



THE UNIVERSITY OF ARIZONA  
 COLLEGE OF AGRICULTURE & LIFE SCIENCES  
 Norton School of Family and Consumer Sciences

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# Life After College: Drivers for Young Adult Success

APLUS  
 Arizona Pathways to Life Success  
 for University Students  
 Wave 3



John and Doris Norton School  
 of Family and Consumer Sciences  
 College of Agriculture and Life Sciences  
 Take Charge America Institute  
 for Consumer Financial Education and Research



Citi Foundation  
 National Endowment  
 for Financial Education® (NEFE®)



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Dear Colleagues,

More than five years have passed since we launched the APLUS Project, a longitudinal study of a freshmen cohort group at the University of Arizona. What began as a research project to better understand how young adults develop financial knowledge and practices has grown into an historical account of coming of age during the nexus of a severe economic downturn and a set of gradually changing social and employment norms.

Who could have foreseen the dramatic changes these young people would face on their path to adulthood! During the study period, financial markets sank to levels not seen since the Depression, student loan debt eclipsed credit card debt for the first time ever – and the ensuing soft labor market continues to challenge the nation's recovery.

In Wave 3, we heard from more than 1,000 APLUS participants (most who have graduated college) about the changes in their lives over the past three years -- and how those changes affected their current financial attitudes, behavior, and well-being. Now, with data gathered over a five-year period, from first year in college to young adulthood, our analyses provide powerful insights into the factors that drive future financial behavior. APLUS is a unique resource that will shed new light on the ways a new generation of young adults adapt to adult roles and responsibilities.

We are indebted to many people for the continued success of the APLUS project. First and foremost, we are deeply indebted to our funders: the National Endowment for Financial Education® (NEFE®) who has provided continuous financial support since the beginning of the project, and to the Citi Foundation, who joined us at Wave 2 and continues their generous support.

The quality of this research is a tribute to the efforts of a team of dedicated and diverse professionals, and we thank them for their time and insights. First, to our co-investigator, Dr. Michael Staten, for his ongoing support from TCA Institute and to our research collaborators (Drs. Noel Card and Chuanyi Tang for their statistical expertise, Dr. Melissa Curran for her understanding of young adults' romantic relationships, Dr. Sabrina Helm for piquing our interest on young adults' sustainable attitudes and behavior, Dr. Miranda Joseph for her thinking about gender and finance, Dr. Andrea Romero for her focus on culture and finance). A special thank you to Robert Lanza, whose creativity and IT expertise made the impossible happen. Thanks to the students who worked hard to make the project a success, both graduate students (Ms. Sun-Young Ahn and Ms. Ya-Hui Kuo) and undergraduate students (Emma Garner, Allison Garrett, Brianna Mason, Natalie Minas). We sincerely appreciate the continuing support of our many campus partners at the University of Arizona.

Finally, we thank the young adults whose participation in APLUS means so much to this research. It is through their participation that we come to understand the role that financial knowledge and behaviors play in promoting financial well-being and life success.

Together, we are integrating the fields of financial literacy and social science to make a difference in the everyday lives of young adults, today and for the future.

Thank you.

Sincerely,

*Joyce Serido, Ph.D.*  
*Assistant Director & Research Professor  
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University of Arizona  
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## Acknowledgement:

This study has been made possible through the generous support of the Citi Foundation and the National Endowment for Financial Education® (NEFE®). 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.

# Executive Summary

How do changing economic conditions and uncertain market opportunities affect young adults' transition from their undergraduate college years to adult roles and responsibilities? The Arizona Pathways to Life Success (APLUS) project is uniquely positioned to answer this question. Launched in 2007, APLUS examines what factors shape and guide individual life trajectories — the pathways that young adults tread on their way to independence and self-sufficiency.

APLUS is a longitudinal panel study of data collected from a cohort of young adults at several points over, thus far, a five-year period. Compared to cross-sectional surveys, a longitudinal study collects data from the same people over time. This approach provides a powerful tool for identifying the factors that drive future behavior.

We began the study with a cohort of emerging adults (ages 18 through 21). Now, as they transition to young adulthood (ages 23 to 26), we revisit their lives as they work to establish independence. With the generous support from the National Endowment for Financial

Education\* (NEFE\*) and the Citi Foundation, we examine the critical factors that promote or detract from a smooth transition to adulthood.

Insights from the first few waves of this unique longitudinal research have already been used to inform practitioners and policy-makers about the important and continuing role of parents in the financial behaviors of their college-aged children. Our data has also supported the cumulative impact of early and repeated financial education. In this Wave 3 report, we consider how a cohort of young adults approaches launching professional careers and managing the demands of adult life.

Financial decision-making is a life-long process. In the face of changing personal and external circumstances, individuals must continually adapt their financial knowledge, skills and behaviors to maintain high levels of financial capability. Our vision is to develop a model for improving lifelong personal financial management by better understanding how various factors drive consumer financial capability, success and well-being.

## APLUS Chronology

First Year of College  
Wave 1  
Data: 2008

Economic Crisis  
Intermediate  
Inquiry: 2009

Fourth Year of College  
Wave 2  
Data: 2010

Beyond College  
Wave 3  
Data: 2013



## Key Findings at Wave 3

### Financial Instability Constrains Self-Sufficiency

More than half the participants overall (50.6%) reported relying on financial support from family to meet current financial demands, including nearly half (48.9%) of those employed full-time. This finding raises concerns both for young adults trying to become self-sufficient and for their parents as they prepare for retirement.

Related, financial instability made it difficult for many young adults to meet current financial obligations or save money. Financial instability interfered with achieving financial goals including paying off student loans, making major purchases, buying a home and saving. Paying student loans was particularly challenging among graduate students and participants employed part-time.

Notably, part-time and self-employed participants reported as much difficulty meeting financial demands as did unemployed participants.

### Financial Challenges May Chip-Away at Well-Being

Although participants' psychological and physical health did not differ by employment status, the value of a steady income was apparent in other domains of well-being.

While full-time employees rated their financial well-being and life satisfaction higher compared to other participants, participants with debt reported lower well-being in every domain regardless of employment status.

Also, while higher income minimized the impact of debt on psychological and physical well-being, both financial well-being and life satisfaction remained significantly lower for participants in debt.

For participants with debt, financial well-being was 17% lower, 19% lower and 31% lower for those employed full-time, employed part-time and unemployed, respectively. Debt was associated with 4%, 8% and 10% lower life satisfaction for those same groups.

These findings suggest that more than a financial burden, debt undermines well-being. Furthermore, carrying debt seems to erode the benefits of even full-time employment.

### Responsible Financial Behaviors Light Pathways to Life Success

Our findings showed that patterns of financial behaviors practiced during the college years were drivers for three distinct pathways to young adulthood:

- **High-Functioning** participants (12%) maintained consistently high levels of responsible financial behavior across all three waves;
- **Rebounding** participants (61%) started college with moderately responsible financial behaviors that had declined by year four but rebounded by Wave 3 two years later;



- **Struggling participants** (26%) started college with poor financial behaviors, which had further declined by year four; though their behaviors had improved two years on, they were still worse than during their first year of college and significantly lower than all other participants.

Defined by patterns of behavior, these groups also evidenced correlating levels of life success. High-Functioning participants made the most progress towards self-sufficiency and markers of adult status. Rebounding participants made moderate progress in those measures, while Struggling participants fared worst.

Examining our data over time showed that while sociodemographic characteristics in no way differentiated transitions to adulthood, other factors observed at Wave 1 (first year of college) clearly helped determine why some participants went on to become either Struggling or High-Functioning in 2013 — groups significantly different from the normative Rebounding participants:

- Better financial attitudes, higher parental expectations, and having financial education promoted a more successful transition to young adulthood;
- A lack of financial education, lower perceived financial knowledge, less perceived financial control and lower parental role modeling made for a less successful transition.

Together, these findings not only suggest the benefits of responsible financial behaviors in late adolescence as a pathway to adult self-sufficiency, they also provide insight for identifying at-risk youth and designing effective interventions to promote higher functioning later in life.



## Other Wave 3 Highlights

### Young Adults Are Redefining Goals & Expectations

- Many participants reported that marriage (28%) and having children (27%) were not important life goals; 19% felt home ownership unimportant, and 16% rated living on their own as unimportant.
- Employed participants rated working within their area of interest as the most important contributor to career satisfaction, and rated employer 401k matching as least important.
- Annual salary mattered more to participants working full-time compared to those working part-time. In contrast, participants working part-time valued working in one's area of interest, opportunity to make a difference or help others and flexible work hours more so than those working full-time.
- Financial independence was an important goal for 91% of participants, a significant drop compared to the 95% at Wave 2.
- The 2% of young adults who said they felt they would never be self-sufficient was three times the number who felt that way at Wave 2.

### Financial Capability Is Improving With Age

- Objective financial knowledge was up 9% compared to Wave 1, subjective knowledge was up by 13%, and men maintained a small but significant advantage in both measures.
- By Wave 3, financial self-efficacy was up 5% and financial attitudes had rebounded to near Wave 1 levels; Wave 3 levels were higher for men, White participants and those employed full-time.

- Perceived financial control remained steady compared to Wave 2 levels, down 9% from Wave 1 levels; it was higher for non-Hispanic minorities compared to White and Hispanic participants.
- Two financial behaviors improved steadily since Wave 1: paying bills on time (up 7% overall) and learning about finances (up 5% overall); three behaviors that had fallen returned to Wave 1 levels: tracking expenses (4%), saving (8%) and investing (13%). Spending within budget steadily declined since Wave 1, dropping 7% overall.

### Romantic Partners Become Key Influencers

- There was an 80% increase in the number of participants in committed relationships at this life stage: from 11% at Wave 2 to 64% at Wave 3.
- At Wave 3, romantic partners were the strongest influence on participants' financial behaviors.
- Entering a committed relationship was associated with a 5% improvement in financial behavior.

### Parental Influence Is Waning But Still Important

- While parents were the most likely source of financial advice among the participants, they came in second to romantic partners in terms of influencing financial behaviors.
- Financial professionals are more important at this life stage: participants were just as likely to seek financial advice from professionals as from their parents.

# The APLUS Project

## Through College & Beyond

In 2007, many researchers studying the financial behaviors of college students were asking: What accounts for more and more students mismanaging credit cards (Lyons, 2003)? We wanted to explore different questions: How do college students acquire financial skills as they transition to young adulthood, and how do those skills relate to their well-being over time (Shim et al., 2009)?

To answer those questions, we launched the Arizona Pathways to Life-Success for University Students (APLUS) project, a longitudinal study of a cohort of college students and the first scientific examination of young adults' changing financial knowledge and practices.

### Data Gathering 2008 Through 2010

Wave 1 of APLUS data was collected early in 2008 during the participants' first year of college. Wave 2 data was planned for and completed in the fall of 2010, at the start of participants' fourth year of college.

In between, in the spring of 2009, we gathered additional data in what is now termed Wave 1.5. The inquiry was not part of the original APLUS design but took advantage of the unique opportunity to study how the financial crisis gripping the country at that time affected participants, who were then in their sophomore year.

Reports for each wave of APLUS are available at <http://aplus.arizona.edu/resources.html>.

### Young Adulthood Beyond College

When we began this study, our first aim was to understand how people and experiences had shaped the financial attitudes and behaviors of students as they rounded out the transition to college in the second half of their freshman year.

We asked students about their early financial socialization experiences: What did their parents teach them? Had they taken personal finance classes in high school? Did they ever work during summers or during the school years?

The college years that followed were filled with new opportunities and challenges for our participants, as they are for all teens as they become young adults. A key challenge of that transition is learning to make financial decisions and manage day-to-day circumstances independently.

In this Wave 3 report, we provide a new look at changes reported by the APLUS cohort over the past five years and a glimpse into the lives of young adults (23 to 26 years old) making their way in a world with fewer job opportunities and higher student loan debts compared to previous generations.

This fresh data adds new pieces to the puzzle as we work towards our long-term goal: to understand how early financial behaviors contribute to — or undermine — well-being and life success.

### Wave 3 Objectives

Our focus in APLUS Wave 3 was to complete a prospective analysis of how economic, social and psychological variables impact early-adult financial well-being and life success. In this report we:

1. Describe the college-to-career transition for a cohort of young adults, including the financial demands they face;
2. Examine changes in their financial capabilities and well-being, including the shifting landscape of who influences and advises them;
3. Demonstrate how their financial behaviors may be advancing or impeding their success.

### Sample Size & Characteristics

In 2013, we invited the APLUS participants via email to take an online survey. The survey included questions from previous study waves, as well as several covering new ground such as career progress, new adult roles and new financial responsibilities. We were able to reconnect with 1,848 (88%) of the original 2,098 participants, and 1,010 (55%) of those completed the survey.

As a group, Wave 3 characteristics matched those of Waves 1 and 2, with no significant sociodemographic differences:

- Roughly two-thirds of the respondents were women, one-third men;
- 67.5% were White, 15% Latino/a, 10% Asian, 3% Black and 1.5% Native American; 3% left this question unanswered;
- 31% said their parents' make \$50,000–\$150,000 annually, classified as mid-level socioeconomic status (SES); 43% said their parents made less, and 26% said their parents made more.

# Transitioning From College

For previous generations, becoming an adult meant an observable series of life events in dependable order: college graduation, career, marriage, buying a home, having children. Implicit in that transition from adolescent dependence to adulthood was the understanding that financial self-sufficiency followed college graduation and preceded everything else.

For today's young adults, however, those life events are no longer so predictable: young people may marry earlier, later or not at all, they may or may not have children, they may not want to own a home.

