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# APPROACHING 30

ADULT FINANCIAL CAPABILITY,  
STABILITY AND WELL-BEING



APLUS - WAVE 4





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DEAR COLLEAGUES,

A lot has changed in the world since we launched APLUS more than 8 years ago. To the young adults who have stayed with us, thank you for sharing your time, your responses and your experiences. Without you, there indeed would be no APLUS, and you've helped us to understand how those changes have shaped the adults you have become. It's been suggested that participating in research, especially longitudinal research, changes behavior. What we know, is that engaging you in this study has changed our research, shaping and reshaping the questions we explore with each successive wave of inquiry.

Longitudinal research requires a significant investment. We acknowledge the generous support of the National Endowment for Financial Education, providing both funding and time to make this project successful. You have been with us since its inception, and we are grateful for your ongoing support and your commitment to the financial education of all Americans. We thank Great Lakes Higher Education Corporation & Affiliates for your interest in the APLUS study, and for generous support for Wave 4. A special thank you to Take Charge America Institute (TCAI) for your foresight in launching the APLUS project and in continuing to provide the infrastructural support needed to keep it going all these years.

A successful project requires the commitment of dedicated people whose "behind the scenes" work is essential yet often unnoticed. We are fortunate to have such a team who tirelessly worked with us every step of the way. We begin by thanking Robert Lanza, Technology and Support, whose creativity and determination overcame so many obstacles, real and imagined, to ensure that APLUS Wave 4 was a success. We are indebted to Michael Staten Ph.D., TCAI Director, Melissa Curran Ph.D., TCAI Research Director, Tiffany Kiramidjian, TCAI project manager, and Paige Jacobson, Finance and Administration Manager, for their willingness to address the many challenges of coordinating this three-university research collaboration. We thank our graduate students and research associates who analyzed and organized the data: Jessie Rudi Ph.D., Sunyoung Ahn Ph.D., Sarah Burcher and Sun Kyung Lee. We also recognize the creativity and clarity of Eric Van Meter and LeeAna Benson in the editing and design of this report. We appreciate all of you.

Finally, we acknowledge our Millennial children, Evan Runyon and Jina Choi, who inspired and encouraged this research — and who helped us interpret what we learned. We are proud of you!

SINCERELY,

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# EXECUTIVE SUMMARY

## RESILIENCE & STABILITY APPROACHING 30

### KEY FINDINGS ON ADULTHOOD, FINANCIAL CAPABILITY, GOALS, WELL-BEING AND STUDENT LOANS

Since 2008, the APLUS project has surveyed and followed a unique group of young adults, members of the Millennial generation who were then freshman in college. In this report, we provide a glimpse into the continuing progress of the participants, looking at several domains of adult achievement: employment, financial capability, life goals and well-being.

Perhaps the most striking finding is that, despite challenging economic and social conditions, most of the young adults in the study are doing well:

- They're well-educated and employed, living independently and forming relationships;
- They're financially capable, confident and able to manage their finances;
- They're making prudent financial choices in achieving life goals, often working more hours to make ends meet and saving before purchasing.

In short, most are doing well: psychologically, financially and in life. At the same time, some are doing better than others, and some are struggling. A key goal of our research is to explore and better understand the factors that signal differences between those groups.

As in previous waves of the study, we conclude the report with a conceptual model grounded in our findings and intended to offer insights for practice and inspire future

research. For Wave 4, the model offers a deeper understanding of factors that affect success at student loan repayment, including but expanding beyond financial resources.

### EDUCATION & EMPLOYMENT

We found **few differences between sociodemographic groups** (e.g., women vs. men, higher- vs. lower-SES participants) in terms of achievements, suggesting that today's educated young adults can reach adult milestones regardless of socioeconomic and demographic background.

Notably, while there were no differences in employment status, **men were earning significantly more than women:** Only 27% of women but 45% of men were earning over \$60,000 annually.

### FINANCIAL CAPABILITY: DIFFERENCES IN KNOWLEDGE, AGENCY & BEHAVIOR

At Wave 4, **men scored higher than women**, both in what they knew and their confidence in what they knew, and reported **better financial behaviors** in some areas.

**Participants from lower-SES families felt less control over their finances**, less confident about their finances and reported less healthy financial coping behaviors **despite having been on par with their peers in past data.**

Many of those participants also fall into our

“first-gen” category — those whose parents didn’t attend college. Interestingly, while they outperformed their peers on objective knowledge, they also felt less confident and capable.

We saw relatively small/few differences by race, but observed that White participants scored better than Hispanics on some measures. Also, **Asian participants “caught up” in some measures and were sometimes outperforming peers.**

## LIFE GOALS & WELL-BEING

**Well-being was relatively stable and high** among the APLUS participants, with a **striking increase in financial well-being** (up 4% over Wave 3) consistent across sociodemographic groups.

Perhaps not surprisingly, we found that **well-being was significantly correlated with financial capability**, particularly financial self-confidence. Employment status also emerged as strongly correlated with well-being: **Unemployed participants reported the lowest levels of well-being**, while their full-time and self-employed peers scored highest.

**Fewer young adults were receiving financial support from parents and family** at Wave 4. However, those who were, including those from higher-SES backgrounds, reported lower well-being compared to their peers.

**Finances were a bigger threat to goals for historically more vulnerable populations:** non-White participants, those from lower-SES families and those whose parents hadn’t attended college.

## STUDENT LOANS

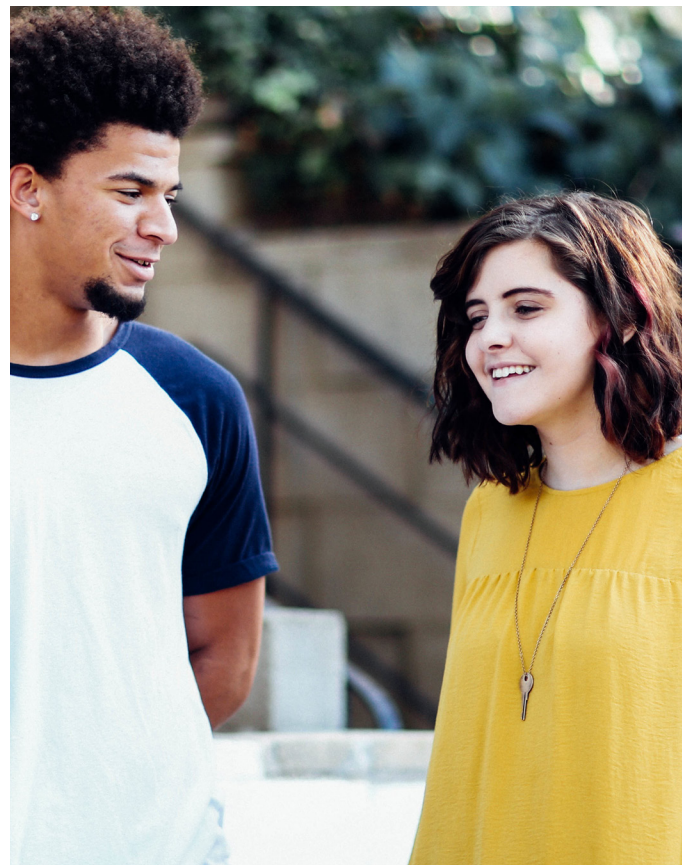
**Nearly one-third of participants had student loans to repay at Wave 4** (average balance of \$26,000). Repaying them was their highest financial priority.

**Ethnic minorities, those from lower-SES families and first-gen were more likely to be carrying student loan debt** and were more negatively affected by it (e.g., more stressed, more pessimistic about paying it off).

Overall, **participants’ default rate was very low (less than 1%)**. However, 14% reported struggling with their debt, including 8% who had skipped or made late payments and 5% in forbearance.

While participants from lower-SES families noted financial strain as a key barrier, **participants cited issues related to navigating repayment as more challenging than lack of finances.**

Finally, in a measure new to Wave 4, we found that **participants with difficulty repaying student loans were less effective problem-solvers** in general. Integrating that data with other analyses, we show that **financial resources are an important but not exclusive factor in successful repayment.**





INTRODUCTION  
THE APLUS PROJECT  
A STORY OF YOUNG ADULT MATURITY & GROWTH

Every generation shapes and is shaped by the economic and social conditions of its time. For some, success becomes defined not by adversity faced but by an ability to adapt and overcome, rising to the challenge of life's demands against the odds.

Americans who came of age during the Great Depression, for example, grew up to become “the greatest generation” (Brokaw, 1998), rebuilding the U.S. from its shaken foundations. Here we chronicle the journeys to adulthood by a cohort of young adults who came of age during a historic period of economic and social changes rivaling the turmoil of that earlier era:

- The 9/11 attacks on the World Trade Center marked their passage to adolescence, ushering in an age still dominated by fear and vigilance;
- The 2008 global financial crisis defined their college years, during which stock prices and home values plummeted to create widespread financial instability and uncertainty;
- They then graduated from college when unemployment rates for 20 to 24-year-olds hovered at 15%, leading many to question the value of investing in higher education.

APLUS is a longitudinal study that since 2008 has captured the changing financial knowledge, practices and life choices of

these Millennials, now in their late 20s, drawing data from the same group of participants every two to three years.

For them, as for all young adults, these years are a time of choices that constrain or expand not only present endeavors but also future possibilities. Like generations before them, they must develop the skills and knowledge to make decisions soundly on their own (Larson, 2002).

While much research examines how young adults develop social, psychological and academic competencies, the Arizona Pathways to Life Success for University Students (APLUS) project focuses on the financial knowledge and skills that young adults need to successfully navigate life choices.

It provides unique knowledge for empowering young adults nationwide to make positive life choices during a time of economic and social change.

Just as importantly, for policymakers and educators, both formal and informal, it offers insights into how they can help young adults find their paths to better financial, physical and emotional well-being.

## BACKGROUND

# APLUS THEN AND NOW

## PROJECT HISTORY, METHODOLOGY AND CURRENT PARTICIPANTS

Wave 1 of APLUS data, collected early in 2008 during the participants' first year of college, demonstrated the important role that parents play in a smooth transition to college.

The data collected in spring 2009 — an unplanned-for opportunity, since designated "Wave 1.5" — documented the immediate impact of the 2008 financial crisis on participants (then sophomores) with respect to their financial attitudes and behaviors.

Wave 2, completed in the fall of 2010 at the start of participants' fourth year of college, showed how financial knowledge, skills and behaviors change over time and what factors contributed to those changes.

Wave 3, completed in summer 2013, demonstrated that financial education lays a solid foundation for greater financial self-awareness and personal agency as well as more responsible financial behaviors, differentiating young adults who thrived after college from those who struggled.

### TERMS USED IN THIS REPORT

**FTE:** Full-time employment or employee

**PTE:** Part-time employment or employee

**SES:** Socioeconomic status  
*Used in reference to APLUS participants, refers to family background, not current status. For example, "lower-SES" means a participant who, at Wave 1 in 2008, gave data indicating lower socioeconomic status for his/her family.*

**First-gen:** First-generation status  
*Used in reference to APLUS participants whose mother and father have no college degree.*

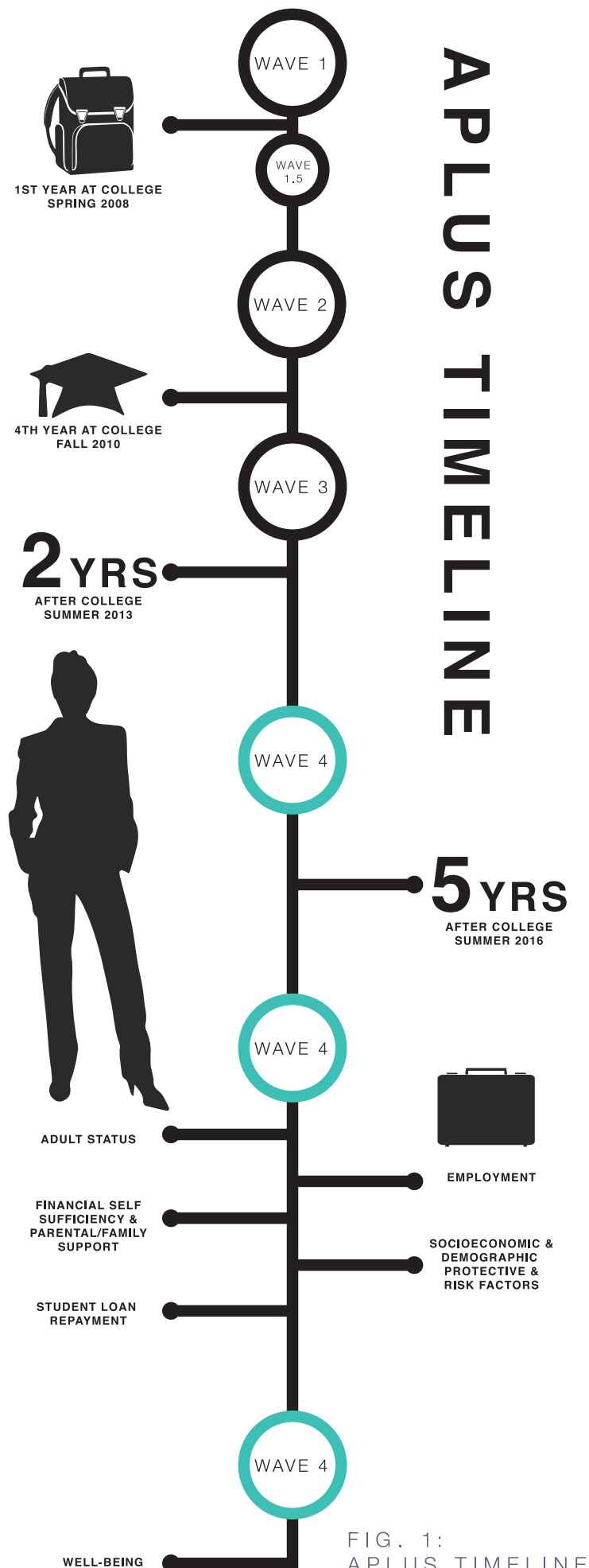


FIG. 1:  
APLUS TIMELINE

Wave 4 data was obtained in summer 2016. Our overarching goal for this study was to examine how financial capability over time affected participants' journeys towards adult status and what factors influenced their well-being and life outcomes.

Note that our participants are diverse in their ethnic and socioeconomic backgrounds but share important common ground. First, all began the study as freshmen in college and range in age today from 26 to 29, placing them squarely in the middle of the Millennial generation. Second, nearly all went on to graduate: Only 3% of Wave 4 participants had no college degree.

Reports on findings from each wave of APLUS are available online:  
<http://aplus.arizona.edu/resources.html>.

## **WAVE 4 OBJECTIVES & METHODOLOGY**

Millennials (born 1981 to 1997) represent the largest living generation (Pew Research, 2016). APLUS Wave 4 provides a glimpse into the lives of a well-educated select age group within that generation: young adults 26 to 29 years old. As they approach their 30s, we examined how their finances, relationships and achievements intersect to explore the following research questions:

- What drives life choices for Millennials?
- How do their life choices and finances relate?
- How are Millennials managing student loan repayments?
- How are financial capabilities that develop over time affecting the well-being and life outcomes of young adults?

