people to new financial concepts.

As those concepts become more relevant to experiences, young adults interpret what they have learned differently, applying previously learned knowledge to their own lives. Thus, the benefits of early financial education may emerge over time (Bernheim, Garrett, & Maki, 2001), a suggestion supported by our finding of significant associations between financial capability and cumulative financial education.

In a generation with instant access to unprecedented amounts of information, the most valuable measure of financial education may in fact be the extent to which it sparks continued interest in learning rather than any immediate gains in financial knowledge or immediately improved financial behaviors.



## Financial Identity

Developing a prospective approach for early identification of financial management styles may prove invaluable in promoting greater financial capability among young adults and identifying young adults who may benefit from financial intervention.

The APLUS study introduces measures of financial identity as a new approach to examining financial capability and decision-making and lays a foundation for understanding how financial styles develop and change. Classifying participants by their approach to adopting or developing a financial management style provided us with another way to examine their current level of financial readiness.

Participants we label **Followers** represent young adults with the promise of balanced financial decision making. That is, they have the benefit of higher objective financial knowledge and parental role models to help guide their future decision making. As yet, however, they have little drive to explore financial management beyond these examples. It will be interesting to see if they maintain positive parenting behaviors as they become more independent.

**Pathfinders** as a group, describe young adults who are developing financial independence, seeking understanding about their own needs and wants as well as a broader understanding of how the money system works. This balance of internal and external understanding may help them make more informed financial decisions as they transition further into adulthood.

The **Drifters** are the most open and undecided about financial management style. It may be that their learning style differs from both Pathfinders and Followers and that they advance by trial and error.

Future waves of study will help us understand if participants retain or change places on the path to developing financial capability.

## Research in Challenging Times

When studying the development of financial attitudes, beliefs and behaviors, it is impossible to divorce the research from its contemporary context. The college years are a demanding time financially for most families: tuition costs and associated expenses can create considerable financial burden.

The APLUS study is being conducted with a cohort of young adults who came of age during the worst recession since the Great Depression—a time of job losses and high unemployment, decreasing employer-provided benefits, less access to credit and other significant challenges. Many participants and their families have felt the sting of recession. Undoubtedly these factors affect how participants think, feel and act.

### Deteriorating Attitudes

We observed at Wave 2, for example, sharp declines in attitudes towards saving and investing, even as participants report feeling more financial efficacy and self-control. It is easy to imagine that the recent financial crisis—when many people saw significant financial losses—has led many young adults and/or their parents to question previously held attitudes and beliefs about managing money.

Those same losses within participants' families likely contributed to Wave 2 declines in saving and investing behaviors, with participants simply lacking the funds and/or questioning the wisdom of these practices in the wake of the market crash.

### Unexpected Gains

On the other hand, it is important to remember that difficult times also may spark positive change. We observed at Wave 2, for example, new discrepancies between groups of different socioeconomic status in their self-rated financial efficacy.

While all three SES groups reported higher feelings of efficacy at Wave 2, the increase was significantly greater among lower-SES participants. We speculate that the higher levels of financial independence reported among lower-SES participants requires them to make more financial decisions on their own, thereby building their confidence in their abilities to manage their finances.

Similarly, based on research in stress (Dohrenwend & Dohrenwend, 1981), we would expect to find that negative financial events would detract from financial capability. Instead, we found that both recent positive and negative life events were associated with greater financial capability.

Our look at these associations does not provide a complete picture, but we speculate that adverse events may create urgency to strengthen financial capability, driving the emergence of a "sadder but wiser" young adult. We may find in later data waves that exposure to negative events today has contributed to how participants will respond to future experiences (Lazarus, 1999). APLUS participants living through negative financial events may now be on a different pathway into adult life.

### A Word on Well-Being

We can only speculate at this early stage of the study on the relationship between financial capability and long-term well-being and life-success—associations we will continue to examine throughout participants' adult lives.

Today our model illustrates how financial capability emerges from changes in the way people think, feel and behave with regard to personal finances and how that improved capability relates to greater financial and overall well-being.