With those visible, public markers no longer reliable signals of adult status, what remains is the invisible and private quality that has always been an unspoken part of the adulthood equation: financial self-sufficiency.

Thus, adult status today is only reliably signaled by one's ability to accept financial self-responsibility, establish an independent household, and make adult life choices (Arnett, 2000). In this perspective, adult status refers to both objective progress toward financial self-sufficiency and a subjective assessment of "feeling" like an adult.

A key goal in this third wave of APLUS was understanding how participants were faring on the path to adulthood in these dimensions, prompting us to look at their employment status, financial self-sufficiency and their sense of being an adult.

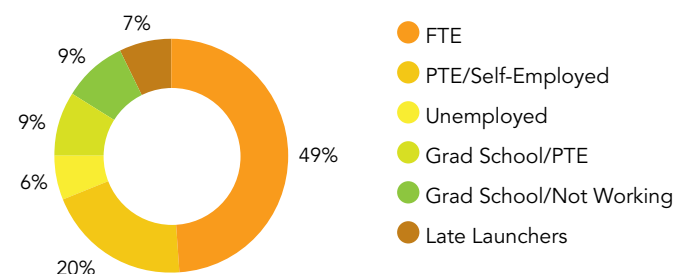
## Employment Status & Career Choices

In the United States, the transition from school to full-time work has historically been a key "coming of age" milestone (Eccles et al., 2003), and so we begin by looking at where the participants were on their career paths in 2013, roughly two years out of college (Fig 1):

- Only 49% of participants reported having full-time employment (FTE);
- 20% reported part-time employment (PTE) or self-employment;
- 18% were enrolled in graduate studies, half of whom were also working part-time;
- 7% of the participants said they were not looking for employment at the time;

- 6% reported unemployment — a rate below the national average of 8.8% among young college graduates (Shierholz et al., 2013).

Fig. 1: Employment Status Two Years out of College



### LATE LAUNCHERS

Among APLUS participants, 7% reported not looking for employment at Wave 3 — two years out from their senior year — even though 6 in 10 of them had planned to work after college.

Described here as "Late Launchers," the group differed from others in several findings discussed in this report and so merits a closer look.

Late Launchers included somewhat more men than women (56% to 44%) and hailed from the full range of socioeconomic backgrounds: equally from lower- and higher-income families, somewhat less so from middle-income families. Nearly 60% were White and 20% were Hispanic.

In those ways, they differed somewhat from participants overall, but what most distinguished them was that nearly all of them (92%) said a lack of money had caused them to move in with a relative, significant other or parents in the preceding six months.



## Job Satisfaction & Future Prospects

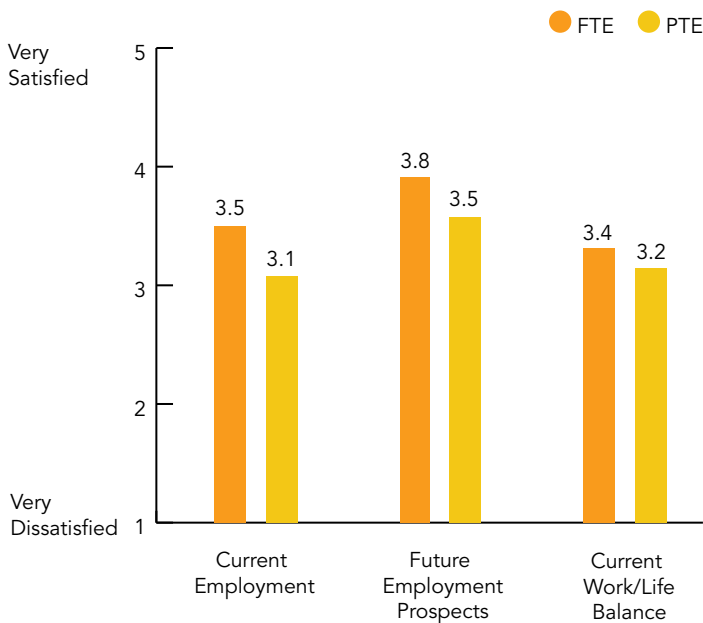
Although a college education has historically been an indication of more career opportunities and higher income, launching a career today is a challenge even for college graduates (Shierholz et al., 2013). Many young adult cohorts who graduate college in weak national economies find themselves taking any job just to pay the bills and may be overqualified for the jobs they take (Kahn, 2010).

To assess the quality of participants' employment situations, we asked the FTE and PTE participants (excluding graduate students who were working part-time) to rate three aspects of employment satisfaction, each on a scale from 1 (very dissatisfied) to 5 (very satisfied) (Fig. 2).

Overall, APLUS participants were moderately satisfied with their current work/life balance. Those who were employed full-time, however, were more satisfied with their current employment as well as future employment prospects compared to those who were employed part-time.



Fig. 2: Employment Satisfaction



## What Young Adults Look for in a Job

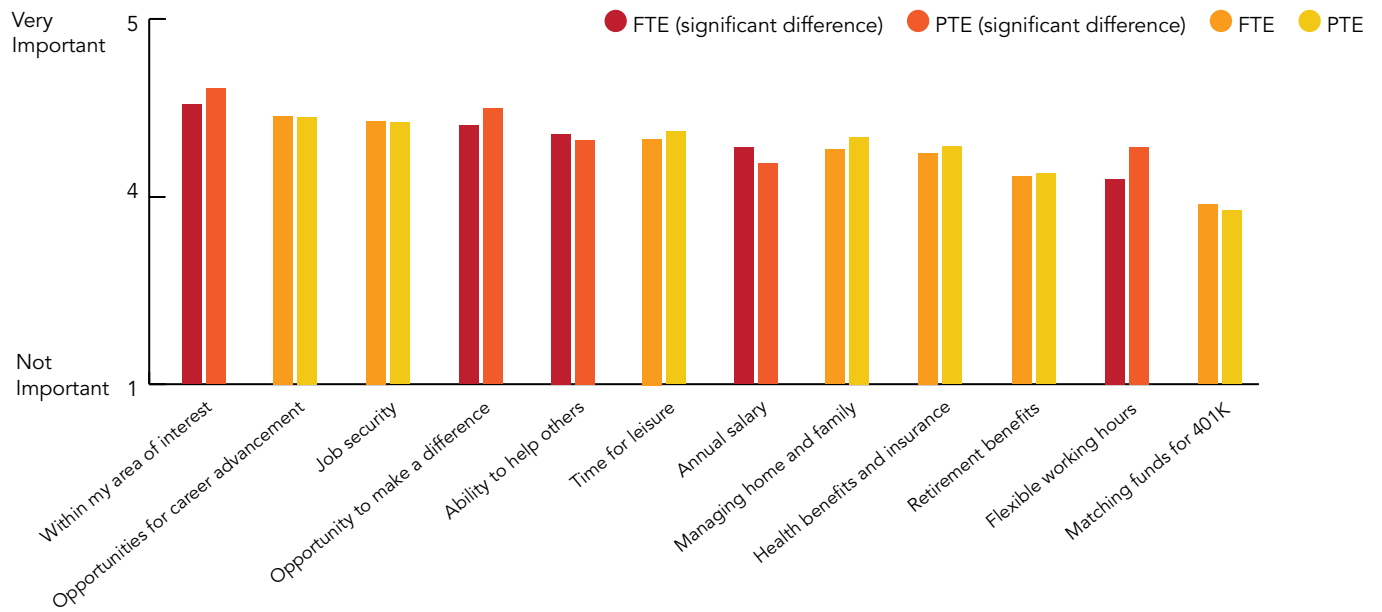
With participants overall feeling well short of “very satisfied,” it’s important to examine what contributes to job satisfaction. We asked participants to report on this by rating the importance of 12 factors that can contribute to career satisfaction, each on a scale from 1 (not important) to 5 (very important) (Fig. 3).

FTE and PTE participants alike rated working within their area of interest as the most important contributor to career satisfaction, and both groups rated matching employer contribution to 401k as least important. Beyond those similarities were five significant differences between the two groups:

- FTE participants ranked annual salary as more important compared to the PTE participants;
- PTE employees valued a) working in one’s area of interest, b) the opportunity to make a difference, c) the ability to help others and d) flexible work hours more so than FTE participants.



**Fig. 3: Career Satisfaction for Young Adults**



Since we had asked these same questions of all students at Wave 2, we compared participants’ responses to see if current differences between the groups might be driven by their subsequent work experience or if the two groups had different career objectives as they graduated from college.

Only one difference between the groups had persisted from fourth-year college data to Wave 3 two years out: Part-time employees valued flexible working hours more so than the full-time employed at both times.

There were, otherwise, some interesting changes between what participants valued before they left college and now, irrespective of their current employment status:

- The importance of annual salary dropped for both groups;
- Working in one’s area of interest and flexible work hours gained importance for both groups;
- The opportunity to make a difference and the ability to help others gained importance for both groups, though the difference was more pronounced for part-time employees.

More research will be needed to better understand these differences. Do they suggest that the decision to work full-time or part-time reflects a life-style choice more than a lack of full-time job opportunities? Or is the cause-and-effect relationship more nuanced?

One thing is clear: Taken together, the results paint a picture of changing goals among young adults when it comes to careers, notably trading increased income for aspects related to personal values.

### Financial Self-Sufficiency

To assess progress toward financial self-sufficiency two years out of college, we explored whether or not participants were making it on their own, receiving help from family or a spouse or borrowing money to meet their financial obligations, and whether or not those situations varied significantly by employment status (Table 1).

We were surprised to find that just 300 of the 1000+ participants were financially self-sufficient. More than two-thirds were relying on financial help from others — mainly families and spouses (50.6%), though many were borrowing money elsewhere to meet their financial obligations (17.4%).

**Table 1. Employment Status & Financial Self-Sufficiency**

	Overall	FTE	PTE	Unemployed	Late Launchers	Graduate Student Working PT	Graduate Student Not Working
Self-Sufficient	32.0%	47.0%	20.3%	11.5%	26.9%	19.1%	5.9%
Helped by Family/Spouse	50.6%	48.9%	60.9%	75.4%	56.7%	37.1%	28.2%
Borrowing Elsewhere	17.4%	4.1%	18.8%	13.1%	16.4%	43.8%	65.9%

Because employment is a primary source of income (FINRA, 2013), it is not surprising that participants employed full-time were the most financially self-sufficient. Since higher education incurs additional expenses, it is also no surprise to find that graduate students were borrowing the most.

What was striking, however, were the high percentages of participants in every career status receiving financial support from family, including nearly half (48.9%) of those employed full-time.

In the past, college graduates who worked full-time were financially self-sufficient. For some time, however, researchers have documented that young adults are receiving continued financial and emotional support from their parents (Schoeni & Ross, 2005).

Whether or not a weak labor market is increasing the need for intergenerational support — a likely driver in today’s economy — our data clearly showed that many young adults today may not be earning enough to make it on their own, even when working full-time.

### The Changing Meaning of Employment

These findings raise an interesting question: If full-time employment no longer equals financial self-sufficiency, do we need to redefine what full-time employment means? Additionally, this continued reliance on others across all employment statuses has important implications:

- First, a lack of employment opportunities may be widening the gap between thriving young adults and those who are struggling;
- Regardless of employment status, the already lengthening pathway to financial self-sufficiency (Hallquist et al., 2011) may be growing even longer;

- And finally, as a result, as parents seek to smooth that transition for their children, they may be setting themselves up for their own rocky transition to retirement.

## Achieving Adult Status

In addition to embarking on a career, adulthood today is marked by a sense of feeling “grown up” rather than by specific social milestones like marriage or parenthood (Arnett, 2000). Given this evolution, we asked participants if they felt they had “reached adulthood,” with a score of 5 equaling a solid yes, 1 a solid no.

Looking at the data by employment status (Fig. 4), we found only one significant group difference: Full-time employees saw themselves as significantly “more adult” compared to the way part-time employees rated their adulthood.

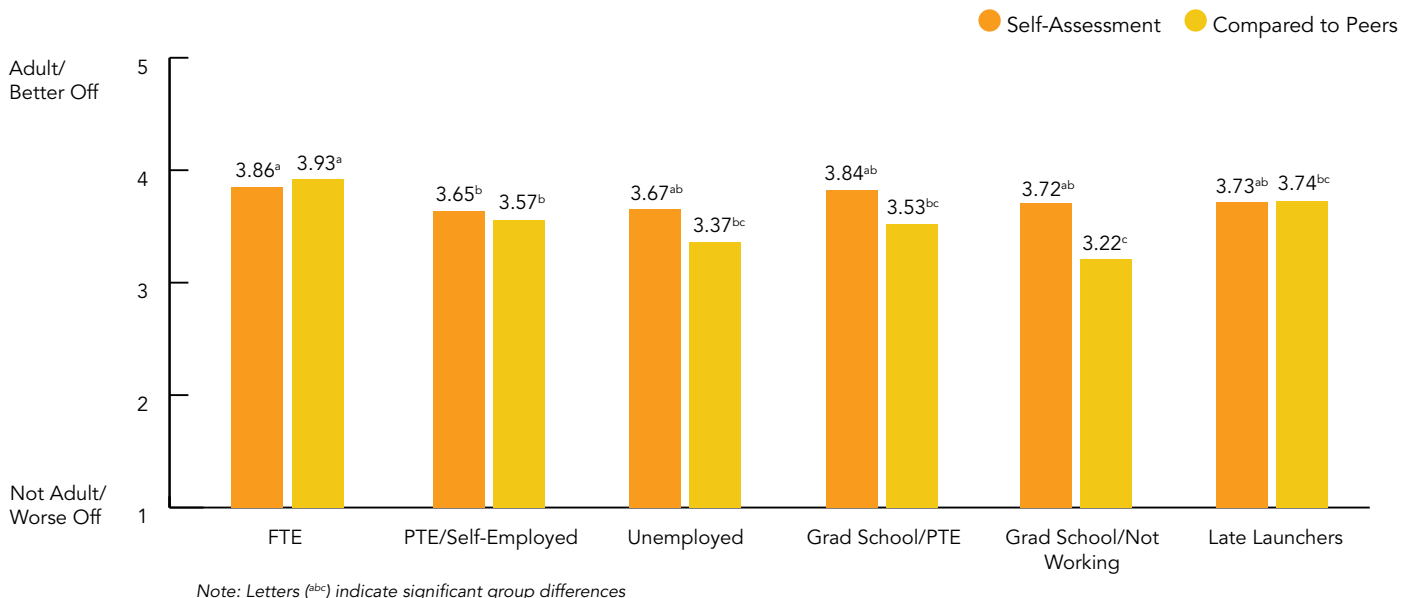
We also asked participants if they felt they were doing better or worse financially as compared to their peers — working with perceived financial stability as a proxy for perceived adulthood — again using a 5-point scale ranging from 1 (a lot worse off) to 5 (a lot better off).