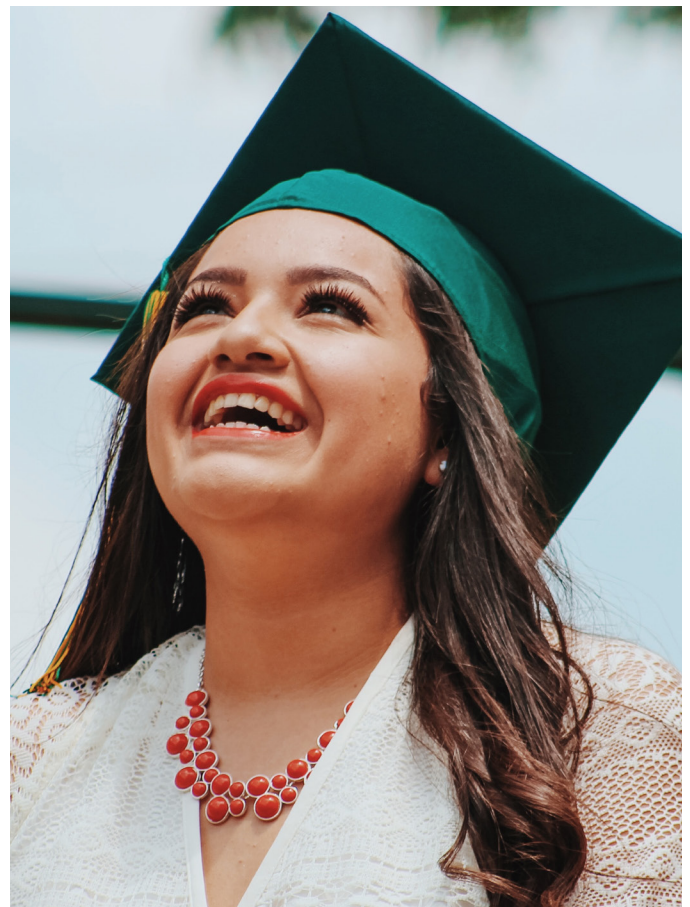
## **SAMPLE SIZE & CHARACTERISTICS**

In spring/summer 2016, we invited the

original Wave 1 APLUS participants (N=2098) via email to complete an online survey. More than 900 participants (43%) responded, ultimately creating a sample of 855 young adults who completed the Wave 4 survey.

The sociodemographic variables that characterized our Wave 4 participants matched that of the full Wave 1 sample:

- Roughly two-thirds were women, one-third were men;
- 67% were White, 15% Hispanic, 9% Asian, 3% Black, 2% Native American, 3% left the question unanswered;
- Nearly 1 in 4 (24%) said their parents had made \$50,000 - \$150,000 annually during their first year of college (middle-SES); 32% said their parents made less and 44% said their parents made more;
- 16% of respondents had been first-gen.







## FINDINGS

# PROGRESS TOWARD ADULTHOOD

## EDUCATION, EMPLOYMENT, INCOME, RESIDENTIAL STATUS, RELATIONSHIPS, PARENTING AND SELF-ASSESSED ADULT STATUS

Development is a lifelong process marked by different primary “tasks” at different stages in life (Havighurst, 1972), and Arnett (2000) argues that the transition to adulthood from ages 18 to 25 is especially distinct.

Looking at a number of milestones towards adulthood, we found that most APLUS participants had achieved adult status, evidenced by objective indicators aligned with their own subjective assessment.

### OBJECTIVE INDICATORS OF ADULTHOOD

In the early 1970s, social historians suggested that adult status in contemporary societies was marked by five role transitions (Billari & Liefbroer, 2010; Mouw, 2005; Settersten, 2012):

- Completing education;
- Finding work;
- Leaving the parental home;
- Forming committed relationships;
- Becoming a parent.

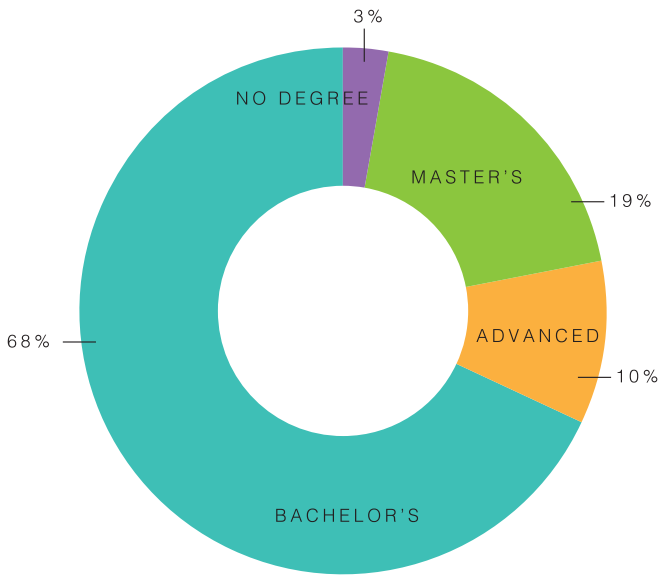
Although the order of those milestones varies, passing most of them is now commonly considered the standard for having reached adulthood. Our findings show that most of the APLUS participants have passed the first four.

### Educational Achievement

By many accounts, Millennials are a highly educated group. Compared to their age peers of 50 years ago, today’s young adults are four times more likely to have a bachelor’s degree (Pew Research Center, 2015). Given that all our original participants were in college, it’s not surprising that among our Wave 4 sample:

- Over two-thirds have completed at least a bachelor’s degree;
- 19% have earned a master’s degree;
- 10% have earned an advanced professional degree (e.g., MD, Ph.D., JD) or are on track to complete one within the next year.
- Only 3% haven’t earned a college degree and aren’t attending college.

FIG. 2:  
EDUCATIONAL ACHIEVEMENT  
AT WAVE 4



Additionally we found that:

- Asian participants were more likely to have an advanced/professional degree;
- There was no difference in bachelor's degree attainment by gender, SES, race/ethnicity, or first-gen participants.

## Employment & Income

Our finding that employment had increased among APLUS participants across sociodemographic groups reflects the steady decline in unemployment since 2010 as documented by the Bureau of Labor Statistics (BLS, 2016):

- Over three-fourths of the Wave 4 sample reported FTE, up 24% from Wave 3;
- Only 2.8% were unemployed and looking for work — a rate on par with that of college graduates nationally and well below the national average of 4.3%.

We also looked at average income and found that participants' income had improved: 62% were now earning over \$40,000 annually, compared to 25% at Wave 3. With inflation steady at 1%, we can attribute the change to an increase in income.

And while we found no significant income differences based on SES, race/ethnicity or

FIG. 3:  
CHANGES IN EMPLOYMENT STATUS: WAVE 3 TO WAVE 4

THE PAST 3 YEARS SAW EMPLOYMENT GAINS ACROSS THE BOARD FOR APLUS PARTICIPANTS

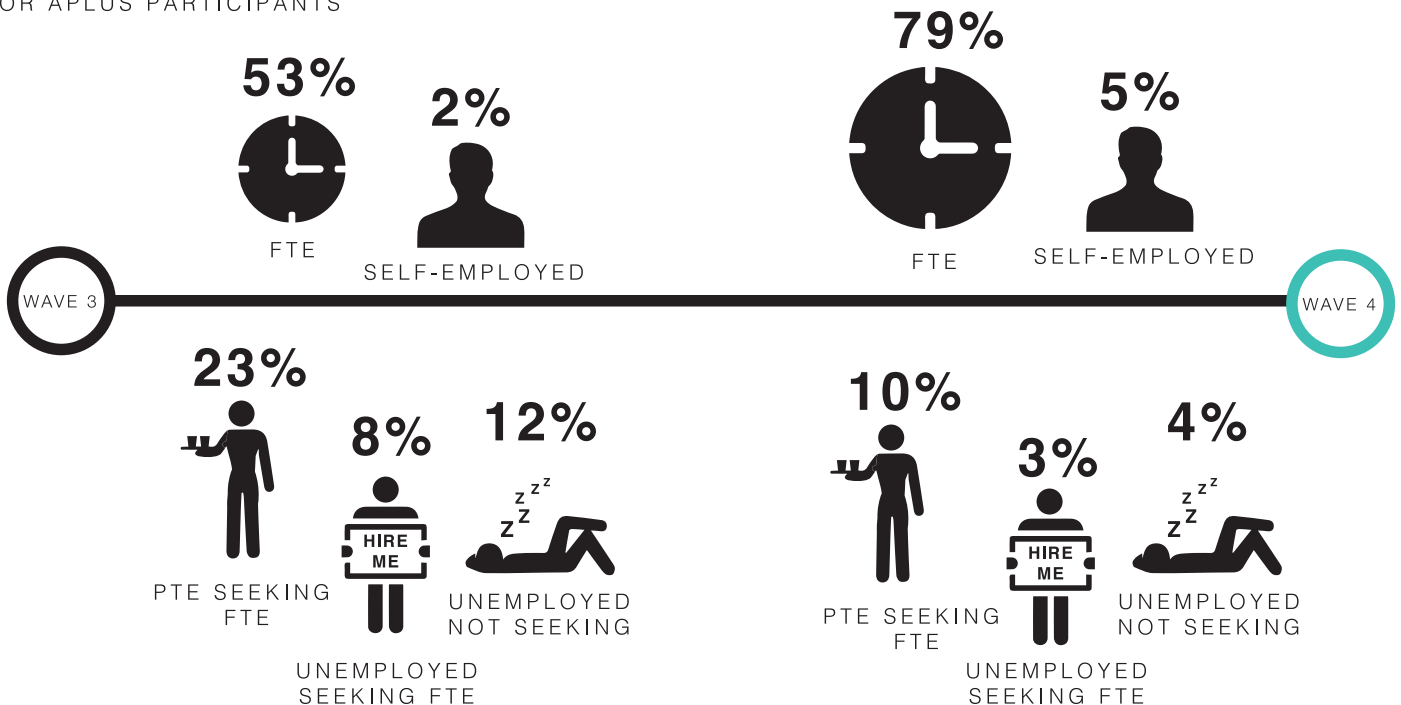
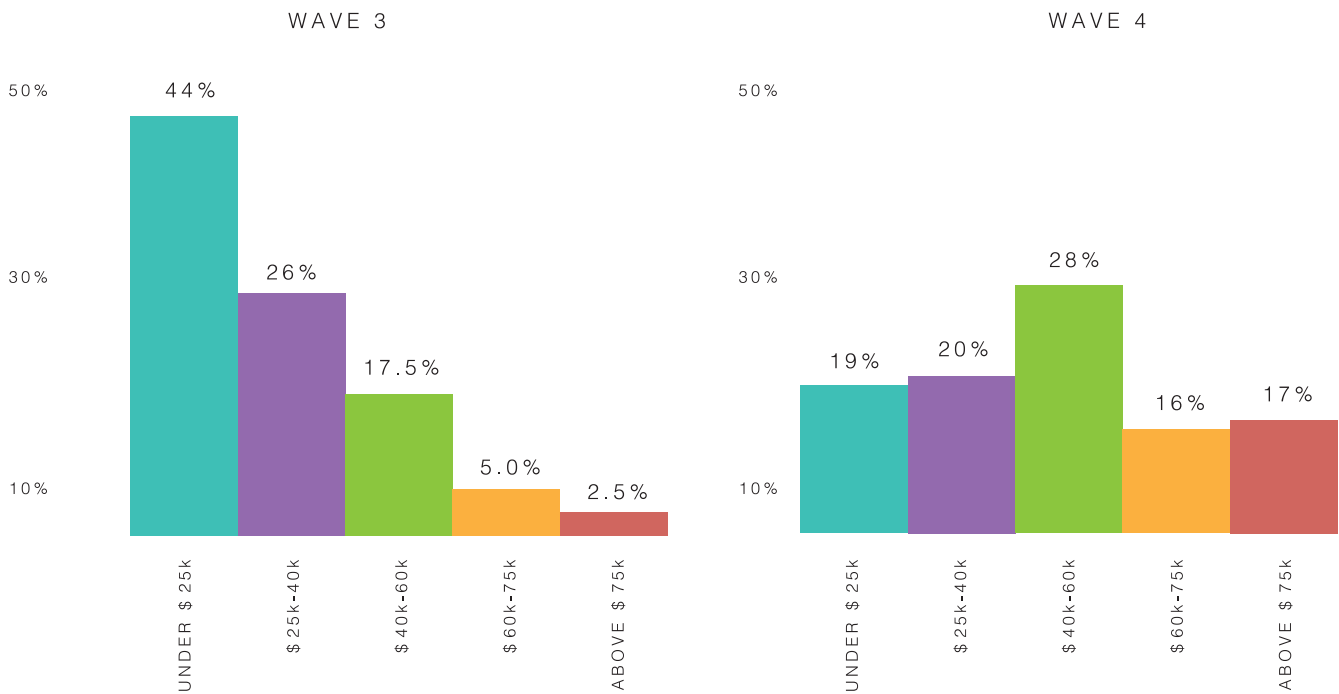


FIG. 4:  
CHANGES IN AVERAGE ANNUAL INCOME FROM WAVE 3 TO WAVE 4



first-gen, we did find that our study’s men were earning significantly more than women.

For example, only 27% of women but 45% of men were earning over \$60,000 annually, findings on par with national figures showing that women earn 17–20% less than men (BLS, 2015).

**Residential Status**

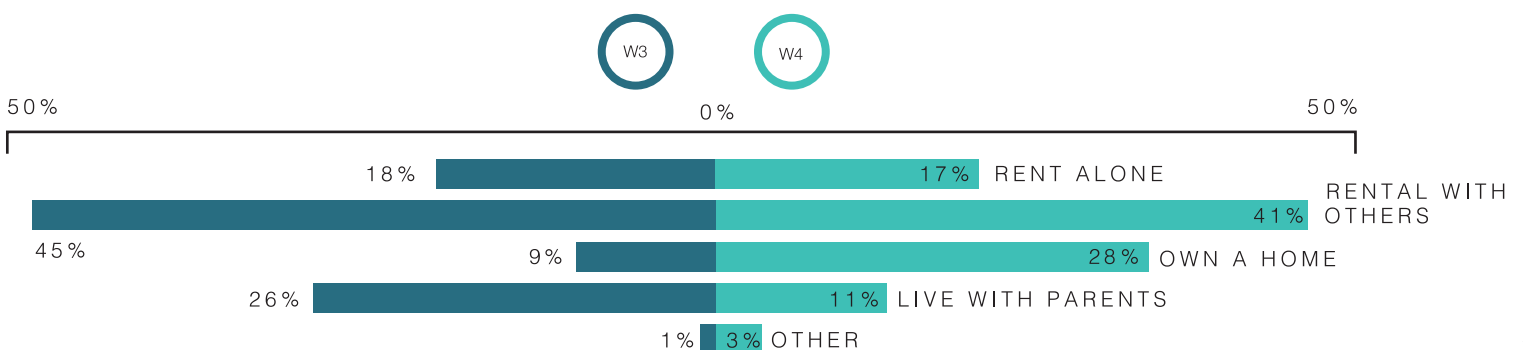
In 2014, one study found that more young adults reported living with their parents than at any other time in the past 130 years (Fry, 2016). Our Wave 3 data, collected in 2013, told a similar story, showing 26% of APLUS participants were then living with their parents rent-free.