We observe, however, that while participants at Wave 2 reported greater physical and psychological well-being coupled with feelings of greater financial efficacy and self-control, they also report worsened financial well-being.

While this finding may seem to contradict expectations, consider that many of these young adults have amassed considerable debt in recent years, have yet to establish their careers and face a depressed job market.

## Implications

We began this report by asking, "How prepared are the APLUS participants for the life-changing experiences awaiting them in the world of adult responsibility?" Their individual achievements vary, but as a group they have made progress towards academic goals, financial independence and financial capability. And ultimately, regardless of their progress—ready or not—their world is changing and they are changing with it.

### For Young Adults

For today's youth, financial security rests on one's own shoulders. While young people have their adult lives to achieve that security, the process begins now. Sound financial decisions can help one achieve financial security, but the benefits of financial knowledge, awareness and capability extend beyond having money into realms of physical and psychological well-being. Achieving financial capability begins with education and requires active and ongoing learning throughout a lifetime.

### For Parents

We have repeatedly found that parents play an important role in preparing their children to be financially self-sufficient, and that their influence continues after their children leave home through conversations and communicated expectations. Children learn about money matters from their parents. Parents can encourage young people to continually seek out new information, coach them in evaluating sources of information, and provide concrete advice and examples to guide them.

### For Education Administrators

It is increasingly difficult to provide well-rounded curricula in the face of shrinking budgets, and today's youth have access to information far exceeding what schools can make available. Together these factors do not diminish the responsibility of our education systems; they converge on a new area of importance. Youth are savvy about using technology to find information, but we must arm them with the critical thinking skills to evaluate its quality. This cross-curriculum goal must be emphasized at every level of education to ensure proficiency before youth transition to adulthood.

### For Educators

Young people need financial education—now more than ever given today's complex financial services industry and greater focus on individual responsibility for financial security. While age-appropriate curriculum is important, our findings indicate that repeated exposure to financial concepts makes the most powerful contribution to financial capability. In addition to increasing knowledge about money matters, every financial education experience has the potential to spark student interest to seek out the next financial class, workshop, book or magazine.

## What's Next for APLUS?

APLUS is the first study to capture changing information about the financial knowledge, attitudes, self-awareness and behaviors of the same young adults over time. As such, we are able to examine the interplay of life experiences and evolving financial capability as a dynamic process towards financial self-sufficiency and life success.

This current phase of the study provides a glimpse into emerging financial management styles at the end of the college years. Participants are more concerned about adopting an approach to financial management, less likely to simply accept their parents' style but not actively exploring any more so than before.

This pattern suggests that as a group, the young adults of APLUS recognize the need to be informed but are not yet ready to commit to a specific approach to financial management. We expect to see substantial changes in these areas in our next wave of data as participants begin to earn more, take on more financial obligations and become more financially independent.

In analyzing the life changes they experience, we will expand and deepen our understanding of both individual differences and shared catalysts in the development of financial capability and its link to successful life outcomes.

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In a recent issue of our Take Charge America Institute newsletter, I wrote that good partners make great programs. Partnerships have been a hallmark of the Take Charge America Institute's operations since its founding seven years ago. Not only do good partners expand what we can accomplish with limited resources, but they also make projects more fun and rewarding for everyone involved.

I want to take this opportunity to thank our many University of Arizona campus partners for supporting the APLUS project over the past four years. From Advising to Athletics to Residence Life to Student Financial Aid, more than two dozen campus administrative units have shared a common vision. We all believe that an investment in careful research on the evolution of financial confidence in one freshman class will show this University how to better prepare and better serve future students for years to come.

I also want to thank our principal funders, the National Endowment for Financial Education and the Citi Foundation for having sufficient confidence in both the research question and the research team to commit the significant financial resources required to conduct a longitudinal study. That investment is already paying off. With this third major report of project findings, I feel like we've begun to create the academic equivalent of a page-turner. I hope you stay with us for the next chapter as our APLUS students leave campus to establish themselves in the working world. In the meantime, enjoy and apply the insights from this latest report.

*Michael Staten*
*Professor and Director, TCAI*



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