In this comparison, full-time employees reported feeling significantly better off than their peers, with non-working graduate students and unemployed students reporting the lowest scores.

Inevitably, the shift from college student to employed college graduate lays the foundation for a social comparison hierarchy, and not surprisingly, working participants overall, including those receiving financial support from their parents, rated themselves more adult and better off than their peers.

Interestingly, however, all groups gave themselves the equivalent of a “C” grade or better in these measures despite the high number of participants across employment statuses getting financial help from families and spouses.

Fig. 4: How “Adult” Young People Feel



# Financial Obligations & Demands

Given the role that personal finances play in one's sense of achieving adulthood, it is important that we understand the financial challenges young adults face. Juggling financial demands is a daily challenge for many Americans, but how is that challenge different for young people as they take on more adult roles and responsibilities?

## Difficulty Meeting Financial Demands

To answer this question, we looked first at how easily APLUS participants met their financial obligations, with particular interest in how they rated their ability to manage four financial demands typical of adulthood: regular monthly expenses, credit card bills, unexpected expenses and saving for the future. We also included educational loans as a fifth category, given widespread concerns about the debt burden associated with financing higher education.

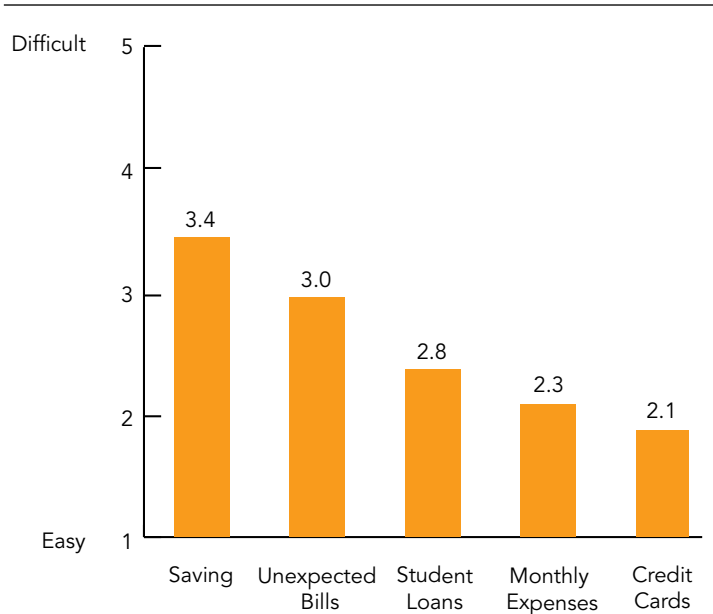
We asked participants to rate their ease or difficulty in meeting these obligations on a scale from 1 (easy) to 5 (difficult) (Fig. 5), excluding from the data participants who indicated that a particular demand did not apply to them (e.g., a participant who didn't have credit card debt or student loans).

Overall, participants had the most difficulty saving money and handling unexpected bills. Since many Americans are unable to make ends meet (FINRA, 2013), this finding is not surprising, especially given that study participants were just starting out on their own.

## Employment Status & Meeting Financial Demands

Gradual changes in the labor market over the past 30 years have contributed to financial instability among many American households (McCloud & Dwyer, 2011). With that fact in mind, we looked more closely at associations between employment and financial demands (Table 2).

Fig. 5: Ease or Difficulty Meeting Financial Demands



In probing how employment status affected participants' ability to manage their financial obligations, we were not surprised to find that FTE participants were faring the best. We were somewhat surprised, however, to find that part-time or self-employed participants and unemployed participants had an equally difficult time meeting typical financial demands.

This may be due to the fact that, as noted previously, more unemployed participants were receiving financial help from family (~75%) compared to those employed part-time or self-employed (~61%). It also may be that unemployed participants avoid having a more difficult

Table 2. Employment Status & Financial Demands (1=easy – 5=difficult)

	FTE	PTE	Unemployed	Late Launchers	Graduate Student Working Part-Time	Graduate Student Not Working
Student Loans	2.48 <sup>a</sup>	3.00 <sup>c</sup>	3.16	2.42	3.02	3.23 <sup>bc</sup>
Credit Cards	1.98 <sup>a</sup>	2.44 <sup>b</sup>	2.51 <sup>b</sup>	1.78 <sup>a</sup>	2.20	2.07
Monthly Expenses	2.08 <sup>a</sup>	3.68 <sup>b</sup>	2.90 <sup>b</sup>	2.00 <sup>a</sup>	2.41	2.39
Unexpected Bills	2.82 <sup>a</sup>	3.56 <sup>b</sup>	3.61 <sup>b</sup>	2.74 <sup>a</sup>	3.11	3.13
Saving for the Future	3.16 <sup>a</sup>	3.83	4.03 <sup>b</sup>	3.42	3.75 <sup>b</sup>	4.00

Note: Letters (<sup>abc</sup>) indicate significant group differences.

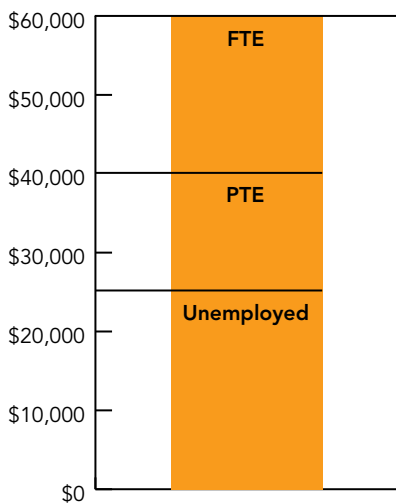
time meeting demands because they qualified for benefits denied those employed part-time, such as unemployment compensation, social service programs and loan forbearance. Finally, it may be that PTE participants had higher financial demands overall due to job-related expenses, such as transportation and professional fees, that unemployed participants did not have.

### Debt & Employment Status

To further explore how employment helps or falls short of young adults' ability to manage their financial obligations, we took a closer look at income and debt among employed and unemployed participants (excluding graduate students working part-time).

On average, FTE participants indicated a \$40,000 to \$60,000 annual income range — significantly more than the range indicated by PTE participants: \$25,000 to \$40,000. Unsurprisingly, unemployed participants indicated the lowest income range of less than \$25,000.

**Fig. 6: Annual Income**

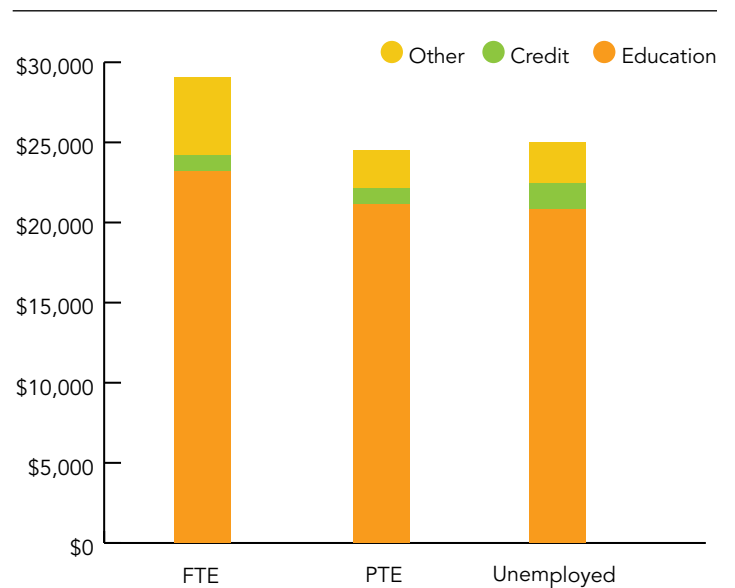


We also looked at debt obligations within each of these groups (Fig. 7) and found that, although total debt among FTE participants was higher, the difference was not significant compared to PTE and unemployed participants. Neither were there significant differences between groups in terms of their credit card debt or educational loan debt.

“Other debt” was the only category significantly different between groups, with FTE participants averaging \$4,900 compared to roughly \$2,500 for both PTE and unemployed participants. That difference may be due to the initial costs associated with employment (e.g., transportation, professional attire). It may also be that FTE participants accumulated higher “other debt” because they had an inflated sense of their ability to manage debt leading to less responsible consumption.

Combining this finding with those of Table 2 — the groups' varying difficulty in paying their bills — our data showed that insufficient income, not excessive relative debt, accounted for PTE and unemployed young adults having a harder time meeting financial demands compared to FTE participants.

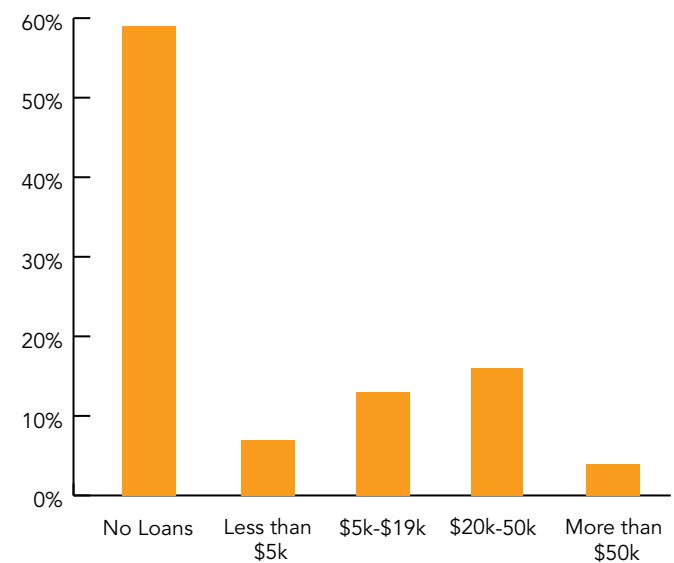
**Fig. 7: Debt by Employment Status**



### A Closer Look at Student Loan Debt

The Project on Student Loan Debt (Reed & Cochrane, 2013) reports that two-thirds of college seniors will leave college with an average \$26,600 in student loans. The picture was somewhat better for APLUS participants, for whom undergraduate loans averaged \$22,725, likely resulting from the high percentage of participants who completed their educations at a public university — the University of Arizona or another public school to which they transferred during the APLUS study. Notably, less than 1% of participants' reported student loans in default. Also notable, by the time of our survey, a full 59% of the sample was free of student loans (Fig. 8).

**Fig. 8: Distribution of Student Loan Debt**

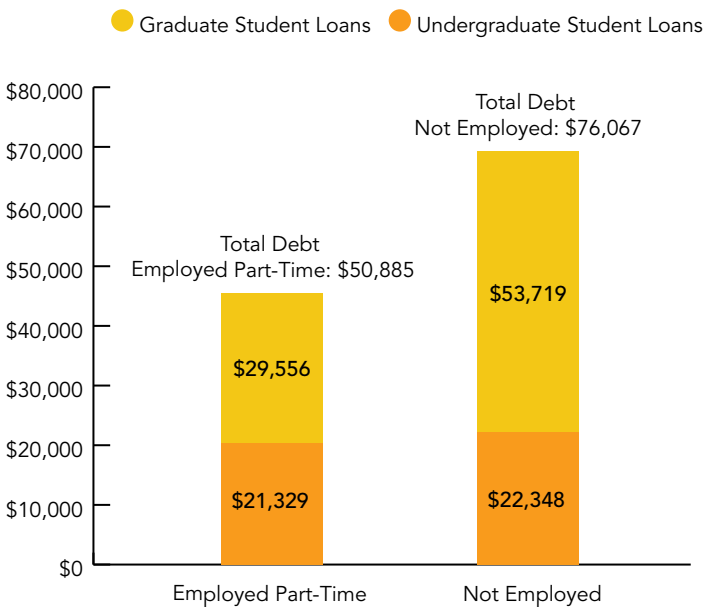


Recent reports have found that students of color and students from low-income families typically have higher student loan debt (Hiltonsmith, 2013). In our sample, however, student loan debt did not differ by family SES or by ethnicity.