Wave 4 data shows significant shifts in living arrangements, understandable given the increased income in the APLUS sample between Wave 3 and Wave 4:

- 86% lived apart from their parents, up from 72% in Wave 3;
- Only 11% lived with their parents rent-free — less than half as many as before;
- 28% owned a home, up from 9% in Wave 3.

Notably, while other national surveys have found that Black and Latino young adults (36%) were more likely than White young adults (30%) to live with their parents (Fry, 2016), we found no differences in residential status by race/ethnicity, SES, gender or first-gen.

FIG. 5:  
CHANGES IN RESIDENTIAL STATUS



## FINANCES AND RELATIONSHIPS

Although 88% of Millennials who are married or living with a partner report that financial decisions are a source of tension in their relationship, only 42% discuss their financial goals as a couple (Eiger & Schiavone, 2016). In stark contrast we found that 97% of APLUS participants said they talked about money at some stage of relationship development!

Perhaps this percentage is higher among college graduates than non-college graduates. It may also be that our participants are more likely to talk about money in their relationships in part because of their engagement in this study.

Although there were no differences by gender, SES or first-gen, we did observe that Asian participants reported more and earlier dialogue about finances compared to other groups. Specifically, we found that Asian participants reported talking about finances with their partners sooner than did Hispanic participants:

- 11% of Asian Americans talked about finances before dating, compared to just 6% in the sample overall;
- Almost one-half (47%) of Asian participants talked about finances after one or a few dates, compared to less than 30% in the sample overall.

## Relationship Formation

Compared to previous generations, fewer adults ages 18-29 are marrying. One study found that only 29% were married but 20% who were single were living with a committed partner (Saad, 2015).

Whether Millennials are postponing or forgoing marriage remains an open question. However, consistent with national findings, 71% of APLUS participants were unmarried at the time of Wave 4 data collection, yet more than half were in committed relationships, a trend consistent across all sociodemographic factors in our study.

## Parenting

As a last objective measure of the transition to adulthood, we looked at how many Wave 4 APLUS participants had children. While less than 40% of Millennials nationwide have children, those who do were parents to roughly 3.2 million of the 4 million U.S. births in 2013 (Fromm, 2013).

Far fewer APLUS participants — only 10% — were parents by that year. The small numbers are perhaps not surprising given that the average age at first birth for U.S. women is 26 (U.S. DHHS, 2016) and APLUS participants were 26-29 years old at this stage of the study. Also, studies show that young adults with a college degree are more likely to postpone having children (Fleming, 2016).

W4  
FIG. 6:  
RELATIONSHIP  
STATUS AT WAVE 4

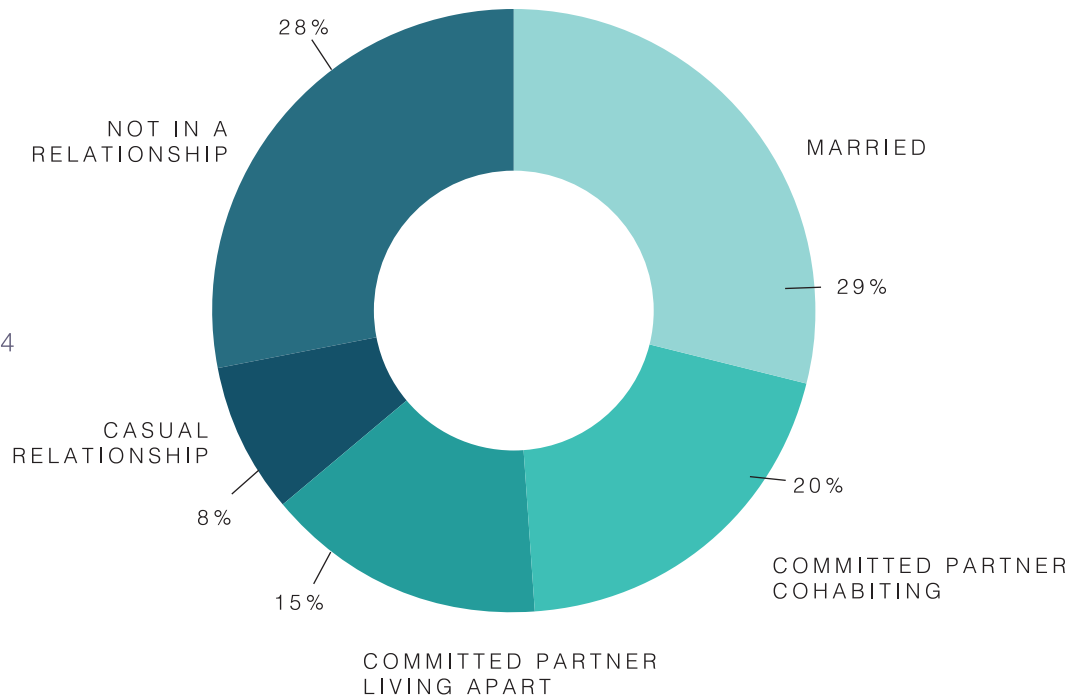
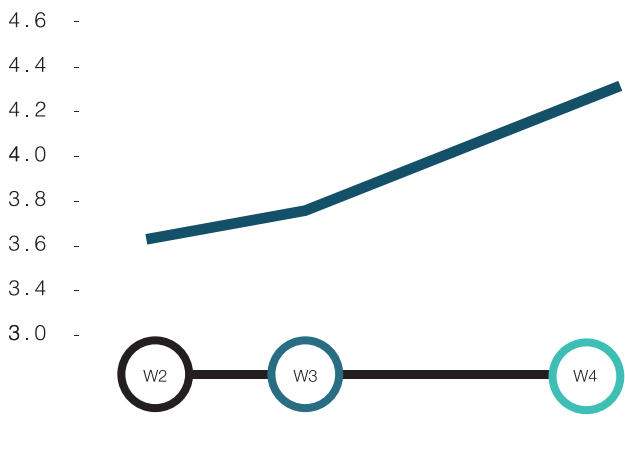


FIG. 7:  
SELF-ASSESSED ADULT STATUS  
OVER TIME



## SUBJECTIVE MEASURE OF ADULTHOOD

Social dynamics around the five indicators just discussed are fluid and have changed considerably since the 1970s. Young adults may or may not seek all five milestones; many seek them in different sequences.

It's also true that the timespan associated with transitioning to adult independence has grown over time. For all these reasons, in addition to objective measures of adulthood, it's important to look at how young adults see themselves (Arnett, 2000).

To that end, we asked Wave 4 participants (most now five years out of college) to rate their progress toward adulthood and compared it to ratings at Wave 2 (leaving college) and Wave 3 (two years out of college).

As seen in Figure 7, participants leaving college rated their progress toward adulthood as just above average — an assessment that rose only modestly in the next two years. However, by the current Wave 4 data, participants rated themselves as nearing full-adult status (average 4.37 on a 1-5 scale vs. 3.60 when leaving college).

It is worth noting that we found only one difference by sociodemographic factors:

White participants reported higher adult status compared to Asian participants.

That finding may reflect a difference in cultural norms, specifically that Asian cultures tend to be more collectivist: group-oriented with family identity and connections at the heart of personal life.

Asian families also place great value on higher education and often expect to support their children through their earning advanced degrees. That orientation is consistent with another finding in Wave 4: Asian participants were more likely to be working on an advanced/professional degree and more likely to be living at home — two factors that may lower their self-assessed adulthood status.



## FINDINGS

# FINANCIAL KNOWLEDGE

### CHANGES IN OBJECTIVE AND SELF-ASSESSED KNOWLEDGE

Sixty-nine percent of Millennials say they have enough money to buy what they need, but only 28% say they have enough to do what they want (Adkins & Rigoni, 2016).

That latter statistic speaks to the concept of financial capability, which is a measure for the knowledge, skills and behaviors that together create not only a feeling of control over one's finances but also the ability to make desirable life choices (Consumer Financial Protection Bureau, 2015).

Greater financial capability can buffer individuals and families from the negative effects of financial stress (Friedline & West, 2015). This benefit may be especially important to young adults, for whom establishing independent households and

new careers creates financial instability (Arnett, 2000), which can add to financial stress inherent in our changing national and global economies (American Psychological Association, 2015).


Over the eight years of APLUS to date, we've examined the financial capability of participants to understand how it develops as well as how it relates to adult well-being.

We conceptualize financial capability as the financial knowledge, financial agency and financial behaviors needed to manage adult responsibilities and ultimately achieve financial well-being (Serido et al., 2013).

### MEASURES OF FINANCIAL KNOWLEDGE

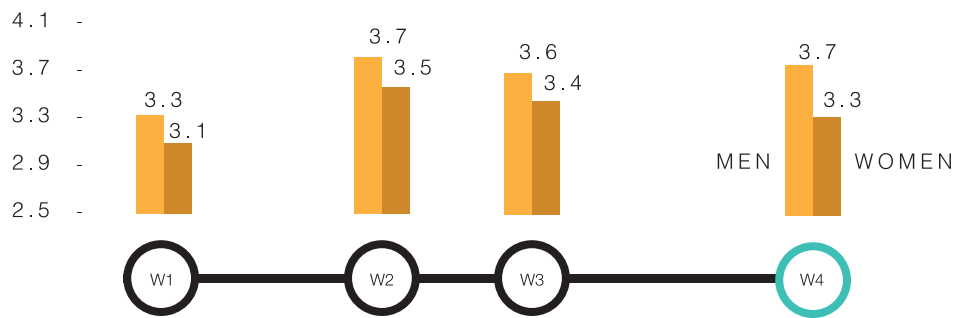
For Wave 4, as in earlier waves of data collection, we assessed financial

TABLE 1:  
FINANCIAL KNOWLEDGE  
OVER TIME



	W1	W2	W3	W4
OBJECTIVE KNOWLEDGE QUIZ GRADE	66.5%	70.9%	75.2%	60.5%
SELF-ASSESSED KNOWLEDGE ON A 5-POINT SCALE	3.15	3.58	3.5	3.45

FIG. 8:  
SELF-ASSESSED KNOWLEDGE BY GENDER OVER TIME



knowledge from two perspectives:

- Objective knowledge, here being a knowledge of basic financial facts as measured by 15 true/false questions, e.g., “The finance charge on your credit card statement is what you pay in order to use credit”;
- Subjective knowledge, which here refers to self-assessment of one’s financial knowledge and understanding, measured on a scale from 1 (very low) to 5 (very high).

Tracking both measures from Wave 1 to Wave 4, we find a shared, interesting pattern in the trajectories of knowledge across all sociodemographic groups (see Table 1 on pg. 14);

- Objective knowledge increased until a steep decline (dropping below baseline) in the current Wave 4 data;

Subjective knowledge also dipped, though less dramatically, first showing in Wave 3 data but remaining significantly above the Wave 1 baseline.

Although striking, the drop in objective knowledge may reflect a normal, age-related decline in test-taking skills that begins in the 20s and 30s of healthy, educated adults (Salthouse, 2009).

## OBJECTIVE KNOWLEDGE DIFFERENCES ACROSS GROUPS

In measuring objective knowledge over time, our data show two significant differences linked to sociodemographic factors:

- By Wave 4, men scored higher than women on objective knowledge (61.4% vs. 59.4%) though they had been equal in Wave 1;
- Participants who had been first-gen college students scored higher on objective knowledge compared to other participants (62.2% vs. 59.7%).

## SUBJECTIVE KNOWLEDGE DIFFERENCES ACROSS GROUPS

In measuring subjective (self-assessed) knowledge over time, the data show a number of differences linked to gender and the socioeconomic status of participants’ families of origin.

## DIFFERENCES BY GENDER

- Men consistently rated their knowledge higher than did women;
- The previous rises and falls for men and women diverged at Wave 4, with men’s self-assessed knowledge rising and women’s dropping (see Fig. 8).

## DIFFERENCES BY SES

Although levels of subjective knowledge did not differ significantly between participants from lower-, middle- or higher-SES families, the patterns of change for these groups over time did vary (see Fig. 9):

- For participants from lower-SES families, subjective knowledge peaked at Wave 2 then declined significantly;
- For participants from higher-SES families, subjective knowledge also peaked at Wave 2, but the subsequent decline was not statistically significant;
- For participants from middle-SES families, subjective financial knowledge steadily increased after a sharp increase at Wave 2.

While our data don't reveal specifically what drove these patterns observed, we can speculate on potential dynamics:

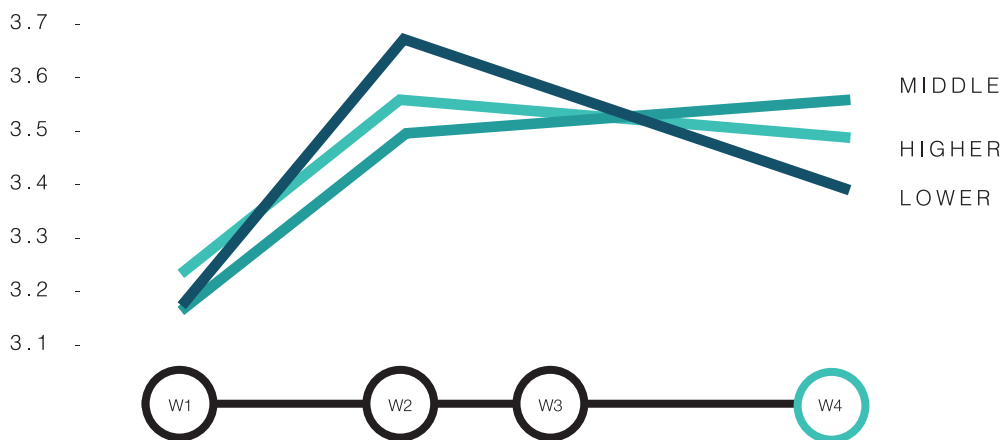
- Participants from middle-SES families may have received more parental advice and "coaching" during college, better preparing them for independence beyond college;
- In contrast, the pattern for participants from higher-SES families may reflect a drop in resources after Wave 2, going

from financial support from their parents during college to much reduced personal resources afterwards;

- The sharper college increase then decline for participants from lower-SES families may reflect that they had less of a financial safety net after leaving college.



FIG. 9:  
SELF-ASSESSED KNOWLEDGE BY SES OVER TIME





## FINDINGS

# PERSONAL FINANCIAL AGENCY

## BELIEFS ABOUT FINANCIAL SELF-CONTROL, PLANNING HORIZON AND EFFICACY

Parents are key in shaping their children’s financial attitudes and behaviors (Shim et al., 2010; Serido & Deenanath, 2015). Ultimately, however, young adults are expected to develop personal agency that regulates thoughts and behaviors outside of family (Bandura, 1989, 2001).

Within APLUS, we define personal financial agency as measures of three beliefs:

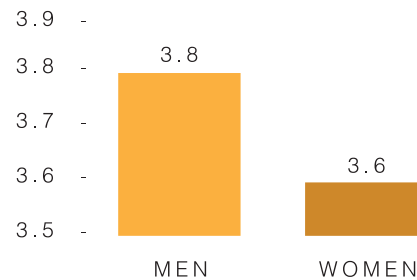
- Perceived behavior control — how challenging one thinks it is for her/him to stick to a financial plan, measured with one question on a scale from 1 (extremely difficult) to 7 (very easy);
- Planning horizon — how far out one thinks she/he needs to plan ahead to see better financial outcomes (longer horizons signaling greater financial agency), measured with one question on a scale from 1 (next few days) to 7 (longer than 10 years);
- Financial self-efficacy — how confident one is that she/he can perform a particular behavior (e.g., pay my bills), measured by three questions on a scale from 1 (strongly disagree) to 5 (strongly agree).