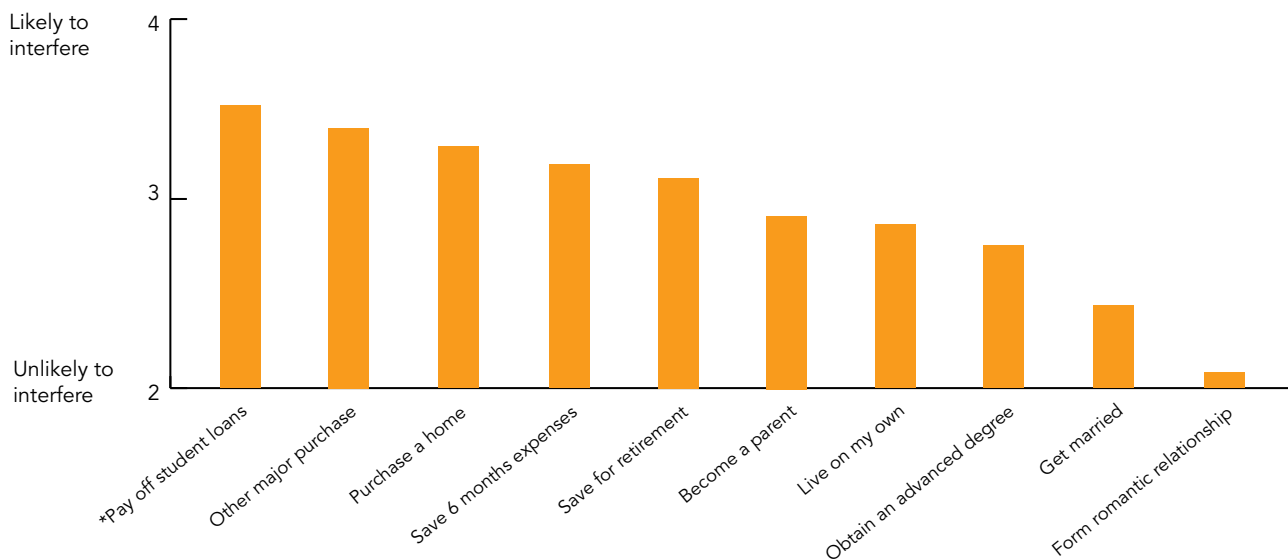
### Ballooning Debt in Graduate Education

We also looked at the distribution of student loan debt among those enrolled in graduate school. Total student loan debt more than doubled for those working while in graduate school, from \$21,329 to \$50,885, and more than tripled for those not working, from \$22,348 to \$76,067 (Fig. 9). Again, we found no significant differences by family social class or ethnic group.

**Fig. 9: Total Student Loan Debt Among Graduate Students**



**Fig. 10: Finances Interfering with Important Goals**



\*Note: Excludes participants with no student loan debt.

## Finances & Life Goals

Financial challenges, including paying off the cost of college, contribute to delays in reaching life goals and milestones historically associated with adulthood for many young adults (Pew Research Center, 2012).

To assess how this dynamic affected our participants, we asked them the extent to which their financial circumstances interfered with 10 goals related to relationships, finances, education and living independently using a 5-point scale, with 5 indicating greater interference (Fig. 10). The pattern was the same whether or not participants were receiving financial support from parents.

Not surprisingly, participants reported their finances interfered most with financial goals (paying off student loans, making major purchases, purchasing a home, saving). They felt their finances were least likely to interfere with forming significant romantic relationships.

In exploring this dynamic, we also asked participants to indicate if any of the goals listed were unimportant, i.e., goals for which an “interference” rating was not applicable (Fig. 11).

More than a fourth of participants indicated marriage and having children were not important (28% and 27% respectively); 19% felt home ownership was not important, and 16% rated living on their own as unimportant.

Whether these findings represent an adjustment to a “new normal,” a genuine value shift among today’s young adults, or just a change in beliefs about how soon these traditional milestones are important (Pew Research Center, 2012), the opinions are likely to have profound social and economic impacts.



### Financial Independence as a Goal

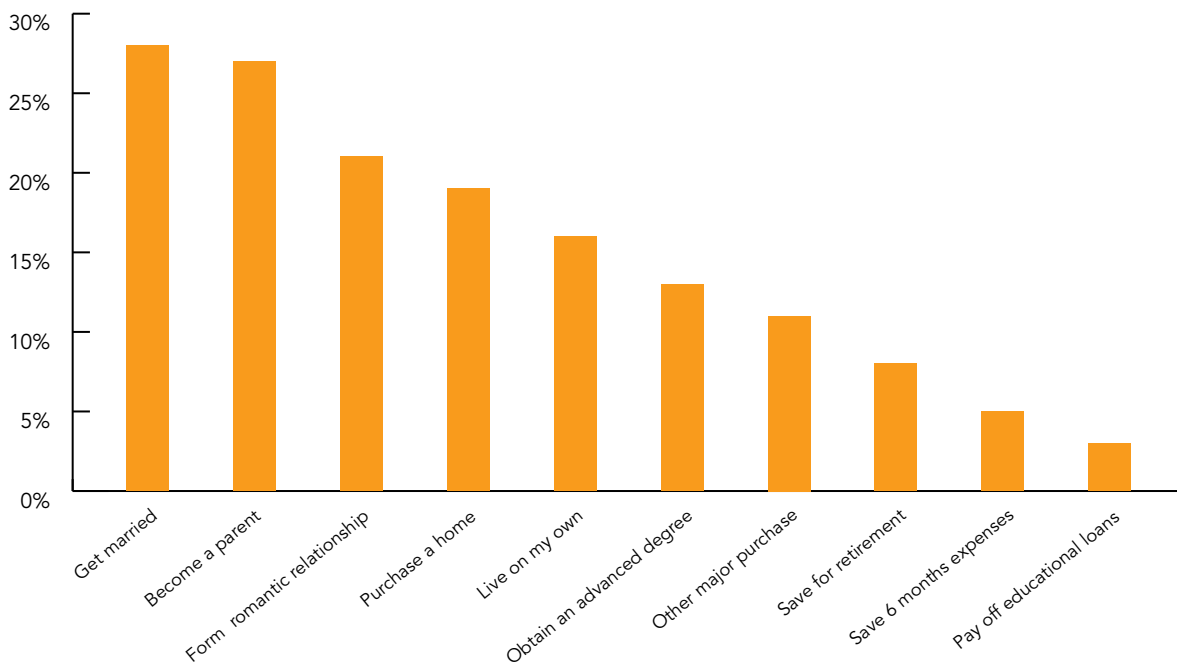
Underlying many of these explorations is the question of the trajectory to financial independence. In their fourth year of college, Wave 2 of the APLUS study, 95% of participants said achieving that independence was an important goal.

Two years out of college, with so many participants challenged to meet financial demands on their own regardless of their employment status, did that sentiment change? In fact, it dropped significantly, but 91% still saw financial independence as important to them.

An important goal or not, participants overall felt financial independence was closer, with 98% expecting to reach it within 10 years (90% within 5 years), compared to 96% saying the same at Wave 2. However, a small but sobering higher percentage felt it unlikely they would ever achieve financial independence: 2%.

Although only 2% of the participants thought it unlikely that they would ever be financially independent, that percentage is more than three times that of two years earlier: 2% vs. the 0.6% at Wave 2. If participants continue to find themselves unable to meet their financial obligations, we would expect this trend towards a darker outlook to continue.

Fig. 11: Life Goals “Not Important” to Participants



# Changing Financial Capability

Earlier in the APLUS study, we conceptualized financial capability as the financial knowledge, financial agency, and financial behaviors needed to manage adult responsibilities to achieve financial self-sufficiency (Serido et al., 2013).

## Growing Financial Knowledge

Financial knowledge — factual knowledge about and an understanding of financial concepts — helps individuals make sound financial decisions (Hilgert et al., 2003; Shim et al., 2010). Over the five years of this study, we have examined knowledge among participants in two dimensions:

- Objective knowledge — measured by 15 true/false questions on basic financial information, e.g., “The finance charge on your credit card statement is what you pay in order to use credit”;
- Subjective knowledge — self-assessed financial knowledge on a scale from 1 (very low) to 5 (very high).

Looking at these measures over the three waves of APLUS data, we saw objective knowledge increase consistently while self-assessed knowledge increased then plateaued (Table 3).

**Table 3. Financial Knowledge Over Five Years**

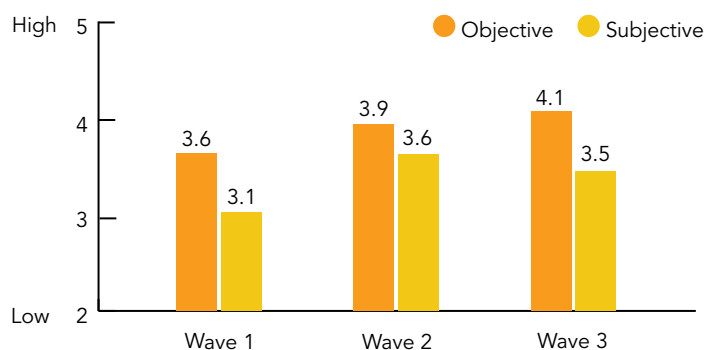
	First Year of College	Fourth Year of College	Two Years Later
Objective Knowledge Quiz Grade	66%	71%	75%
Self-Assessed Knowledge on a 5-Point Scale	3.1	3.6	3.5

Our data also show three other findings worth calling out:

- While objective and self-assessed knowledge improved for both men and women throughout all three waves, men maintained a small but significant lead in both measures;
- We also found no differences by ethnicity or SES in either objective or subjective knowledge across all three waves

- At Wave 3 only, both subjective and objective knowledge were higher for full-time employed participants compared to part-time employed participants.

**Fig. 12: Changes in Financial Knowledge**



To compare relative changes in objective and subjective knowledge, we converted objective knowledge scores to a five-point scale. Doing so revealed that gains in objective knowledge (knowledge about financial topics) outpaced those in self-assessed knowledge (Fig. 12).

This finding is consistent with the model of how young adults develop financial capability first introduced in the analysis of Wave 2 data for the APLUS study (Serido et al., 2013). In that model, changes in financial knowledge drove changes in financial “self-awareness.” It takes time and practice for young adults to internalize what they learn about personal finance, thus, we would expect self-assessed knowledge to somewhat lag behind objective knowledge.

However, with both objective and subjective knowledge improving on average, we conclude that as young adults gain experience making financial decisions, they are progressively learning more about personal finance, how it works, and why it is relevant to their lives.

## Fluctuating Competence: Changes in Personal Financial Agency

The ability to make good financial decisions takes more than financial knowledge. We believe that knowledge acts as the catalyst for developing “personal financial agency” — a set of positive ideas about finances and one’s ability to manage them. Among other objectives,



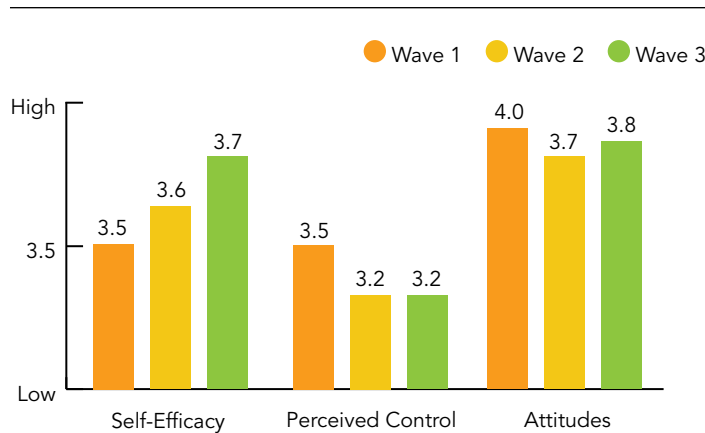
APLUS provides a vehicle for exploring how and why personal financial agency changes over time.

At each wave of the project, we asked participants a number of questions to get at three factors that are key to the personal financial agency construct:

- Efficacy — *Am I able to manage my finances in ways that get me closer to my goals?*
- Control — *Financially, do I control my circumstances or do they control me?*
- Attitudes — *Do I value and respect responsible financial behavior?*

Interestingly, we found differing patterns in these measures over time for all three factors (Fig. 13).

**Fig. 13: Personal Financial Agency Across Waves**



Participants’ assessments of their financial efficacy increased consistently at each wave, suggesting that as young adults gain experience making independent financial decisions, they feel more confident about the decisions they make (Jorgenson & Savla, 2010). While self-assessed efficacy increased consistently over time, perceived

financial control had declined by participants’ fourth year of college (2010) and remained at that lower rate two years later at Wave 3. The initial decline after Wave 1 may have been driven by economic turmoil following the 2008 financial crisis, when many parents cut their financial support as their home values, savings and investments declined and as many lost their jobs (Serido, et al., in press). The persistent soft labor market likely accounts for levels remaining low at Wave 3.

In contrast, after a sharp decline at Wave 2, financial attitudes improved significantly by Wave 3. Again, the financial crisis may have accounted for the sharp decline at Wave 2 — perhaps young adults questioned the value of acting responsibly in the face of tremendous loss and uncertainty. At the same time, two years on, as they assumed more responsibility for their own financial obligations, they may better recognize the value of and need for budgeting, saving and investing — a change reflected in more positive attitudes by Wave 3.

### Personal Financial Agency & Demographics

In addition to the analysis just presented, we probed further to see if personal financial agency differed by sociodemographic characteristics or career status but found only a handful of significant differences (Table 4):

- Ratings of financial efficacy were higher for men compared to women, for White participants compared to other ethnicities and for FTE compared to PTE participants
- Perceived financial control was higher among non-Hispanic ethnic minorities, compared to both White and Hispanic participants.