For the Wave 4 sample as a whole, we found that:

- Perceived control had risen compared to Waves 2 and 3 but wasn’t significantly higher than baseline;

- Planning horizon had risen significantly compared to baseline;
- Financial self-efficacy had declined after having increased at Waves 2 and 3.

FIG. 10:  
SELF-ASSESSED EFFICACY  
BY GENDER AT WAVE 4



Additionally, we found a number of differences across all three measures of financial agency associated with sociodemographic factors, summarized in Table 2 on page 21.

### DIFFERENCE BY GENDER

Though ratings dropped in Wave 4 for all groups, men were more confident in their financial efficacy (“self-efficacy”) compared to women at Wave 4 (see Fig. 10), as they had been at each previous wave of our survey (see Fig. 11 on the following page).

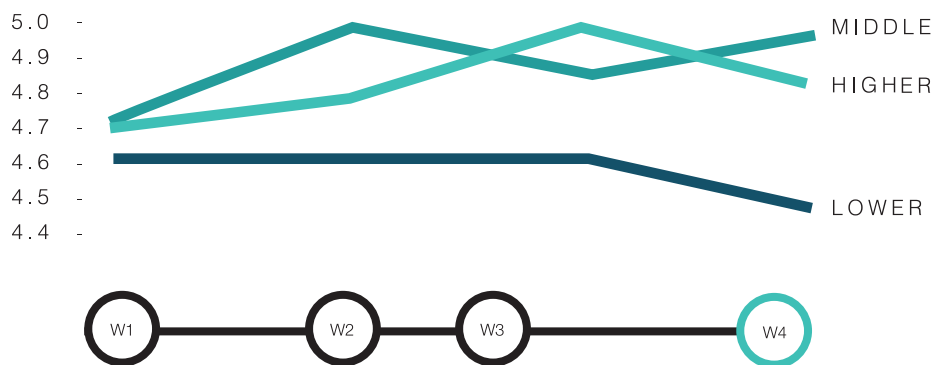
### DIFFERENCES BY SES

- **Perceived control** among middle-SES participants went up at Wave 4 but went down for lower- and higher-SES participants.
- Although **perceived control** increased overall from baseline for middle-SES (and for higher-SES participants to a lesser extent), it declined for lower-SES participants (see Fig. 12 on the following page).

FIG. 11:  
SELF-ASSESSED EFFICACY BY GENDER OVER TIME



FIG. 12:  
PERCEIVED CONTROL BY SES OVER TIME



- At Wave 4, lower-SES participants reported a shorter **planning horizon**, though there had been no significant differences by SES at baseline (see Fig. 13).

- At Wave 4, participants from middle- and higher-SES families reported higher financial self-efficacy compared to participants from lower-SES families (see Fig. 14).

- Financial self-efficacy increased from baseline for middle- and higher-SES participants (up 5% and 4% respectively), but fell for lower-SES participants (down 5%); note that

while we did observe differences between groups in earlier waves, those differences only became statistically significant at Wave 4 (see Fig. 15).

Overall, while we observed mixed results by SES across different dimensions, a through-line of the data showed that lower-SES participants were often doing worse in financial agency than they had been at baseline and were underperforming their peers in every measure.

FIG. 13:  
PLANNING HORIZON BY SES OVER TIME



FIG. 14:  
SELF-ASSESSED EFFICACY BY SES AT WAVE 4

W4



FIG. 15:  
SELF-ASSESSED EFFICACY BY SES OVER TIME

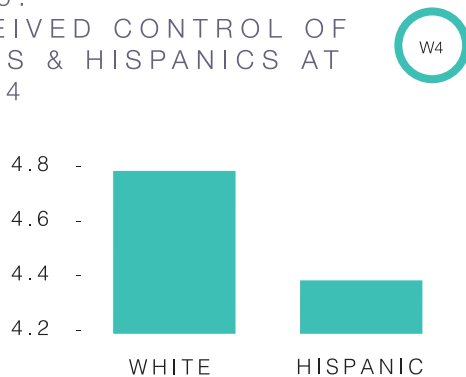


## DIFFERENCES BY RACE/ETHNICITY

As with SES, we observed a handful of differences in financial agency linked to race or ethnicity:

- White participants felt they were more likely to stick to their financial plans (perceived control) compared to Hispanic participants (see Fig. 16);

FIG. 16:  
PERCEIVED CONTROL OF  
WHITES & HISPANICS AT  
WAVE 4



- By Wave 4, Asian participants had closed the financial self-efficacy gap they'd had with White participants at baseline (previously 3.24 to 3.66 ) (see Fig. 17);
- In contrast, a new gap emerged, with Hispanic participants reporting lower financial self-efficacy compared to White participants (3.45 vs. 3.72) where there had been no significant difference before (see Fig. 17).

In summary, looking at financial agency as it relates to race and ethnicity, we saw differences predominantly between White and Hispanic participants. Since these participants make up the largest groups of the study, data suggest that White participants had developed higher financial self-agency compared to other race/ethnic groups — a finding consistent with other research (Lusardi et al., 2010).

## DIFFERENCES BY FIRST-GEN STATUS

- First-gen participants felt less confident about sticking to financial plans (perceived control) compared to other participants (see Fig. 18).
- First-gen participants reported shorter planning horizons (see Fig. 19).
- First-gen participants also reported lower financial self-efficacy and saw a decline from baseline on this measure (down 7%) though it had increased for their peers (up 3%) (see Fig. 20).

In the APLUS sample, many first-gen students are also classified as lower-SES participants. Given that lower-SES participants were underperforming their middle- and higher-SES peers, it's not surprising that first-gen participants displayed similar patterns (Elliott & Friedline, 2012).

FIG. 17: SELF-ASSESSED EFFICACY BY RACE/ETHNICITY OVER TIME

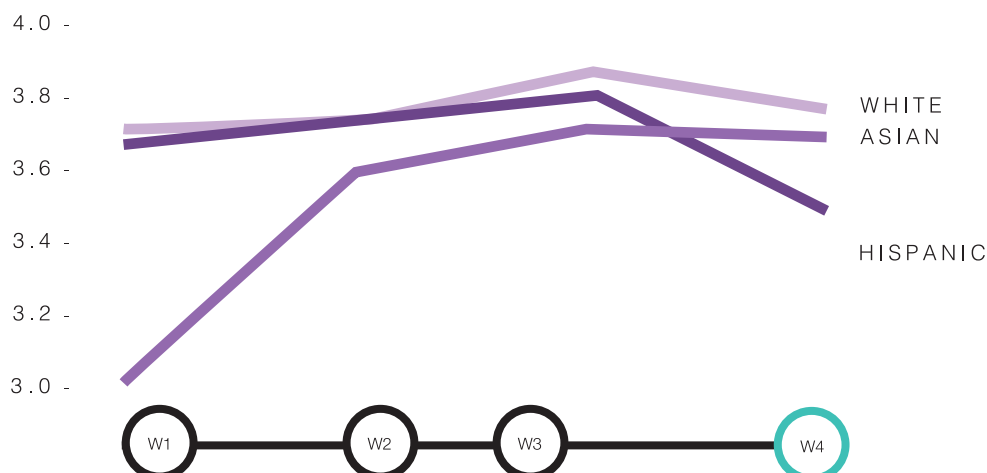


TABLE 2:  
COMPARING MEASURES OF  
PERSONAL FINANCIAL AGENCY AT WAVE 4

	WAVE 4 OVERALL	MEN	WOMEN	LOWER	MIDDLE	HIGHER	WHITE	HISPANIC	1ST-GEN	NON 1ST-GEN
PERCEIVED CONTROL (1-7)	4.71	4.73	4.69	4.58	4.84	4.75	4.80 <sup>a</sup>	4.41 <sup>b</sup>	4.27*	4.79
PLANNING HORIZON (1-6)	4.24	4.26	4.23	4.04 <sup>a</sup>	4.38 <sup>b</sup>	4.39 <sup>b</sup>	4.36	3.93	3.92*	4.30
SELF-EFFICACY (1-5)	3.64	3.78*	3.56	3.54 <sup>a</sup>	3.74 <sup>b</sup>	3.69 <sup>b</sup>	3.72 <sup>a</sup>	3.45 <sup>b</sup>	3.40*	3.69

Note: superscripts (a, b, \*) indicate statistically significant group differences

## FINANCIAL STRAIN

Because Millennials show more signs of financial stress compared to older adults (FINRA, 2016), we asked participants to indicate if they experienced any of 14 situations related to a lack of finances (see Fig. 21 on following page).

Working more hours (41%) and postponing medical/dental care (35%) were the most common strategies. We also found a number of differences related to SES:

- Lower-SES participants reported working more; postponing health care; skipping payments; overdraft protection; asking a friend for money; using one credit card to pay another and bouncing a check;
- Higher-SES participants were more likely to ask their parents for money.



FIG. 18:  
PERCEIVED CONTROL BY  
FIRST-GEN STATUS AT WAVE 4

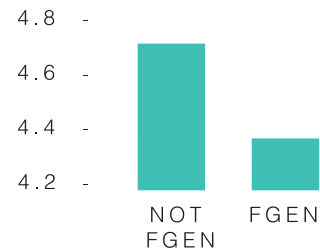


FIG. 19:  
PLANNING HORIZON BY  
FIRST-GEN STATUS AT WAVE 4

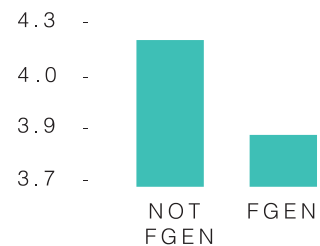


FIG. 20:  
SELF-ASSESSED EFFICACY  
BY FIRST-GEN AT WAVE 4

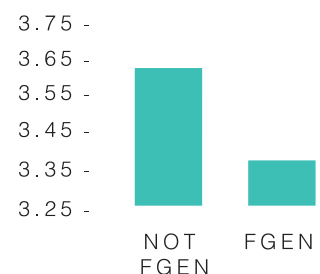
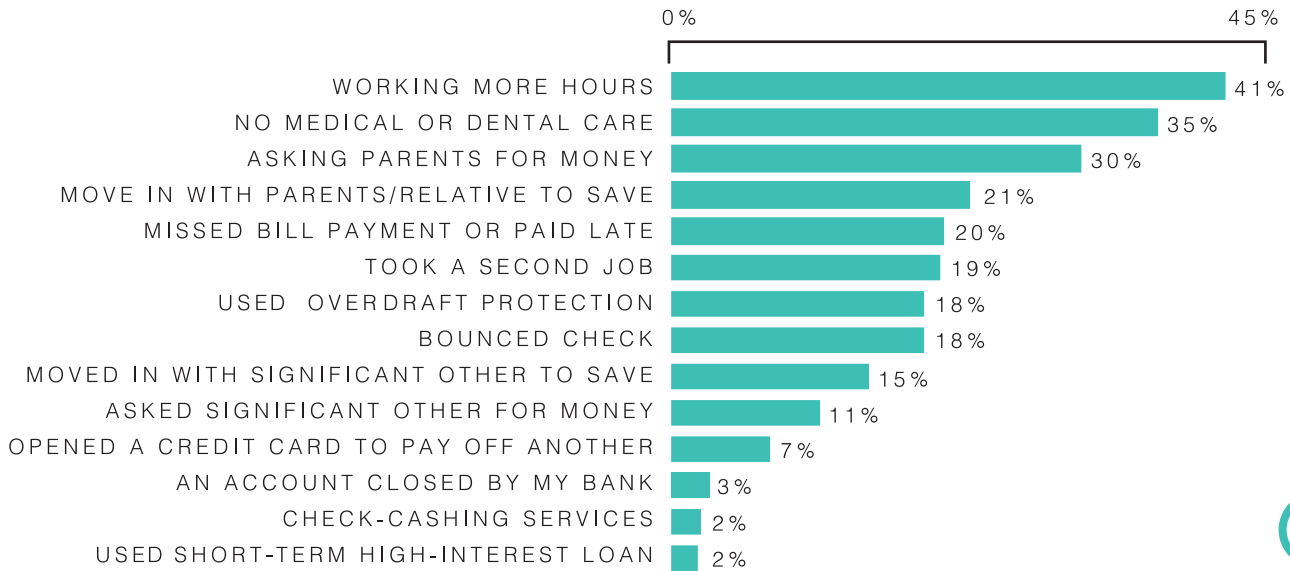


FIG. 21: THE IMPACT OF FINANCIAL STRAIN ON SITUATIONS AT WAVE 4



We also found notable race/ethnicity differences in four situations. Specifically, White participants (compared to non-Whites) were less likely to:

- Move in with their parents;
- Move in with a significant other;
- Have a bank account closed;
- Use short-term high-interest loans.

We detected only one gender difference, with women more likely to take a second job compared to men.

## FINANCIAL BEHAVIOR

Financial behavior is the action component of financial capability. Putting knowledge and agency into practice are the antecedents of financial well-being (Gutter & Çopur, 2011; Norvilitis & MacLean, 2010; Serido et al., 2013).

While the preceding section explored specific activities and events around financial strain, we broadly conceptualize financial behavior as a measure of three financial strategies, asking participants to what extent they had

engaged in each during the past six months on a scale of 1 (never) to 5 (very often):

**Reactive financial coping** — borrowing behaviors when one doesn't have enough money to cover expenses;

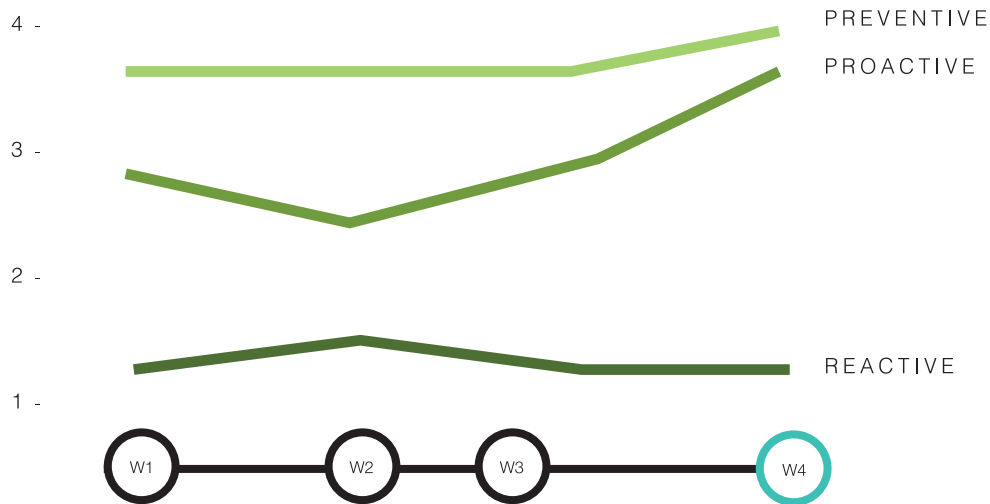
**Preventive financial coping** — basic money management to minimize future financial strain (e.g., budgeting, paying bills on time);

**Proactive financial coping** — current behaviors to achieve future financial goals (e.g., saving, investing).

We observed several differences in these behaviors by sociodemographic factors at Wave 4:

- Asian participants reported more frequent proactive coping compared to Black and Hispanic participants;
- Lower-SES and first-gen participants reported more frequent reactive coping;
- Women, lower-SES and first-gen participants reported less frequent preventive and proactive coping.

FIG. 22: FINANCIAL COPING BEHAVIOR OVER TIME



It should be noted that 89% of first-gen participants also fell into the lower-SES group, and that women at Wave 4 were earning less than men. These latter two findings again show a pattern of more marginal and/or vulnerable groups underperforming their peers.

We also found that APLUS participants' use of these strategies has been trending towards overall improvement (see Fig. 22).

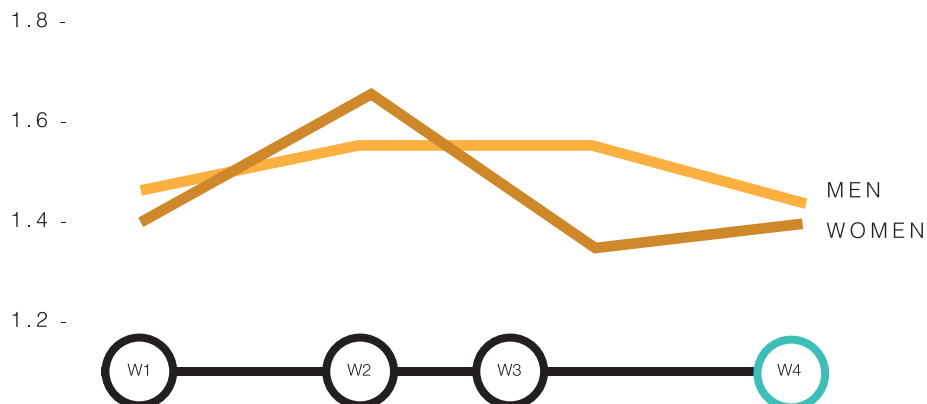
- After peaking at Wave 2, participants' borrowing behaviors (**reactive coping**) decreased (down 1.4% by Wave 4), likely because participants were no longer borrowing for college and the fact that many had gained employment by Wave 3, two years out of college.

- Participants steadily improved their basic money management practices (**preventive coping**) for a total 6% gain by Wave 4.

- Participants also got better at saving and investing (**proactive coping**) for a total 24.6% improvement by Wave 4, likely due to more of them having full-time jobs and employer benefits.

Only one difference over time by sociodemographic factors emerged: Women were more frequent borrowers (**reactive coping**) by Wave 2 (up 6.1%), then less frequent borrowers by Wave 3 (down 18.1%) before closing the gap with men again at Wave 4 (see Fig. 23).

FIG. 23: REACTIVE BEHAVIOR BY GENDER OVER TIME



## FINDINGS

# BENEFITS, HEALTH INSURANCE & FINANCIAL SERVICES

## KNOWLEDGE AND ACTIVITY IN ADULT FINANCIAL DOMAINS

More than half of Millennials (56%) report that a quality benefits package has influenced their choice of employers, and 63% report that benefits are an important reason for staying with an employer (National Chamber Foundation, 2012).

We were interested in how much Millennials actually know about employer benefits, the extent of their personal experience in these domains and where they get their information.

## SELF-ASSESSED KNOWLEDGE OF BENEFITS & HEALTH POLICIES

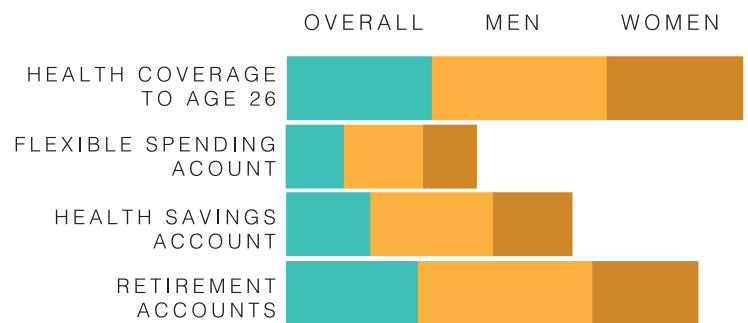
We asked APLUS participants to rate their knowledge, on a scale from 1 (not at all) to 5 (quite a bit), of four items:

- Coverage by parents' health insurance to age 26
- Flexible spending accounts
- Health savings accounts
- Retirement

Overall, participants were most confident about their knowledge of the "health

FIG. 24: POLICY & BENEFITS KNOWLEDGE AT WAVE 4

W4



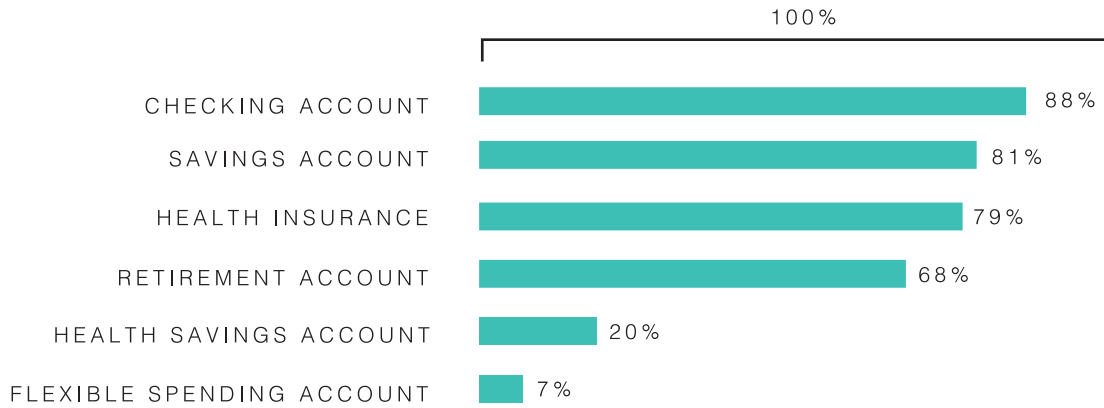
coverage to age 26" policy (instituted as part of the Affordable Care Act). They were least confident about their understanding of flexible spending accounts.

We also found no significant differences across sociodemographic factors save one (see Fig. 24):

- As with self-assessed financial knowledge discussed earlier, men were more confident in their knowledge than were women;
- The greatest difference was linked to knowledge about retirement accounts, for which men's self-assessments were 19% higher than women's.



FIG. 25: FINANCIAL & BENEFITS EXPERIENCE AT WAVE 4



## DIRECT EXPERIENCE WITH FINANCIAL & HEALTH SERVICES

To better understand our participants' personal experiences, we also asked what financial services and health benefits they had in their own names (see Fig. 25).

More than 80% had a checking or savings account and most had both, consistent with data from earlier waves of the APLUS study.

We also observed that the topics participants said they best understood corresponded to areas where they had personal experience: health insurance the most, followed by retirement accounts and HSAs, with FSAs last.

The match in those patterns suggests that access and experience is linked to greater self-assessed knowledge.

## SOURCES & AMOUNT OF KNOWLEDGE-SEEKING

Finally, we asked participants how they learned about health and retirement benefits from seven sources on a scale from 1 (not at all) to 5 (quite a bit).

Overall, participants rated parents as their primary source of knowledge, and siblings as their least relied-on resource. We also

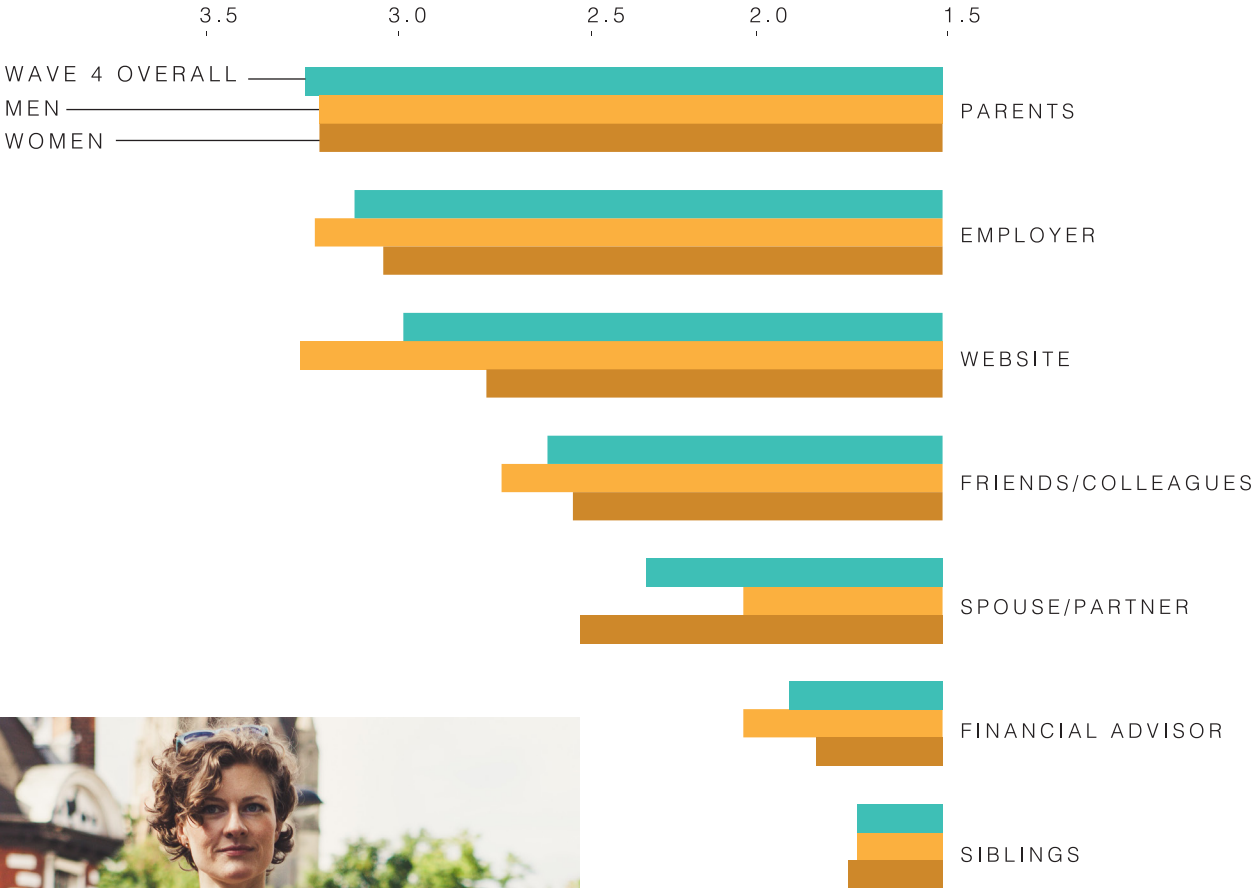
found gender differences in how participants approached learning about these topics (see Fig. 26 on the following page):

- For men and women, the top three resources were the same but ranked in reverse: parents-employers-websites for women and the opposite for men;
- On average, men consulted a greater variety of sources than did women;
- Men also expressed greater reliance on those sources they consulted.

We also found that SES and ethnicity influenced how much participants used various sources of information:

- Participants from higher-SES families, compared to those from middle- and lower-SES backgrounds (3.64 vs. 3.36 and 2.75 respectively) were more likely to report parents as a source;
- Asian participants were more likely than Hispanic participants to report financial advisors as a source (2.26 vs. 1.64).

FIG. 26: SOURCES OF POLICY & BENEFITS KNOWLEDGE AT WAVE 4





## FINDINGS

# FINANCES & WELL-BEING

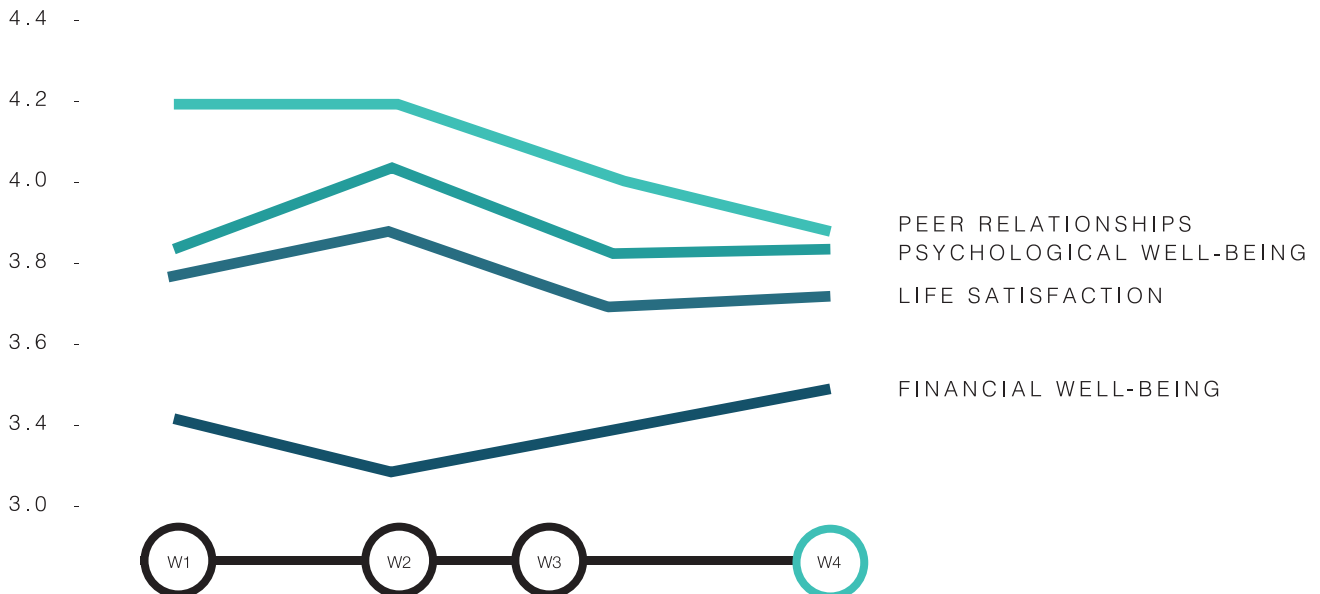
### HOW FINANCES AFFECT RELATIONSHIPS, SATISFACTION AND WELL-BEING

Today one in three working Americans are Millennials (Taylor et al., 2014). Financially optimistic yet economically restrained, Millennials want more than just a bigger paycheck (Adkins & Rigoni, 2016). While they do want financial stability, they're also more likely than previous generations to trade income for quality of life (Rigoni & Nelson, 2016).

Given those values, we wanted to know if APLUS participants were experiencing well-being. As in previous waves, we asked them to rate their well-being in multiple life domains, each measured on a low-to-high 5-point scale (see Fig. 27):

- Peer relationships
- Psychological well-being
- Life satisfaction
- Financial well-being

FIG. 27: CHANGES IN WELL-BEING OVER TIME



## WELL-BEING OVER TIME

Over the eight years of APLUS, we've seen change as well as relative stability in measures of well-being:

- Peer relationships continued trending downward, declining 9% and likely reflecting less time with friends as compared to during college years;
- Psychological well-being, which peaked when leaving college (Wave 2), was virtually the same at Wave 4 as it was in Waves 1 and 3;
- Although life satisfaction declined by 2% compared to baseline, it was up 1% compared to Wave 3;
- Financial well-being continued an upward trend, up 3% from baseline and 4% compared to Wave 3.