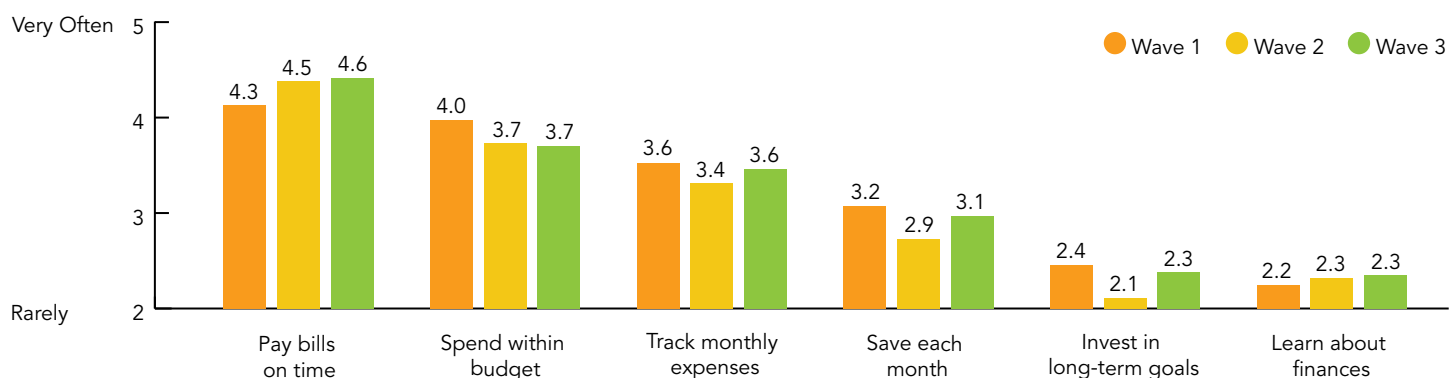
Notably, family socioeconomic status did not distinguish participants in any measure of financial agency. One possible explanation for this lack of differences is that the college experience provides opportunities for young adults to develop a sense of personal agency regardless of family background — a personal agency that may carry-over into the financial domain. This hypothesis could also be one of the explanations for the documented better financial decision-making among college-educated adults (FINRA, 2013).

**Table 4. Group Differences in Financial Agency**

	Men	Women	White	Hispanic	Other	FTE	PTE
Financial Self-Efficacy	3.92*	3.64	3.77 <sup>a</sup>	3.73	3.63 <sup>b</sup>	3.88 <sup>a</sup>	3.57
Perceived Financial Control	3.24	3.28	3.21 <sup>b</sup>	3.16 <sup>b</sup>	3.59 <sup>a</sup>	3.21	3.34
Financial Attitudes	3.79	3.87	3.88	3.76	3.76	3.88	3.76

Note: The asterisk (\*) indicates a significant difference between men and women. Letters (<sup>ab</sup>) indicate significant group differences.

**Fig. 14: Financial Behaviors Over Time**



### Changing Financial Behaviors Over Time

As historical social milestones such as marriage and parenthood become less consistent markers of a successful transition to adulthood, we believe that young adults’ financial behaviors may provide a more reliable alternative marker of adult status (Serido et al., 2013).

To measure financial behaviors, we asked participants how often they had engaged in six different activities in the past six months on a scale of 1 (never) to 5 (very often) (Fig. 14).

As the graphic shows, we found varying patterns for the different behaviors:

- Participants steadily got better at paying bills on time for a total 7% improvement by Wave 3;
- Learning about finances, though the lowest-ranked activity in each wave, also consistently improved for a total 5% improvement by Wave 3;
- Tracking expenses, saving and investing all showed a drop-and-rebound pattern, returning to roughly their original levels by Wave 3;
- Participants got steadily worse at spending within their budgets, for a total 7% decline by Wave 3.

Notably, we found no differences in behaviors according to gender, ethnicity or family socioeconomic status, either at Wave 3 or in patterns of change across waves.

### Financial Behaviors & Employment Status

Looking at financial behaviors grouped by employment status revealed interesting differences among participants at Wave 3 (Table 5): Namely, in Wave 3, FTE participants “broke from the pack” to engage in responsible financial behaviors more frequently compared to all groups except late launchers.

This finding in particular suggests a possibility often overlooked in discussions about financial capability: Financial education requires opportunity for practice to improve financial capability. Since opportunities often emerge from the economic and social conditions available to young adults (Shanahan et al., 2002), good financial decisions also require adequate financial resources.

### Young Adults’ Use of Financial Services & Tools

Similar to the importance of financial resources just noted, access to financial products and services is an important component of developing financial capability (Johnson & Sherraden, 2007). At Wave 2, in participants’ fourth year of college, 99% used a checking and savings account. As these were the only services included in that inquiry, we could not assess meaningful distinctions.

At Wave 3, however, we provided participants with an extended list of relevant financial services and products and asked them to indicate those for which they were financially responsible (Fig. 15).

At this stage of life, two years beyond their senior year of college, APLUS participants reported significant differences in their use of financial services and products:

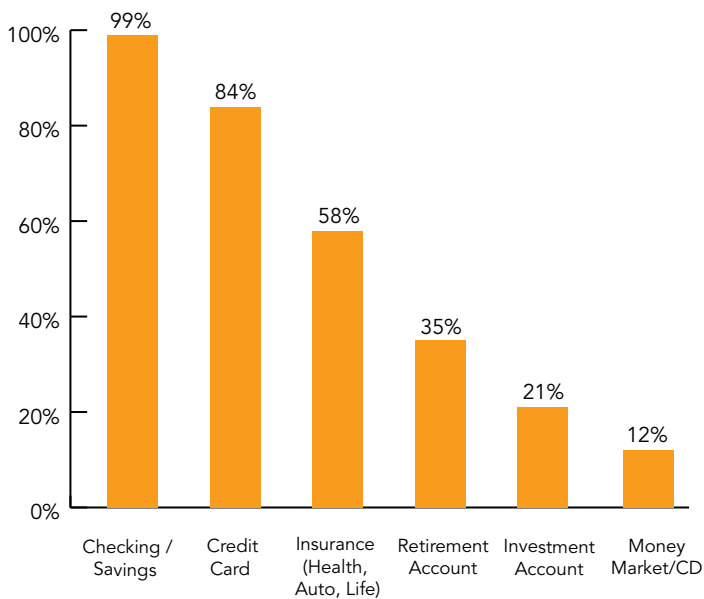
**Table 5. Financial Behavior by Career Status**

	FTE	PTE	Unemployed	Late Launchers	Graduate Student Working PT	Graduate Student Not Working
Wave 1 Behavior	3.30	3.27	3.23	3.19	3.35	3.33
Wave 2 Behavior	3.18	3.11	3.12	3.15	3.14	3.19
Wave 3 Behavior	3.45 <sup>a</sup>	3.06 <sup>b</sup>	3.07 <sup>b</sup>	3.26	3.07 <sup>b</sup>	3.05 <sup>b</sup>

Note: For this comparison, we created a composite financial variable representing the average of scores for the six financial behaviors; letters (abc) indicate significant differences between groups.



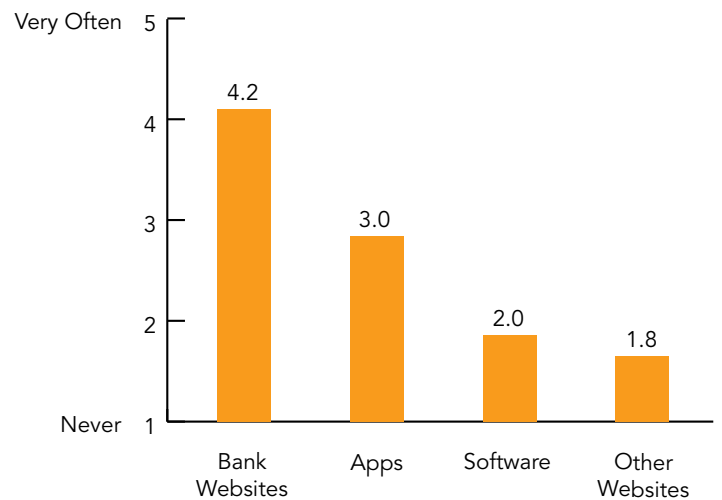
**Fig. 15: Participants' Access To Financial Services**



- As before, the vast majority (99%) of participants had checking and savings accounts;
- Most of the participants (84%) were financially responsible for a credit card;
- A small majority (58%) was financially responsible for one or more insurance products;
- More than a third of participants had retirement accounts (75% among FTE participants);
- Less than 1% reported being financially responsible for a prepaid card (not shown).

Rating their frequency of use on a scale from 1 (never) to 5 (very often), APLUS participants reported relying most heavily on banking websites compared to other financial tools for managing personal finances, such as apps, software programs or non-bank online services like Mint.com (Fig. 16).

**Fig. 16: Use of Financial Tools**



# Changing Well-Being & Happiness

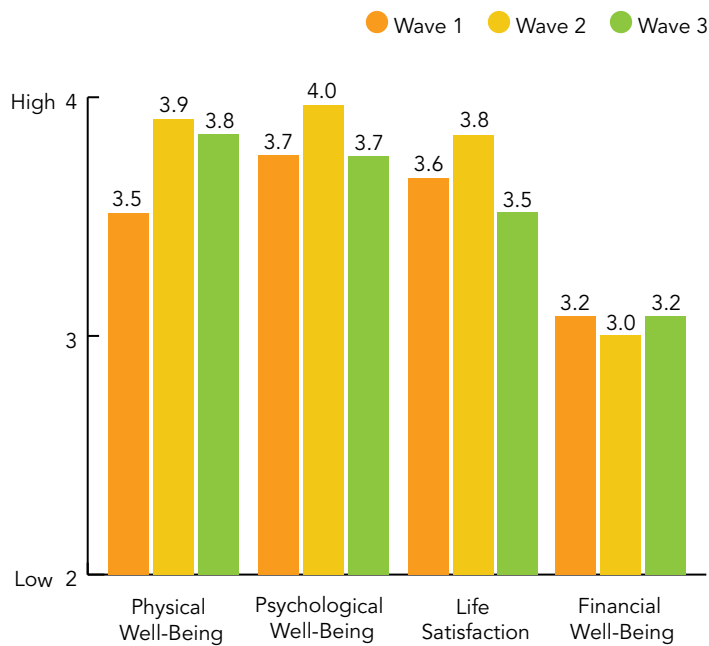
Historically, individuals are pretty happy as they begin their adult lives (The Economist, 2010). As they approach mid-life, happiness declines, climbing again as they approach older-age. This U-bend pattern of happiness has been observed across countries and cultures. Happiness, however, may be defined in many ways.

We define happiness as self-perceptions of well-being and satisfaction in multiple areas of life (Nickerson et al., 2007). Across the waves of the APLUS study, we have looked at three specific areas of well-being — physical, psychological, and financial — as well as a single broad measure of life satisfaction, all measured on a low-to-high 5-point scale.

## Changes in Well-being Over Time

Previous studies find that well-being declines during severe economic recessions (Tausig & Fenwick, 1999), with lack of job security and lower salaries accounting for those declines. Thus, it is not surprising to find that while APLUS participants at Wave 3 are starting their adult lives with high levels of physical well-being (M= 3.84), they have significantly lower levels of financial well-being (M=3.17). Also not surprisingly, psychological well-being and life satisfaction have declined since our first wave of data in 2008 (Fig. 17).

**Fig. 17: Changes in Well-Being**



- Two years on, psychological well-being and life satisfaction declined an average of 6%;
- Life satisfaction was significantly lower than during the first year of college;
- Physical health declined 2%, but remained higher than in the first year of college;
- Financial well-being rose 3% after a Wave 2 dive, leaving it still 2% lower than at Wave 1.

The drop after the senior-year (Wave 2) peak in three well-being measures (physical, psychological and life satisfaction) may reflect adjusting to life after college. In contrast, average improvement in financial well-being likely reflects an ongoing source of income, or at least the potential for one.

## Financial Stability & Well-Being

The reach of the 2007 recession and global economic crisis has stretched well-beyond previous economic downturns, impacting well-being worldwide (Osberg & Sharpe, 2012), and a lack of financial stability erodes well-being, even among individuals who are not living in extreme poverty (Adler et al., 1994). We would, therefore, expect to find this erosion among APLUS participants.

## Employment Status & Well-Being

Given that the APLUS participants are seeking to establish their careers in a challenging job market, we looked at career status as one dimension of financial stability to probe differences in well-being among APLUS participants (Table 6).

**Table 6. Employment Status & Domains of Well-Being**

	Overall	FTE	PTE	Unemployed	Late Launchers	Graduate Student Working PT	Graduate Student Not Working
Physical Well-Being	3.83	3.90	3.77	3.74	3.71	3.80	3.80
Psychological Well-Being	3.74	3.79	3.60	3.52	3.95	3.74	3.87
Life Satisfaction	3.54	3.62 <sup>b</sup>	3.23 <sup>c</sup>	3.09 <sup>c</sup>	3.89 <sup>ab</sup>	3.63 <sup>ab</sup>	3.79 <sup>ab</sup>
Financial Well-Being	3.15	3.39 <sup>a</sup>	2.86 <sup>bc</sup>	2.49 <sup>c</sup>	3.28 <sup>ab</sup>	2.99 <sup>b</sup>	3.03 <sup>b</sup>

Note: Letters <sup>(abc)</sup> indicate significant group differences.

- Employment status did not differentiate between groups with respect to physical well-being or psychological well-being;
- The difference in reported financial well-being might be expected: higher among FTE participants compared to the other groups;
- Compared to FTE participants, life satisfaction was 11% lower for PTE participants and 15% lower for those who were unemployed.

While these gaps are significant, the more striking findings were the smaller yet significant differences in life satisfaction between FTE participants and non-jobseekers:

- For graduate students not working, life satisfaction was 5% higher compared to FTE participants;
- For the Late Launchers — those neither in grad school nor looking for employment — life satisfaction was 7% higher compared to FTE participants.