## WELL-BEING & FINANCIAL CAPABILITY

The underlying assumption in APLUS is that young adults' financial knowledge and skills are positively connected to their well-being.

Our findings and others do demonstrate that multiple dimensions of financial capability are associated with greater life satisfaction (e.g.,

Gutter & Çopur, 2011; Norvilitis & MacLean, 2010; Serido et al., 2013).

To test that connection at this stage of participants' lives, we looked at links between financial capability and domains of well-being (see Table 3), finding:

- Every measure of financial capability was significantly correlated with financial well-being;
- For each aspect of well-being, financial efficacy had the strongest association;
- Objective financial knowledge was significantly associated with only financial well-being.



TABLE 3: ASSOCIATIONS BETWEEN FINANCIAL CAPABILITY & WELL-BEING

Note: \*  $p < .01$ ; all other correlations significant at  $p < .000$

		PEER RELATIONSHIPS	PSYCHOLOGICAL WELL-BEING	LIFE SATISFACTION	FINANCIAL WELL-BEING
KNOWLEDGE	OBJECTIVE	-0.02	0.02	0.04	0.10*
	SUBJECTIVE	0.17	0.29	0.22	0.29
FINANCIAL AGENCY	PERCEIVED CONTROL	0.20	0.30	0.28	0.40
	PLANNING HORIZON	0.11*	0.19	0.20	0.28
	FINANCIAL EFFICACY	<b>0.22</b>	<b>0.42</b>	<b>0.41</b>	<b>0.57</b>
FINANCIAL BEHAVIOR	REACTIVE COPING	-0.09*	-0.15	-0.13	-0.29
	PREVENTIVE COPING	0.20	0.32	0.29	0.31
	PROACTIVE COPING	0.17	0.33	0.35	0.51

## PARENTAL/FAMILY SUPPORT & WELL-BEING

Are young adults today relying on their parents to underwrite their lifestyle, or are young adults making the best of a volatile economic landscape?

We explored this question by looking at participants' well-being, our reasoning being that higher levels of satisfaction and well-being positively linked with financial help from family could arguably signal that young adults were reaping broader benefits from the greater financial stability that comes with monetary support.

Using the same items previously reported, we found instead that those receiving support reported lower levels on every measure of well-being. The fact that even with financial help these participants are feeling a lower quality of life suggests that they could be making the best of a challenging economic reality.

for the hypothesis that employment matters significantly in quality of life (see Fig. 28):

- FTE and self-employed participants reported the highest levels of well-being across all five measures;
- Consistently third for all five domains were participants who worked part-time and weren't looking for FTE;
- Unemployed participants reported the lowest level of well-being in all domains.

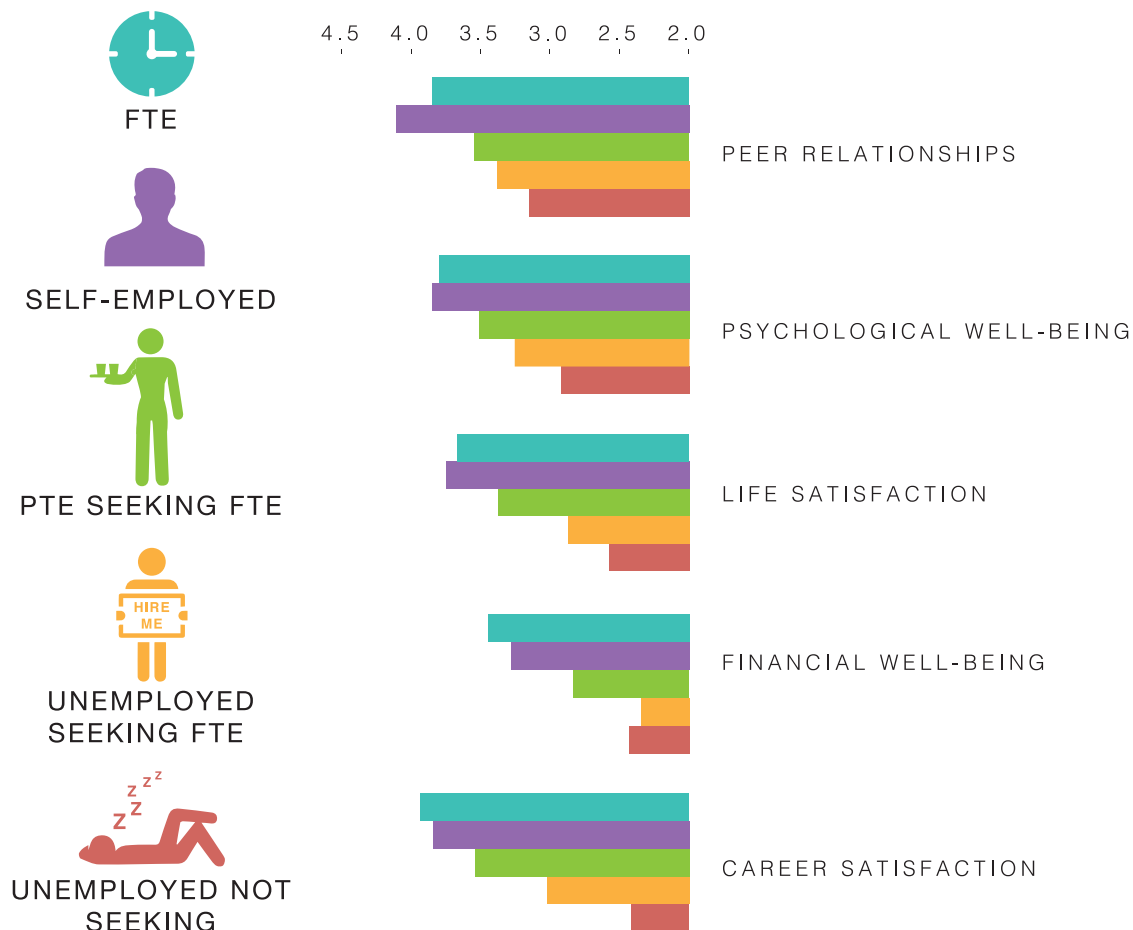
## STUDENT LOAN DEBT AND WELL-BEING

Nearly 40% of young adult households (ages 20-29) are repaying student loan debt (Ratcliffe & McKernan, 2013); and with that debt comes increased risk for lower financial well-being, including lower net worth and higher financial strain (Zhan et al., 2006).

## EMPLOYMENT & WELL-BEING

To further explore the links between work and well-being among Millennials, we also looked for connections between APLUS participants' employment status and each domain of well-being, finding strong support

FIG. 28: EMPLOYMENT STATUS & QUALITY OF LIFE AT WAVE 4



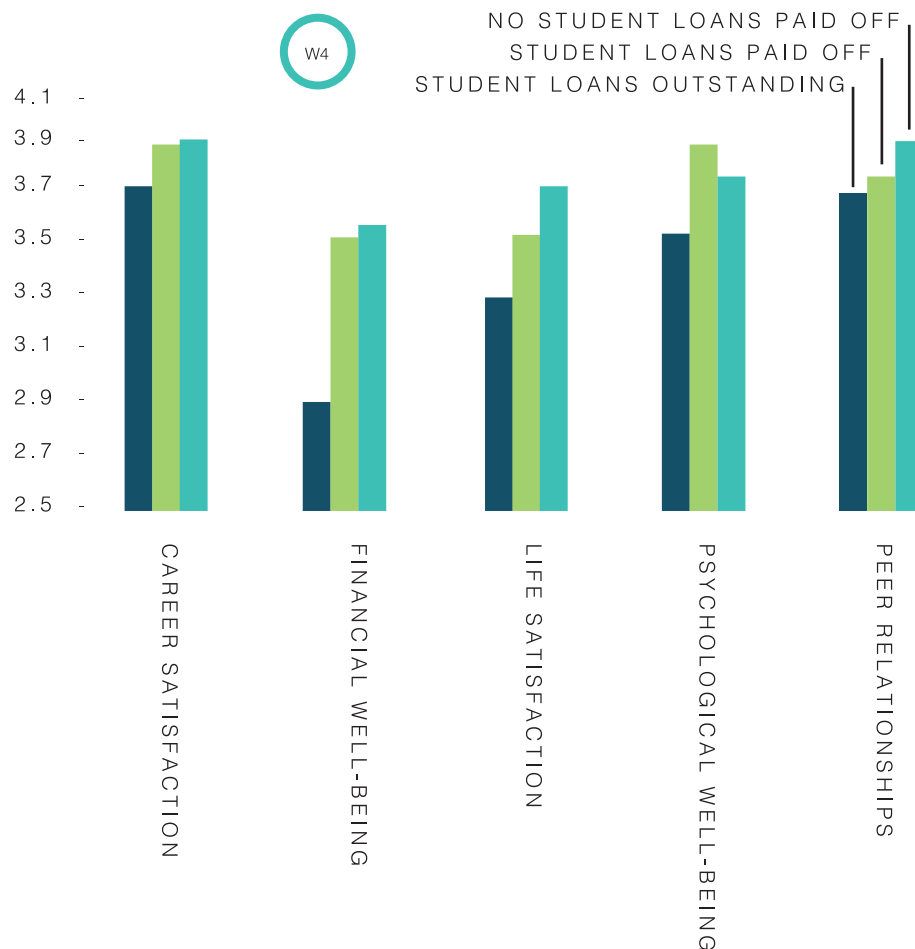
We examined the association between student loan debt and well-being, first dividing the participants into three groups: those who graduated with no debt; those who paid off their student loans; and those with loans outstanding. We then looked for connections between student loan status and each domain of well-being and found that outstanding student loans reduced well-being in all domains (see Fig. 29):

- There were no differences in levels of well-being between participants who graduated without loans and those who paid them off;
- However, participants who currently had outstanding student loan debt reported lower levels of well-being across all five measures;
- These included an 18% difference in financial well-being (the largest

discrepancy), followed by life satisfaction (-11%), psychological well-being (-8%), career satisfaction (-7%) and peer relationships (-5%).



FIG. 29: STUDENT LOAN DEBT & QUALITY OF LIFE AT WAVE 4





## FINDINGS

# FINANCES & GOAL ACHIEVEMENT

### WHAT YOUNG ADULTS WANT AND WHERE FINANCES INTERFERE

Financial self-sufficiency, defined as the ability to meet financial obligations without relying on others for help, has historically been a hallmark of adult status. Today, however, nearly 36% of young adults (ages 18-34) receive financial help from family members not residing with them (FINRA, 2016).

Similarly, 40% of our Wave 4 participants reported receiving financial support from family (parents, grandparents, siblings and/or a spouse/partner).

That number is a sharp 30% drop from Wave 3, showing the young adults in the APLUS study have made considerable progress towards financial self-sufficiency in the past few years.

Interestingly, women were more likely (31%) to report receiving financial help from family, as were three other groups:

- Participants with annual incomes below \$40,000 (30% more likely);
- Participants from higher-SES families (36% more likely);

- Participants with student loans (50% more likely).

### FINANCES, INTERFERENCE & LIFE GOALS

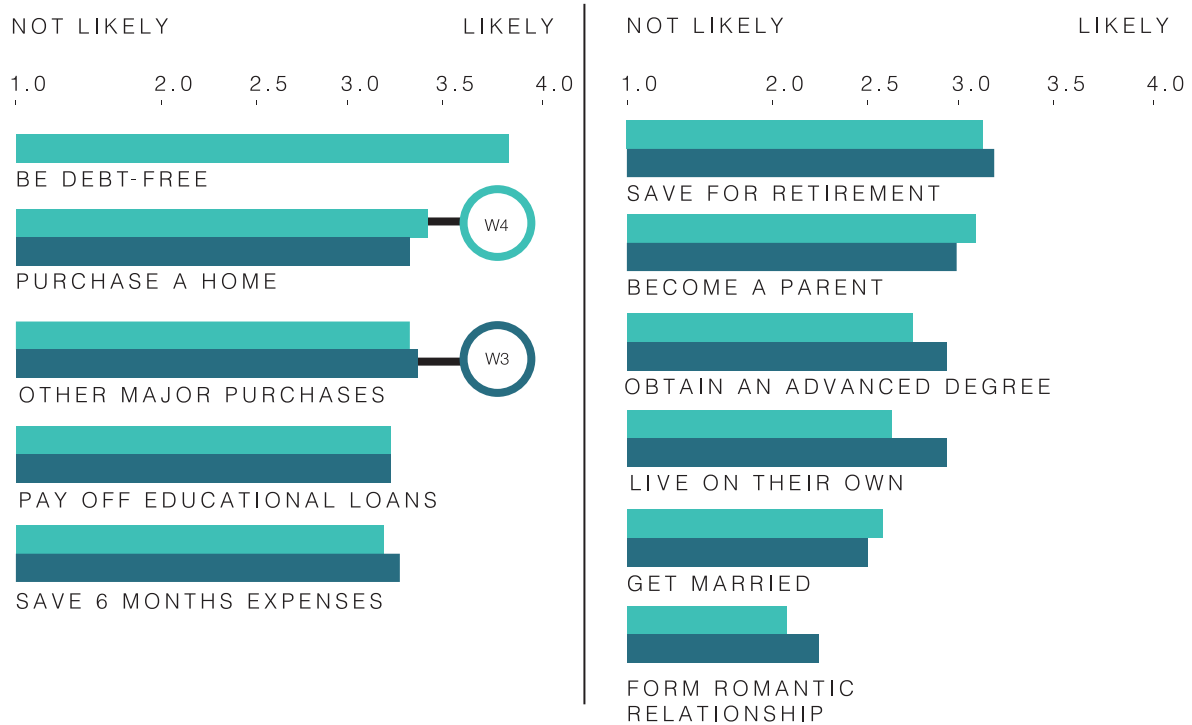
The young adults surveyed in Wave 4 transitioned to adulthood at the height of the American economic downturn. Like many households across the U.S., they had to modify their goals to navigate a changing and uncertain economy (Chakrabarti et al., 2015).

As in Wave 3, we asked participants how much their current financial situation interfered with their ability to achieve 10 life goals historically associated with young adulthood.

Because their generation is experiencing higher student loan debt, delayed employment, and less certainty about future wealth and income (Taylor et al, 2014), we also added an eleventh life goal for the Wave 4 survey: to be debt-free (see Fig. 30 on the following page). For all items we asked to what extent financial concerns were preventing achievement towards the goal or event, measured on a scale from 1 (“not at all likely”) to 5 (“very likely”).

Overall, participants said their finances were less of an interference than they’d reported

FIG. 30: CHANGES IN HOW FINANCES INTERFERE WITH LIFE GOALS



in Wave 3, perhaps reflecting improved financial income (see Fig. 30). However, it’s worth noting that White participants reported less interference relative to groups of non-Whites and that finances were more likely to interfere with goals for lower-SES and first-gen participants.

### CHANGING IMPORTANCE OF SOME LIFE GOALS

Some researchers have suggested that changing goals and values may partly account for the delay in Millennials reaching historically traditional milestones of adulthood (National Chamber Foundation, 2012).