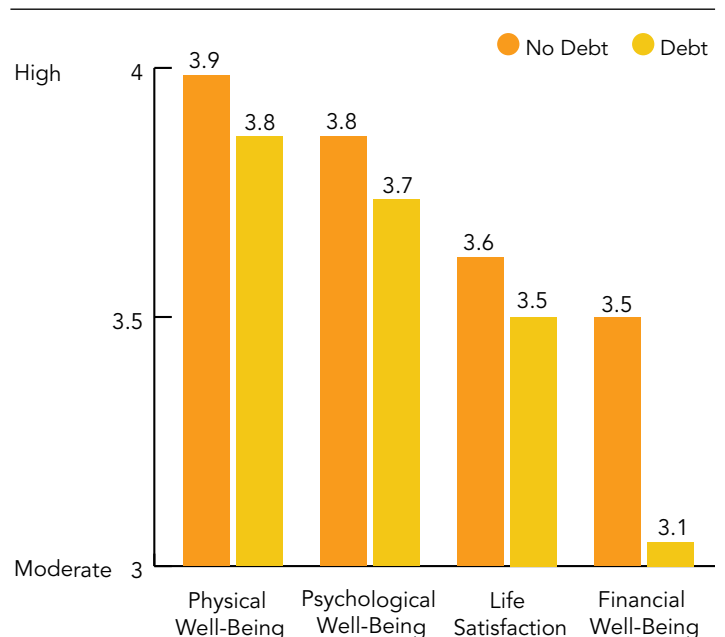
While the finding is noteworthy, we expect it to fade over time, either as graduate students and Late Launchers enter the work world or, for those who don't, as protracted delays in achieving financial independence erode life satisfaction.

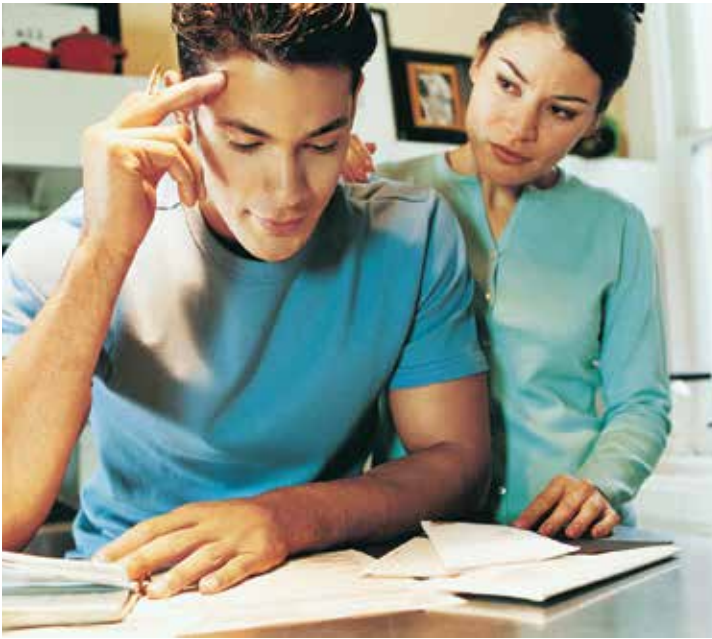
## Debt & Well-Being

Because the presence or absence of debt obligations impacts well-being (Vlaev & Elliott, 2013), we looked at the relation between debt and domains of well-being. Since so many APLUS participants (40%) had no outstanding debt, we divided the participants into groups of those with or without debt.

In every domain of well-being, participants who were debt-free fared significantly better than those who had debt (Fig. 18). The effects were most apparent in life satisfaction and financial well-being.

**Fig. 18: Effect of Debt On Well-Being**





To see if income might counter-balance the effects of debt on well-being, we also looked at the relationship of both employment status and debt level on domains of well-being (Table 7).

**Table 7. Employment Status & Debt Related to Domains of Well-Being**

	No Debt			Debt		
	FTE	PTE	Unemployed	FTE	PTE	Unemployed
Physical Well-Being	4.02	3.83	3.75	3.84	3.73	3.73
Psychological Well-Being	3.86	3.60	3.54	3.75	3.61	3.51
Life Satisfaction	3.73 <sup>a</sup>	3.40 <sup>b</sup>	3.45 <sup>bc</sup>	3.57 <sup>b</sup>	3.13 <sup>cd</sup>	3.09 <sup>d</sup>
Financial Well-Being	3.81 <sup>a</sup>	3.24 <sup>ab</sup>	3.08 <sup>abc</sup>	3.17 <sup>a</sup>	2.64 <sup>b</sup>	2.11 <sup>c</sup>

Note: Letters (<sup>abcd</sup>) indicate significant group differences across both no debt and debt categories.

In doing so, we found that regardless of whether participants were employed full-time, part-time or unemployed, debt was associated with lower physical and psychological well-being. Employment status did, however, reveal a difference in associations between debt and both life satisfaction and financial well-being. Compared to participants with no debt:

- Life satisfaction was 4% lower for FTE participants with debt;
- It was also 8% lower for PTE participants with debt;
- Most significantly, it was 10% lower for the unemployed carrying debt.

Not surprisingly, the differences were even greater regarding financial well-being: Compared to participants with no debt:

- Financial well-being was 17% lower for FTE participants with debt;

- It was 19% lower for PTE participants with debt;
- Most pronounced, it was 31% lower for the unemployed with debt.

While previous research finds that greater satisfaction within each domain of life contributes to increased overall well-being (Easterlin, 2006), our findings looking at the differences between areas of well-being raise a different question: Over time, does decreased satisfaction in one domain of life chip away at overall well-being?

It makes sense that a lack of financial stability relates to diminished financial well-being. But as our results suggest, there might also be a domino effect, whereby diminished financial well-being over time first erodes life satisfaction, then psychological well-being and ultimately physical well-being. We will examine these possibilities more closely in our next wave of APLUS data collection.

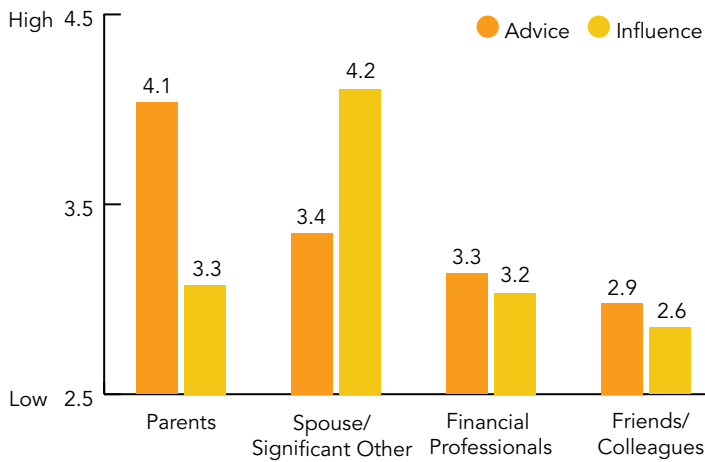
# Sources of Financial Advice & Influence

As young adults mature, they encounter new and challenging situations. This may be particularly true when it comes to financial matters. As the APLUS participants age and face more complex financial choices, who do they look to for information and advice?

## Advisors & Influencers

We first asked participants to indicate the likelihood that they would seek advice from different people on a scale from 1 (very unlikely) to 5 (very likely). Consistent with our earlier findings, parents continued to play an important role as the most likely source of financial advice among the participants. In contrast, friends and colleagues were the least likely source of advice (Fig. 19).

**Fig. 19: Sources of Financial Advice and Influence**

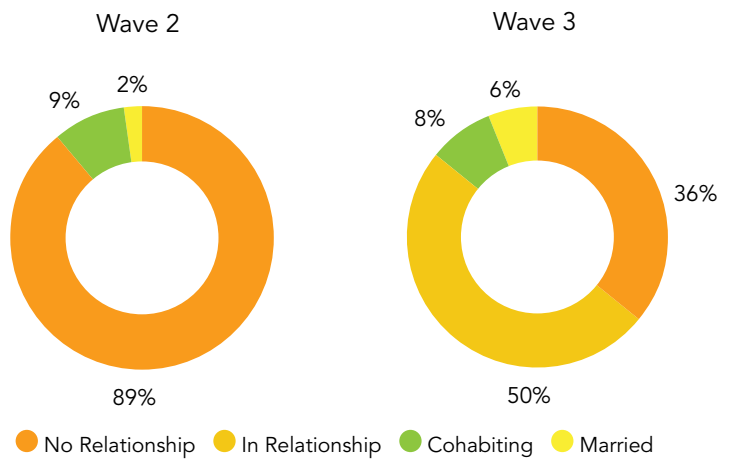


We also asked participants to rate how much these same people influenced their financial behaviors on a scale from 1 (no influence) to 5 (strong influence) (Fig. 19). Here, parents came in second to spouses or significant others, whether or not participants were receiving financial support from their parents.

This change most likely reflects the fact that young adults at this stage of life are spending less time with their parents and increasingly more time with people outside their families (Arnett & Jensen, 2002), especially romantic partners. The 80% increase in participants in a committed relationship by Wave 3 — from 11% to 64% (Fig. 20) — supports this possibility.

A final note on influencers: participants rated the influence of financial professionals comparable to that of their parents, with no significant differences by employment status or sociodemographic factors. This

**Fig. 20: Relationship Types of Participants at Wave 2 and Wave 3**



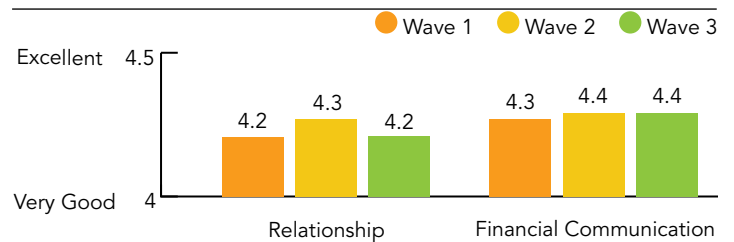
finding suggests that increasing understanding of the need for sound financial management is prompting participants to seek information from financial professionals. At the same time, we should consider that participants are by now well aware that they are part of a study of financial attitudes and behaviors and may be more likely to see the value of professional advice compared to their non-APLUS peers.

## Relationships Between Young Adults & Their Parents

As young adults gain independence, relationships with their parents shift to more peer-like relationships between adults (Tanner, 2006). How do the nature and tone of those parent-adult child interactions change?

To answer this question, we looked at the quality of their relationships in general as well as how participants rated the quality of financial communication with their parents (Fig. 21). At each wave of data, both items were measured on a scale from 1 (poor) to 5 (excellent).

**Fig. 21: Interactions With Parents Over Time**





Overall, participants rated the general quality of their relationships with their parents consistently high throughout the APLUS study to date. Ratings peaked at Wave 2, then returned to earlier levels at Wave 3. The post-college decline was sharper among men than women, but we found no other differences by sociodemographic factors or employment status.

Participants also rated the quality of their financial communications with parents consistently high over the study period, with higher scores at each wave. We find no sociodemographic differences in these measures, but do observe different patterns within employment status (Table 8):

Assuming the nature of full-time work while in college changed for many of the FTE participants after college, the significant jump in the quality of financial communications they reported at Wave 3 likely reflects the changing nature of financial choices and opportunities that accompany career jobs, such as retirement investing and insurance options.

It is also worth noting that the earlier-discussed lack of financial stability among PTE and unemployed participants did not erode the quality of financial communications with their parents. Parents may attribute the lack of full-time work for these groups to external circumstances (e.g., soft labor market) rather than lack of effort.

**Table 8. Financial Communications with Parents by Employment Status**

	FTE	PTE	Unemployed	Late Launchers	Graduate Student Working PT	Graduate Student Not Working
Wave 1	4.35 <sup>a</sup>	4.37	4.11	4.32 <sup>a</sup>	4.28	4.31 <sup>a</sup>
Wave 2	4.35 <sup>a</sup>	4.29	4.26	4.50 <sup>b</sup>	4.39	4.57 <sup>b</sup>
Wave 3	4.47 <sup>b</sup>	4.24	4.25	4.54 <sup>c</sup>	4.37	4.43 <sup>c</sup>

Note: Letters <sup>(abc)</sup> indicate group differences by wave within employment status.

- For FTE participants, communication quality was steady throughout college until it jumped significantly post-college at Wave 3;
- For Late Launchers currently not looking for a job, communications have improved steadily and significantly;
- For graduate students not working, communication quality peaked at the end of their undergraduate studies, then dropped to a rating still higher than at Wave 1;
- PTE participants, unemployed participants and graduate students working part-time reported varying quality at each wave of the study, but the differences were statistically insignificant.

Whatever their perspective, we know that — at least in the short term — parents continue to provide emotional and financial support to their young adult children, regardless of their children’s employment status.

### The Growing Importance of Romantic Relationships

Historically, young adulthood is a time for forming committed relationships. Although marriage rates have declined, rates of cohabiting have increased: 45–66% of adults in the U.S now cohabit (Cherlin, 2010).

Studies often find that conflicts over financial issues impact relationship quality and stability (Dew, 2007; Papp et al., 2009). We wondered, then,



if conflict might emerge from differences in the way partners talk about finances or differences in their financial behaviors.

To explore this question, we looked at participants' assessment of relationship quality, financial communications and financial behaviors — their own and those of their romantic partners:

- Relationship Quality — satisfaction with romantic partners on a 7-point scale (1=extremely dissatisfied to 7=extremely satisfied) (Schumm et al., 1986);
- Financial Communication — how much participants agree with their partners about finances on a scale from 1 (strongly disagree) to 5 (strongly agree);
- Financial Behaviors — how often participants and their partners have engaged in certain positive financial behaviors in the past six months on a scale from 1 (never) to 5 (very often).

Since type of relationship (living apart, cohabiting, married) may affect relationship quality (Stanley et al., 2006), we examined these associations separately, excluding those not in a committed relationship (Table 9).

**Table 9. Relationship Quality, Communications & Behaviors**

	In Relationship	Cohabiting	Married
Relationship Quality	4.23	4.44	4.53
Financial Communication	4.42	4.43	4.4
Partners' Financial Behavior	3.31	3.39	3.58
Participants' Financial Behavior	3.11	3.17	3.25

Note: Excludes participants not in a committed romantic relationship.



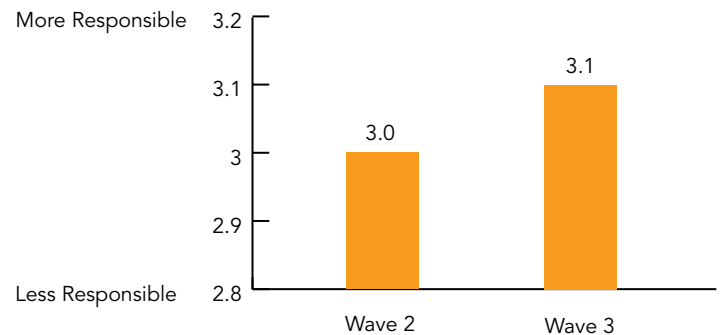
There were no differences between these groups in terms of relationship quality or financial communication quality.

Interestingly, participants consistently rated their partners' financial behaviors as significantly better than their own behaviors, irrespective of the relationship structure.

Since young adults often re-assess their resources and change their behaviors in response to new social roles (Shulman et al., 2013), we wondered if we would observe a difference in financial behaviors associated with a change in relationship status.

To examine this possibility, we looked at a subset of participants who had entered a committed relationship between Waves 2 and 3. For this group, change in relationship status was associated with an average 5% improvement in financial behaviors (Fig. 22), suggesting that being in a committed relationship — at least in the early stages of one — is associated with better financial behaviors.

**Fig. 22: Financial Behaviors After Change in Relationship Status**



# Five Years Later: Pathways to Life Success

One of the great challenges of scientific research is moving beyond correlations — A varies with B — to understanding cause and effect: A causes B. Herein lies the power of a longitudinal study such as APLUS.

Establishing causation within an inquiry at a single point in time requires control groups and randomized interventions. However, longitudinal research looks at data points for the same person over time. This approach allows us to model the processes that could be shaping outcomes, ruling out plausible alternative explanations to infer causation among the APLUS participants.

In this third wave of data in the APLUS study, we can begin to confidently move beyond describing correlations to showing that certain factors such as level of financial education or attitudes towards personal finances — qualities that characterized our late-teen participants in 2008 — helped drive profoundly different outcomes for our twenty-something young adults in 2013.

## Connecting Capability, Identity & Outcomes

In Wave 2, with APLUS participants in their fourth year of college, we developed a model to explain the pathways to financial capability: Financial socialization and financial knowledge contribute to financial awareness, which in turn promotes financial behavior (Serido et al., 2013; Shim et al., in press).

We also identified three financial identity styles (Shim et al., 2013), representing participants' view of their own money management preferences and the relation between financial identity style and financial capability.

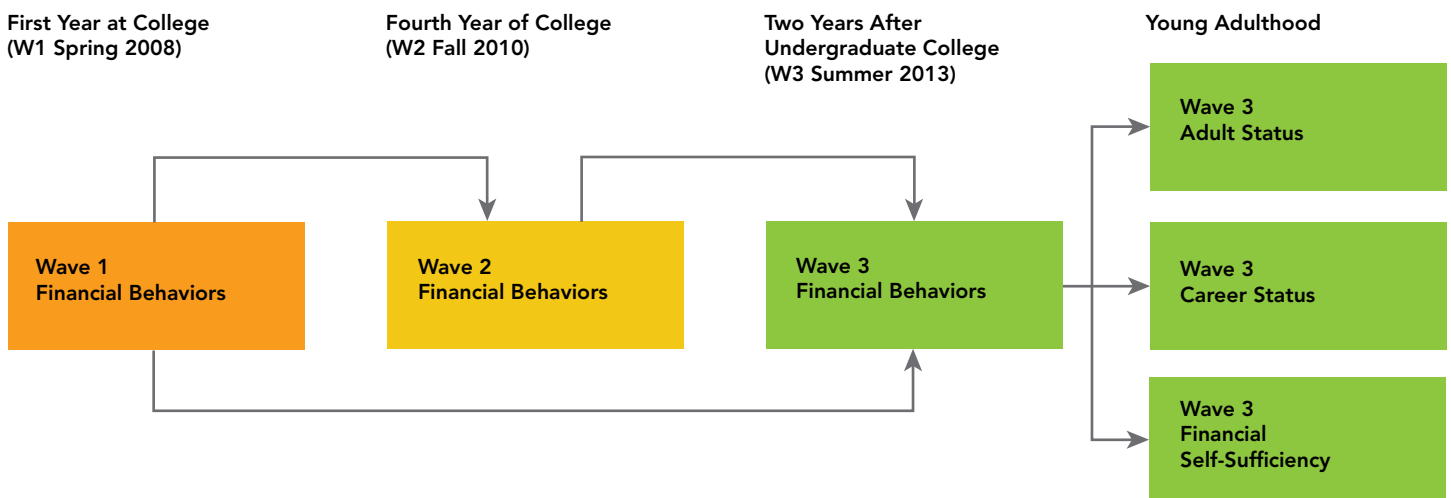
In Wave 3, we combined the findings from these two studies to focus on our fundamental belief that there is a connection between college financial behaviors and successful adult outcomes. That is, we predicted that more responsible financial behaviors practiced during college would be associated with higher self-assessed adult status and more advanced career status after graduating from college.

From this perspective, we asked ourselves three questions:

- Are there distinctive patterns to the financial behaviors of the APLUS participants?
- If so, what is the relation between these patterns and Wave 3 outcomes?
- Finally, beyond behaviors, what factors help shape pathways to success?

To answer these questions, we first describe the pathway from early college to early adulthood focusing on financial behaviors practiced over a five-year period (Fig. 23).

**Fig. 23: Pathways to Young Adulthood through Financial Behaviors**



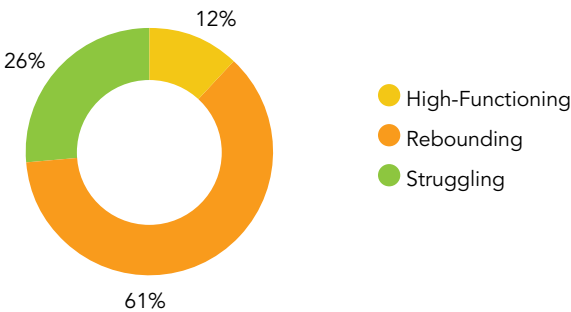
The items in the model, described in earlier sections of this report, include:

- Financial behaviors at each wave — how often participants’ engaged in six financial behaviors (higher values indicating more frequent responsible actions)
- How those behaviors informed our understanding of participants’ lives two years beyond their undergraduate college senior years (again, higher values signaling better outcomes):
  - > Adult status — perceived progress toward adulthood on a scale of 1 to 5
  - > Career status — unemployed, employed full-time or employed part-time/in school
  - > Financial self-sufficiency — borrowing outside family, receiving help from family/spouse, meeting financial obligations on their own

### Overarching Patterns of Behavior

In testing the model, we have the answer to our first question: APLUS participants do show distinctive patterns of financial behaviors over the past five years, clustering in three groups (Fig. 24).

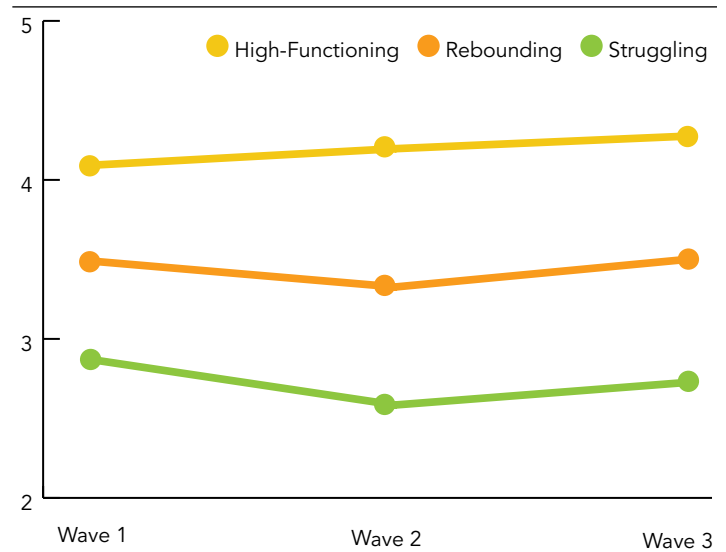
**Fig. 24: Young Adult Financial Behavior Categories**



Looking more closely at the behaviors in each group, we then named them— High-Functioning, Rebounding and Struggling — reminiscent of the labels based on financial identity explored in Wave 2. Here, however, we identify groups aligned not with participants’ financial identity styles but on how their financial behaviors improved or worsened over time (Fig. 25):

- The smallest group, High-Functioning participants (12%), reported highly responsible financial behaviors throughout college and beyond;
- The largest group, Rebounding participants (61%), started college with moderately responsible financial behaviors that had declined significantly by their fourth year, then recovered by Wave 3;
- Finally, an alarming number of participants were Struggling (26%), having started college with irresponsible financial behaviors that later worsened and had only slightly improved at Wave 3.

**Fig. 25: Financial Behavior Patterns Over Time**



### Behavior Patterns & Outcomes

In answer to our second question, regarding the relationship between behavior patterns and young adult outcomes among the APLUS participants, we uncovered several significant associations (Table 10).

**Table 10. Outcome Differences by Patterns of Financial Behavior**

	High-Functioning	Rebounding	Struggling
Adult Status	4.01 <sup>a</sup>	3.81 <sup>b</sup>	3.65 <sup>c</sup>
Career Status	2.51 <sup>a</sup>	2.50 <sup>a</sup>	2.30 <sup>b</sup>
Financial Self-Sufficiency	2.37 <sup>a</sup>	2.16 <sup>b</sup>	2.00 <sup>a</sup>

Note: Letters <sup>(abc)</sup> indicate significant group differences.

Looking at these outcomes — varying levels of adult status, employment status and financial self-sufficiency — across the three distinct groups of participants, we found that:

- **High-Functioning** participants had the best outcomes so far, demonstrating a clear link between responsible financial behaviors in late adolescence and a smoother transition to adulthood;
- **Rebounding** participants were comparable to or just below the High-Functioning group, possibly showing learning from their mistakes after their behavioral declines in their fourth year of college;
- Not surprisingly, **Struggling** participants — defined by their significantly worse financial behaviors at every wave — also significantly lagged behind the other two groups on all three outcomes.

## What Differentiates the Pathways to Young-Adult Success?

If a smooth transition to adulthood is an indicator of future success (Eccles et al., 2003), it is important to understand what sets young adults on a particular pathway. Since 61% of APLUS participants clustered into the Rebounding group, we considered that to be the normative pathway for young adults today:

- They are making better progress towards self-sufficiency compared to the Struggling participants;
- At the same time, they have not yet attained the stability of the High-Functioning minority.

Given this norm, we explored what differentiated the pathways leading to the other groups: What earlier factors accounted for young adults falling into either the High-Functioning or Struggling patterns rather than the majority Rebounding pattern?