As we had in the Wave 3 survey, we again asked participants to identify any of the life goals we asked about that weren’t important to them, then compared their responses to the earlier data.

As Figure 31 shows, the number of participants tagging certain achievements as “not important” increased for seven of the 10 goals presented in both surveys.

It’s important to consider that the four measures that show the greatest change — getting married, forming a romantic relationship, living independently and obtaining an advanced degree — are goals that we know many participants had achieved by Wave 4, perhaps accounting for more participants noting those goals as not important.

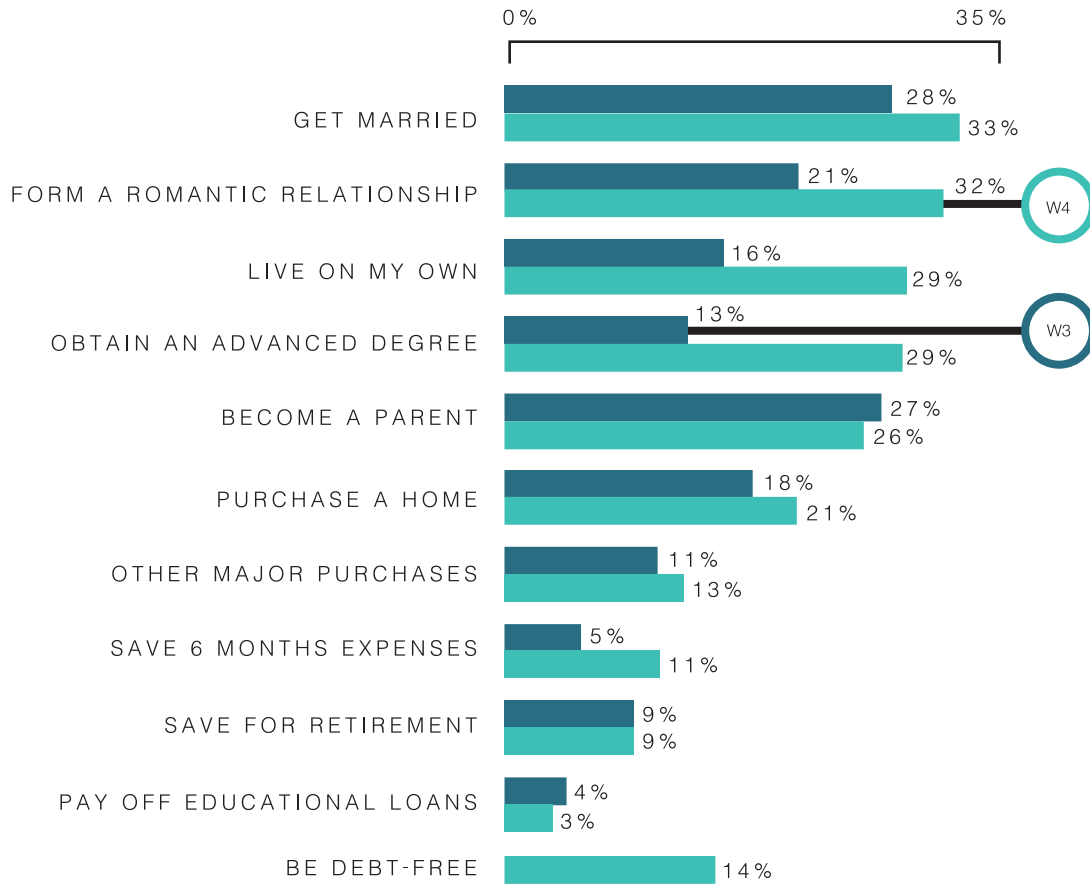
Other areas where we saw significant changes between Wave 3 and Wave 4:

- More participants now said buying a home was not important;
- More participants now said it was unimportant to save enough money to cover six months of expenses;
- Fewer participants now said it was unimportant to pay off their student loans.

As noted earlier, the goal of “being debt-free” was a new item at Wave 4, and only 14% of participants indicated that it was unimportant to them.



FIG. 31: GOALS NOT IMPORTANT TO PARTICIPANTS AT WAVE 4



## FINDINGS

# STUDENT LOAN DEBT

## REPAYMENT STATUS, BARRIERS, STRATEGIES AND STRESS

Although Millennials are the most educated cohort of young adults in American history, they also have higher levels of student loan debt than Gen Xers and Boomers had at their age (Pew Research Center, 2015).

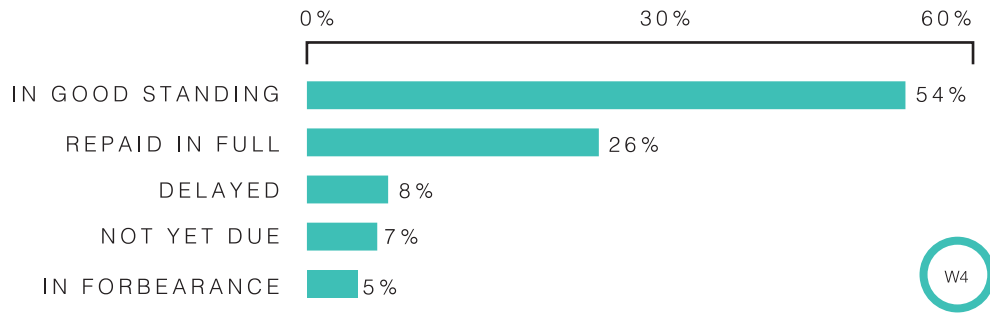
In fact, student debt now exceeds \$1 trillion (Bricker et al., 2015) and repayment delinquency rates are rising steeply (College Board, 2016).

We know that repayment default rates are more highly correlated with certain types of educational institutions (e.g., community colleges), certain demographics (e.g., students of color, older students) and certain socioeconomic characteristics (students with more dependents, lower-SES).

Beyond those correlations, however, there is remarkably little scientific data providing meaningful insight into how students are attempting to repay their loans or the barriers they face.

To address this gap in understanding, we asked APLUS participants at Wave 4 a number of questions about their experiences repaying education debt.

FIG. 32: STUDENT LOAN STATUS AT WAVE 4



## STUDENT LOAN REPAYMENT

Less than 1% of APLUS participants still carrying education debt were in default. Most were making significant progress toward repayment, though some were struggling (see Fig. 32):

- 8% said they had missed or been late on (delayed) payments;
- 5% of participants said their loans were in forbearance.

## WHO CARRIED DEBT

Most APLUS participants (57%) had graduated with no student loans. Within that group, perhaps not surprisingly, 55% came from higher-SES families, 23% from middle-SES and 22% from lower-SES families.

Among those who did have student loans at graduation, 11% had already repaid their loans at the time of the survey, leaving 32% of the sample with education debt at Wave 4.

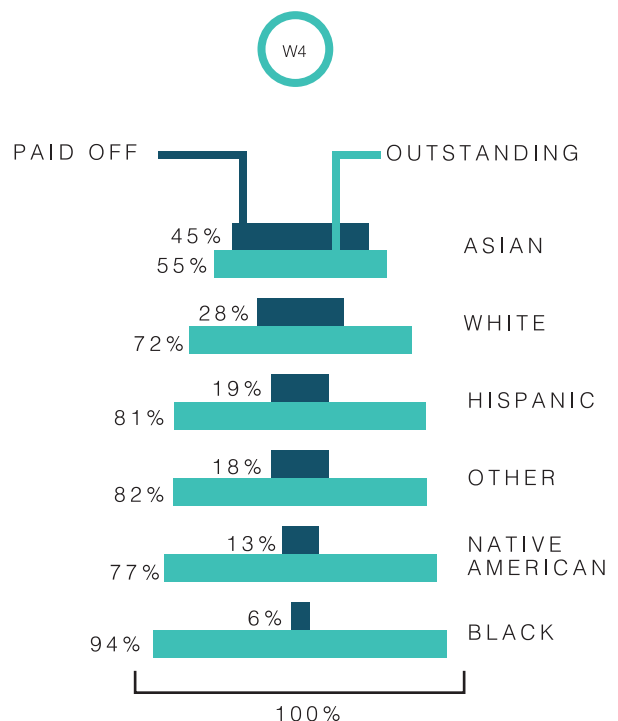
Their debt currently averaged \$26,000 per participant, a figure on par with data from the Pew Research Center, which found that recent bachelor's degree recipients have an average student loan debt of \$27,000.

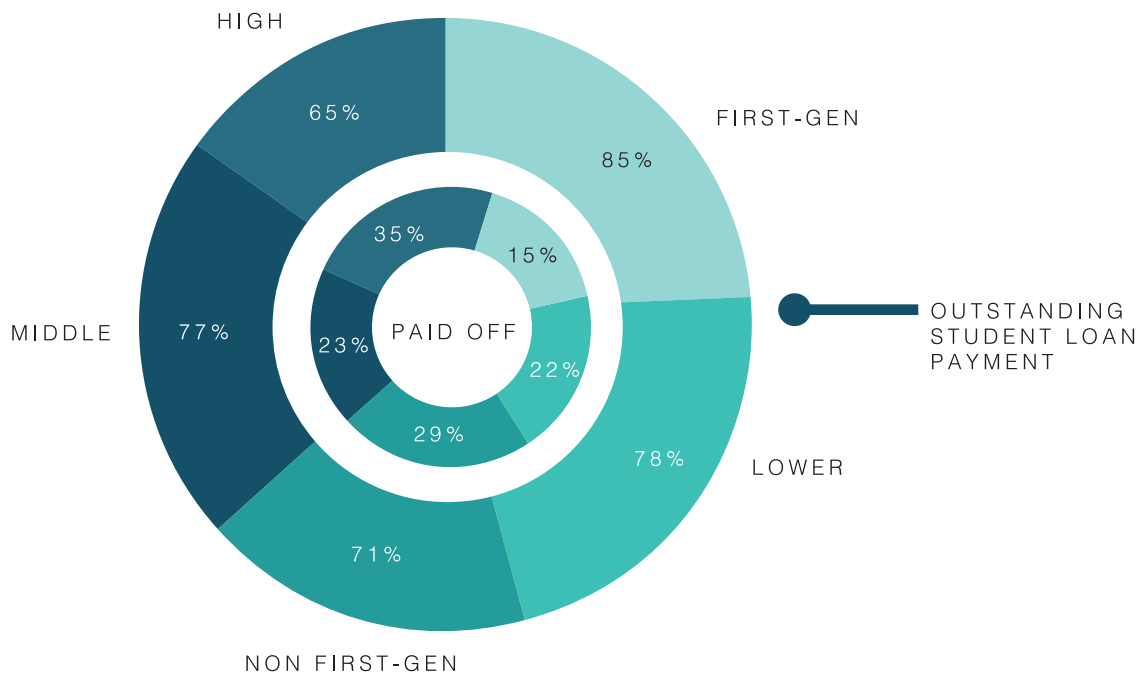
Although there were no sociodemographic differences in the average outstanding student loan amount, we did find notable

differences in which participants were still carrying student loan debt (see Fig. 33 & 34).

- Black, Hispanic, and Native American participants were more likely to have outstanding student loans compared to Asian and White participants.
- Lower- and middle-SES and first-gen participants were more likely than their peers to have outstanding student loans;

FIG. 33: STUDENT LOAN REPAYMENT STATUS BY RACE/ETHNICITY AT WAVE 4





W4

FIG. 34: STUDENT LOAN REPAYMENT STATUS BY SES & FIRST-GEN AT WAVE 4

### DIFFERENCES IN REPAYMENT STATUS

We observed a handful of differences in repayment status by gender:

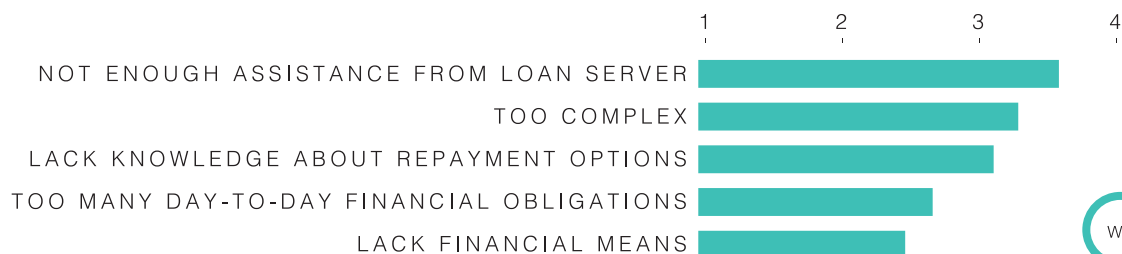
- More men than women had paid their education loans in full (28% vs. 25%), possibly reflecting that more men than women reported making \$60,000/year or more (56% vs. 27%);
- More men than women expected to pay off their education loans ahead of schedule (22% vs. 16%);
- More women than men reported making regular payments (14% vs. 5%).

### REPAYMENT BARRIERS

A recent policy brief from the Global Financial Literacy Excellence Center noted that repaying student loan debt is a serious concern for many Americans (Lusardi et al., 2016). While delinquency rates were low among APLUS participants, we did examine their repayment experiences by asking them to rate the impediment of potential barriers on a scale of 1 (low) to 5 (high).

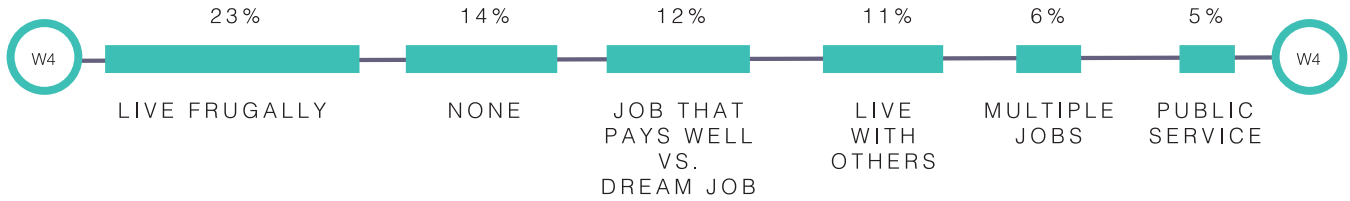
Interestingly, the barriers that ranked highest related to navigating the repayment process, ahead of barriers related to financial strain (see Fig. 35).

FIG. 35: BARRIERS TO STUDENT LOAN REPAYMENT AT WAVE 4



W4

FIG. 36: STUDENT LOAN REPAYMENT STRATEGIES AT WAVE 4



Some sociodemographic factors influenced participants' thoughts on barriers to repayment. Specifically, we observed that:

- Women saw complexity and lack of knowledge about options as greater barriers compared to men (3.21 vs. 2.81 and 3.01 vs. 2.67, respectively);
- Financial strain was a greater barrier for lower-SES participants compared to higher-SES participants with respect to financial obligations (2.66 vs. 2.25) and lack of financial means (2.47 vs. 2.08);
- First-gen students also saw excessive financial obligations as a greater barrier compared to their peers (2.78 vs. 2.41).

## REPAYMENT STRATEGIES

We asked the participants who had taken out student loans to indicate up to three strategies (from a list of seven) that they had used in repaying their loans (see Fig. 36).