To probe these questions, we looked at participants' sociodemographic characteristics as well as the Wave 1 values of factors associated with varying levels of financial capability at Wave 2 (Serido et al., 2013) that also differentiated the three Financial Identity Styles (Shim et al., 2013):

- Sociodemographic characteristics (gender, ethnicity and family SES)
- Financial knowledge, both objective and subjective
- Personal financial agency — attitudes, perceived efficacy and perceived control
- Financial socialization, through parents, financial education and work experience

We first compared the High-Functioning group to the Rebounding norm to find four differentiators (Fig. 26, green arrow). Compared to today's Rebounding participants, participants who went on to become High-Functioning were, in their first year of college, more likely to have had (in order of importance):

1. **Better attitudes** about acting responsibly in their financial behaviors
2. **Higher perceived parental expectations** about responsible financial behaviors
3. **Higher perceived control** over their finances
4. **More financial education** through personal finance or economics classes

We also compared Struggling participants to the Rebounding norm to again find differentiators, some overlapping the factors that also distinguished the High-Functioning group (Fig. 26, orange arrow). Here, we found that compared to today's Rebounding participants,

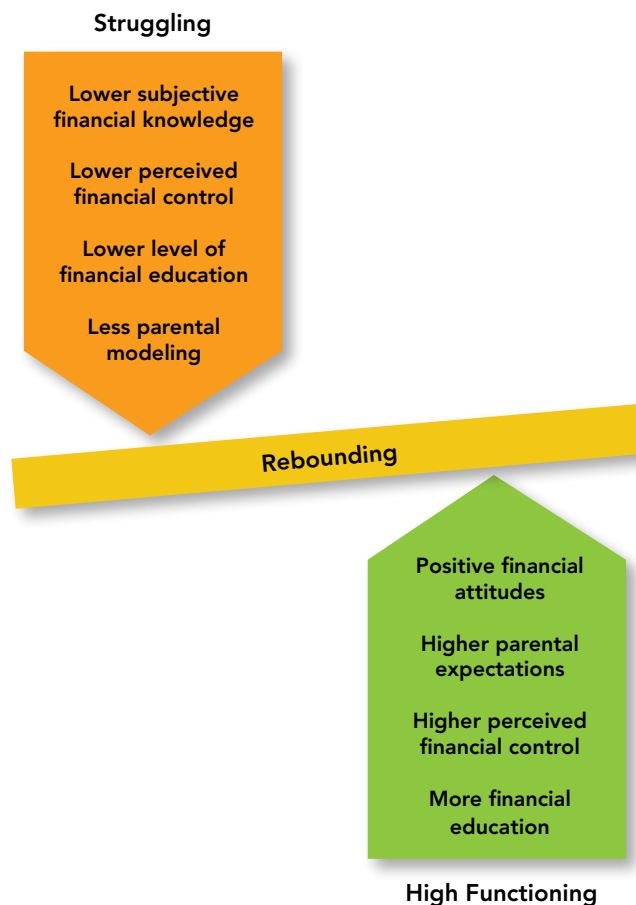
those who ended up as Struggling were more likely, in their first year of college, to have had (in order of importance):

1. **Lower subjective knowledge** about financial topics
2. **Lower perceived control** over their finances
3. **Less financial education** in the form of personal finance or economics classes
4. **Lower perceived parental role-modeling** related to personal finances

Thus, we conclude this report on our Wave 3 findings with three important observations about the young adults in the APLUS sample:

- First, our research demonstrates the importance of healthy financial behaviors for a smoother transition to young adulthood, regardless of gender, ethnicity or family socioeconomic status;
- In addition, this research illuminates a large segment of young adults who are at-risk for continued financial instability without additional support or assistance;
- Finally, our findings offer insights for how to better identify young adults most in need and design effective interventions by targeting the factors that will cause them to later lag behind their peers.

Fig. 26: Early Differentiators of Young Adult Success



# Summary

Maturing can be defined as an unfolding process of navigating age-graded challenges to prepare for the more complex life-choices and decisions of later life (Eccles et al., 2003). From this perspective, we suggest that positive outcomes during the transition to young adulthood — the life-stage of participants at this third wave of APLUS research — form the foundation for success later in adult life.

Our findings suggest that achieving financial self-sufficiency, a key developmental challenge of young adulthood, may be driven by financial behaviors practiced during emerging adulthood. For APLUS participants, distinct behavior patterns were shown to influence three developmental trajectories, representing progress towards successful young adult outcomes; what distinguished these trajectories were different combinations of financial understanding, socialization and agency.

For High-Functioning young adults, whether employed full-time or part-time, responsible early financial practices paved the way for a smoother transition to adulthood. As a group, they reported strong financial agency and positive financial attitudes, backed by high parental expectations and formal financial education. These are young adults poised for continued success, though at just 12% of participants, they are a minority among APLUS participants.

With less responsible behaviors early on, Rebounding participants saw lower levels of financial self-sufficiency and sense of adulthood but fared comparably to High-Functioning young adults in terms of employment status. Their declining behaviors throughout college seem to have functioned as a learning experience, leading them to adjust behaviors upward after college. In this sense, even imprudent choices may serve as a wake-up call, leading young adults to take a more active interest in managing their finances, driving better financial decision-making in the future.

Sadly, outside these two groups is roughly a fourth of APLUS participants — Struggling young adults whose behaviors started out poor and got worse, recovering only slightly after college. Lacking financial education as a basis for managing personal finances (Serido et al., 2013), they also reported the lowest levels of financial parenting and the lowest assessments of their financial knowledge. Not surprisingly, they feel little financial control: Instead of managing their money, it manages them. Research on the Great Depression has shown that many young adults who then struggled to establish their careers never achieved the financial self-sufficiency of their peers (Elder, 1974). Without support or assistance, this same fate may lie in wait for Struggling young adults today. Once these young adults are out of school, however, how do we reach them? Although the benefits and

costs of school-based financial education are often debated, one thing is clear: without investing in early financial education, the subsequent costs to individuals, their families, and communities may be much greater.

Overall, however, we find that APLUS participants are making progress toward self-sufficiency and adult goals, finding ways to adapt to changing economic and social conditions. Since labor markets contribute directly to one's financial stability (Briscoe et al., 2012), we were not surprised to find that participants employed full-time faced fewer challenges than other groups. We were, however, surprised to find that only a third of them reported being financially self-sufficient, meaning many of them were part of the two-thirds of participants relying on financial support from family.

In 1981, professor and social worker Dorothy A. Miller coined the phrase “the sandwich generation” to describe a growing number of baby boomers caring for aging parents as well as young children. Our Wave 3 APLUS findings show that today, an unstable economy and unrecovered labor market have many young adult children relying on their aging parents for financial support (Taylor et al., 2013). The lengthening transition to adulthood (Hallquist, et al., 2011) and the high percentage of American young adults who rely on family for support (FINRA, 2013) have contributed to a change in perception of what it means to be an adult.

This longer period of dependence raises important questions not only about those parents' ability to retire “on time,” but about their physical and mental health as well, as they continue to juggle their financial responsibilities alongside the financial needs of their grown children. Although those questions are beyond the scope of APLUS, this emerging dilemma foreshadowed by our findings and by the more than 23 million American workers earning less than \$22,000 annually (International Labour Organisation, 2013) presents an important area for future study.

We also see APLUS participants reporting that traditional goals of adulthood — including marriage, having children and owning a home — are not important to them. Will these opinions change as they gain more financial stability? Or will continuing challenges solidify ideas that depart from traditional patterns (Hamilton, 2010)? Younger consumers are already embracing practices such as car-sharing and goods redistribution (e.g. Zipcar and Freecycle). With accumulating data on consumption from each wave of APLUS to date, we can soon explore whether non-traditional opinions participants have expressed mark a sea-change in historic social and consumer patterns.

# Implications

Recently, some researchers and policy makers have begun to question the value of investing in financial education. The APLUS study, however, consistently demonstrates that financial education plays a key role in differentiating young adults who thrive after college from those who struggle, laying a foundation for financial self-awareness and personal agency associated with distinct behavior patterns.

Those patterns, in turn, distinguish the relative success young adults experience as they transition out of college and into careers and greater independence. High-achieving participants demonstrate the benefits of practicing responsible financial behaviors early and consistently; Rebounding participants demonstrate the power of a change in behavior, and Struggling participants are haunted by consistently poor financial behaviors compared to their Rebounding and High-Functioning peers.

On the basis of our own research, as well as drawing on prior studies showing a positive association between financial knowledge, desirable financial behaviors and financial well-being (Hilgert et al., 2003; Hira, 2012; Huston, 2012), we maintain that financial education is crucial for promoting financial capability and well-being.

We also conclude that financial education is most cost-effective when offered in a formal education setting, especially among college students. Financial awareness is both a relevant and timely topic as they assume greater personal responsibility for their careers and their adult lives. While there are many financial resources available after college, many adults will seek out the information only after they encounter financial problems, a more costly and less efficient approach.

## Implications for Young Adults

We began this research to understand you: young adults coming of age in a complex and changing world. With unprecedented 24/7 access to resources and information, it is up to you to decide what information to access and how to use it. We encourage you to explore the many resources available to you as you make future financial decisions, and we hope that this glimpse into the lives of a group of twenty-somethings, the choices they made, and the impacts of those choices, contribute to your long-term well-being and success.

## Implications for Parents

Parents, you are still the main source of financial advice for adult children, but the complexity of financial services and products available today can be daunting. Even if you are comfortable advising your children about finances, encourage them to seek advice and information from multiple sources, including personal classes and seminars, online tools, financial professionals and counselors. Encourage them to evaluate options, and proceed cautiously.

## Implications for College Administrators

Unlike other subjects appropriate for elective courses, financial literacy is a prerequisite to success. College is one of the biggest investments young people and their families make, and students need to know how to make the most of that investment. For students who choose to finance part or all of their education, provide education and coaching to make sure they understand their student loan obligations – and to create an awareness of the link between career choices and ability to repay students loans. For all students, it's important to assess their financial literacy during the transition to college or young adulthood, with recommendations for classes, counseling, or alternative education and support.

## Implications for Educators & Other Practitioners

Financial education, both at home and in school, is a catalyst for financial awareness. But putting financial knowledge into practice is essential to helping young people understand the relevance of financial knowledge in our day-to-day lives. Effective education moves beyond explicit, direct instruction about financial topics. To promote financial capability, students need opportunities to act on financial knowledge by setting relevant personal financial goals and then using high-quality, age-appropriate financial tools and products to achieve their goals. At the same time, it is important to talk with students often and in ways that instill the basic understanding that life-long financial well-being comes from using one's financial resources well, rather than making a lot of money.

## Implications for Researchers

In response to the UK putting financial education into the national curriculum in 2013, professor Anna Lusardi, Denit Trust Distinguished Scholar in Economics and Accountancy at the George Washington University School of Business, remarked that, "Financial literacy in schools makes common sense" (Lusardi, 2013). Indeed, financial literacy is an essential 21st-century skill. In addition to assessing the impact of financial education, it is time to focus our attention on the design and implementation of effective programs and innovative approaches for promoting financial capability.

## Implications for Financial Services Providers

Although long-term financial well-being rests on the shoulders of the individual, financial services providers have a stake in promoting better financial understanding and decision-making among young consumers. It begins with products that are more easily understood: simpler language with both benefits and risks clearly spelled out. It includes a consumer-focused approach that encourages exploration of alternative products and opportunities to meet individual financial and personal goals. In the end, we believe that the financial decisions of a well-informed consumer ultimately benefit the economy.

# Future Directions

The social and economic context for transitioning to adulthood after 2008 — the period of data gathering in the APLUS study — has been one of change and uncertainty. In our research, we see evidence of young adults responding to changing conditions, altering their day-to-day interactions within families, at work and in their communities. As we continue the APLUS project, we will look at the long-term impact of adapting to severe economic uncertainty during the transition to adulthood guided by a number of research questions.

Partly, these will be continuations of inquiries already underway. For example, will traditional employment patterns give way to more alternative career paths? Will reduced opportunity in the corporate job market drive more entrepreneurial ventures? Will lifestyle factors, such as more flexible hours or a desire to work in a helping profession, play a bigger role in the opportunities job seekers pursue? And what additional pressures will the changing employment landscape create for existing government programs and policies, such as those for unemployment benefits and Social Security?

Similarly, we will look more extensively at changing values revealed in Wave 3 to see if they become ingrained in the everyday lives of these

young adults. Already we observe increasing rates of cohabitation and decreased marriage rates; underemployment for many young adults; grown children relying on parents for financial support; and fewer young adults seeking to own their own home. Will these departures from traditional norms persist to forge new social and economic directions?

Finally, we will embark on new inquiries using data steadily collected in our research to date but not yet reported on in published analyses. For example, will trends in consumption preferences — e.g., foregoing ownership in favor of temporary possession and usage of shared or rented products — continue to be attractive to young adults? Will new tastes and ideals accelerate demand for these services? And if young adults' tastes and values are changing, will their financial behaviors change as well?

Launched as a study on the developing financial behaviors of college students, the APLUS project is becoming a chronicle of the life journey of a new generation. Stay with us as we follow these young adults through career launch and on into middle age.



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Anybody who has ever put a survey into the field knows the relief associated with a good response rate. The challenge multiplies for a project that aims to re-survey respondents periodically over time. From the moment the APLUS project was launched in 2007, the research team knew that their biggest challenge would be to build sufficient trust and loyalty among their student respondents while they were at the UA to translate into continued response once they left campus. So, some 6 years on from the project's launch, it is gratifying that more than 1,000 respondents continue to share with us their beliefs, goals, and challenges as they cope with establishing careers, relationships and life on their own.

This report tells a story of a cohort of young adults still relying to some degree on financial support from parents and family, even among those who have found full-time employment. Particularly intriguing is evidence that many of the traditional milestones of young adult development (e.g., marriage, having children, homeownership) are not particularly important for respondents, at least not yet. Keep in mind that the Great Recession triggered by the global financial meltdown in 2008 continues to cast a long shadow on economic opportunity for young adults. Whether their attitudes reflect economic necessity or a sea-change in values remains to be seen.

All of us here at the Take Charge America Institute are deeply appreciative of our principle funders, the National Endowment for Financial Education and the Citi Foundation, for their continued support of this project. Please enjoy the latest returns from their investment.

Michael Staten

Take Charge America Endowed Professor, and Director  
Take Charge America Institute for Consumer Financial Education and Research



NEFE is an independent, nonprofit foundation committed to educating Americans on a broad range of financial topics and inspiring empowered financial decision making for individuals and families through every stage of life. For more than 30 years, NEFE has been providing funding, logistical support, and personal finance expertise to develop a variety of materials and programs, including the award-winning High School Financial Planning Program<sup>®</sup> (HSFPP), the CashCourse<sup>®</sup> college program, and the consumer-oriented Smart About Money public awareness campaign. NEFE funds research and awards research-based development grants that advance innovative thinking and contribute to our understanding of financial behavior. NEFE also serves segments of the American public in need of specialized financial information through partnerships with numerous organizations, including the National Urban League, the YWCA, the American Red Cross, and Habitat for Humanity<sup>®</sup>. To learn more about NEFE, visit [www.nefe.org](http://www.nefe.org) or call 303-741-6333.

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## Take Charge America Institute

For Consumer Financial Education and Research

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