- Nearly one in four (23%) participants said their strategies included living frugally, which made it the most-chosen response;
- Only 5% indicated taking a public service job as part of their repayment strategy;
- Nearly 14% of participants reported having no strategy for repaying their student loans; this may be due, in part, to the fact that overall, participants at Wave 4 report modest difficulty or negative

impact associated with repayment and may simply be looking to continue their status quo.

## REPAYMENT STRESS

Young adults who are successfully repaying their loans may still experience diminished psychological well-being (Walsemann et al., 2015). We asked the APLUS participants

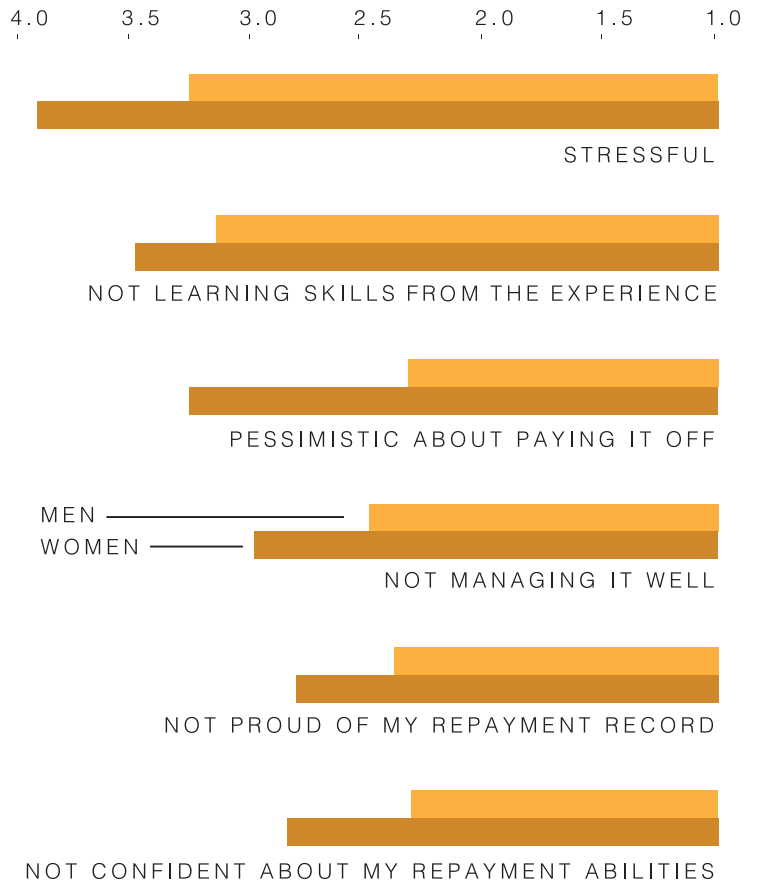
FIG. 37: STRESS AROUND STUDENT LOAN REPAYMENT AT WAVE 4





W4

FIG. 38:  
REPAYMENT STRESS BY GENDER  
AT WAVE 4

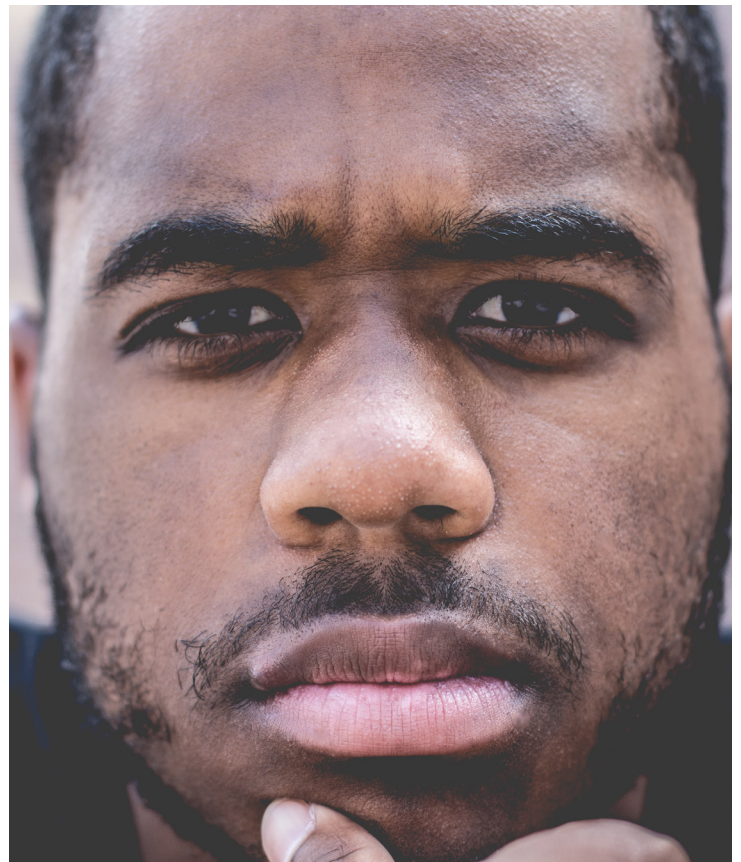


about negative feelings associated with their repayment experience (e.g., stress, feeling pessimistic), measured on a 7-point scale.

For each measure, higher scores indicated more serious impact. Participants' scores averaged below the midpoint of 4 for every question (see Fig. 37 on the previous page). Thus, it's fair to say that overall, participants are both accepting and handling the responsibility for repaying their loans.

At the same time, we observed several differences in the repayment experience linked to sociodemographic factors:

- First-gen participants reported greater pessimism about paying off their loans compared to their peers;
- Compared to White participants, Black and Hispanic participants reported higher negative impact on two measures (“more stressful” and “greater pessimism about paying off”);
- Compared to higher-SES peers, lower-SES participants reported significantly greater negative impact on those same two measures (“more stressful” and “greater pessimism about paying off”);
- Women reported significantly more negative impact than men on five of the six measures (all but “not learning skills”).





## A NEW MODEL FOR LOAN REPAYMENT OUTCOMES

# RESOURCES, CAPABILITY, & APPROACH

### UNPACKING THE DATA ON REPAYMENT BEHAVIOR & WELL-BEING

When young adults fall off track in their student loan repayments, it's easy to assume the cause is simply a lack of sufficient means. The full story is somewhat more complex.

While unemployment does make one statistically more likely to experience difficulty repaying loans, we found that participants overall saw insufficient funds and excessive financial obligations as the least significant barriers to repayment.

We also found that sociodemographic factors were linked to who was and wasn't successfully navigating repayment: First-gen participants and those from lower-SES families tended to be behind in loan repayment, consistent with other research on this topic.

### THE SEARCH FOR NEW INFORMATION

While these findings are important, our long-term goal for the APLUS study is to move beyond confirming what we already know and identify new factors that might help us address underlying issues through future research, practice and interventions.

For example, to further explore the roots of sociodemographic differences, we looked at whether earlier measures of financial capability and agency might account for later difficulty with repayment. Put simply, had these participants been less financially knowledgeable and responsible compared to others?

Our research shows they had not. Re-examining all four waves of data, we found no significant differences in objective financial knowledge or responsible financial practices.

Participants now having trouble repaying their education debt had, statistically, displayed just as much financial knowledge and they had previously shown similar levels of healthy financial behaviors.

In that same spirit of inquiry, we wondered if young adults' general approach to solving real-life problems might provide insights into what distinguished between those who were having difficulty repaying their loans and those who weren't. In other words, were those with a more active approach to problem-solving more likely to be on track with repaying their student loans?

## PROBLEM-SOLVING APPROACHES

To address this question, we asked Wave 4 participants to complete a validated and commonly used 25-item problem-solving assessment (D’Zurila et al., 2004).

Each indicated the extent to which he/she identified with various statements (e.g., “I wait to see if a problem will resolve itself first before trying to solve it myself.”) on a 5-point scale from “not at all true of me” to “extremely true of me.”

We then constructed a conceptual model (see Fig. 39) to see if participants’ approach to problem-solving correlated with their repayment behavior and, in turn, with their mental health. We also included financial resources and financial capability in the model to distinguish the effects of each on mental health.

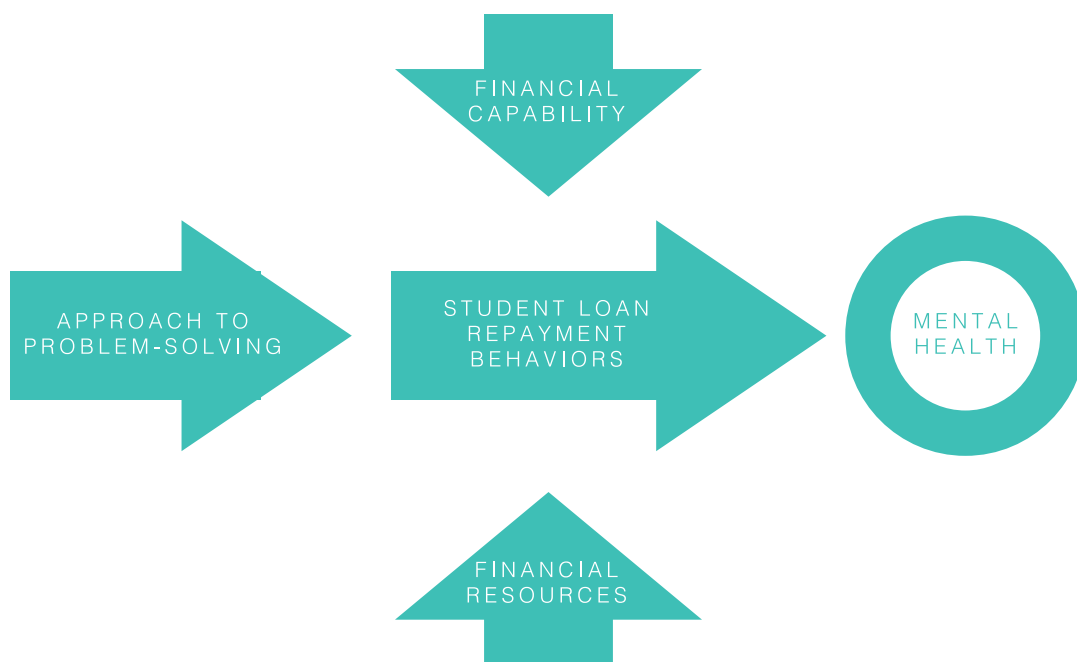
From this analysis, we observed that participants who were having difficulty repaying their student loans exhibited more avoidant problem-solving approaches, (e.g., avoided dealing with problems) and more

negative emotions (e.g., felt anxious or frustrated) compared to their peers. These participants also reported higher levels of emotional distress, more symptoms of depression and lower quality of life.

Integrating the data across these various measures, we concluded that, as expected, financial resources and capability play important roles in repayment behavior. The model also demonstrated why, as we saw in APLUS data, having enough money does not, in itself, translate to successful loan repayment: Those facing loan repayment difficulty were less effective problem-solvers.

Recognizing the interplay of these three drivers has important implications for future research and policy. Problem-solving approaches may be an underlying challenge to financial capability and something to address through education. While we can’t actually increase a borrower’s income, we may be able to mitigate the impact that lower incomes create by nurturing a more positive approach to problem-solving in general.

FIG. 39: PROBLEM-SOLVING, FINANCIAL CAPABILITES, AND STUDENT LOAN PAYMENT





## IMPLICATIONS

# SHAPING POLICY & PRACTICE

### IDEAS FOR EDUCATORS AND EMPLOYERS, LOAN GUARANTORS, PRACTITIONERS, PARENTS AND YOUNG ADULTS

Our findings at Wave 4 — empirical data presented in this report as well as our review of open-ended narrative responses that were also part of the survey — paint a portrait of an adaptable and responsible generation. At the same time, they offer insights for informing policy and practice to better promote well-being among young adults, and, in turn, across our economy.

#### FOR POLICYMAKERS

Lack of affordable college and alternative postsecondary education options have far-reaching personal and national consequences.

The relatively strong employment status of APLUS participants echoes findings that most jobs created since the Great Recession have gone to applicants with a college degree (Carnevale, Jayasundera & Gulish, 2016).

However, the high cost of postsecondary education may be driving today's longer

transition to adult self-sufficiency.

That lengthier transition could erode long-term financial well-being for young adults, preventing them from adequately saving for retirement. The concurrent need for continuing financial support from family also threatens retirement security for their parents.

These challenges portend a rippling effect across a range of consumer industries, including housing, health care and financial services.

The APLUS data also show a “wellness gap” between young adults with and without continuing education debt. We have yet to see if those differences resolve or worsen over time.

#### FOR EMPLOYERS

The workplace offers a valuable setting for timely education that could potentially improve personal and national financial well-being.

Our findings show that young adults may not fully understand the value of certain benefits or their associated terms and conditions.



In addition to orientation sessions at the time of hire, employer-provided follow-up conversations and webinars on financial and health-related benefits may be helpful, particularly if timed to coincide with important life changes (e.g., getting married, taking on a new role at work).

We also observe sociodemographic differences in saving and investing among young adults. Since first-time employment and its steady income offers a chance to try new financial behaviors, some level of employer-offered financial education could help more new employees adopt responsible behaviors, mitigating the risks — personal and economic — outlined above.

### **FOR STUDENT LOAN GUARANTORS & SERVICERS**

*Lenders can improve repayment outcomes by simplifying information and processes for borrowers.*

The myriad terms and conditions across a host of student loan options can make the landscape of education financing challenging and even overwhelming for some young adults. Our findings show that this complexity interferes with student loan repayment, above and beyond insufficient income or competing financial needs.

Although the responsibility for student loan repayment ultimately rests with the borrowers, providing consistent and clearer information could boost repayment compliance, not only lessening frustration among the young adults carrying these debts, but improving financial outcomes for lenders as well.

### **FOR PRACTITIONERS & PARENTS**

*Expanding educational programs — both in terms of what's taught and who we teach — may help young adults thrive through better financial choices.*



Educational programs that engage participants through relevant, applied financial knowledge can change attitudes and behavior. In Wave 4, we see that parents remain a critical source of financial information for young adults. It follows that expanding financial education programs aimed at youth to include parents may help improve young adults' financial behaviors.

Programs that help parents understand education financing, teach them how to negotiate aid and help them better share information with their college-bound children may help young adults make more informed choices before they take out loans.

Teaching parents how to offer nonfinancial support later (encouragement, repayment expectations) may improve loan compliance and could potentially temper the negative effects of education debt on well-being.

Finally, our current and past research shows certain groups trailing their peers on measures ranging from financial self-confidence to financial and psychological well-being. In Wave 4, we see discrepancies arising for some racial/ethnic minorities, young adults from lower-SES families and first-gen participants and, in some areas, for women. These findings highlight the need for culturally sensitive programming, engaging community members and leaders to reach these higher-risk populations.

## **FOR YOUNG ADULTS**

*Active, informed decision-making is key to greater well-being.*

Active problem-solving is linked to greater well-being and improved quality of life.

Adopting this strategy is especially important when financial resources are constrained — a common condition for young adults of every generation.

We also observe that student loans can

impede a person's ability to pursue advanced degrees, reach life goals and enjoy a higher level of well-being. Thus, it's important that young adults, when considering college, evaluate how their choices will impact future finances and aspirations. In fact, for any financial services decision — from student loans and credit cards to retirement savings — a first step should always be to tenaciously seek clarity on terms and conditions.

Finally, prospective borrowers should be taught how to find scholarships and grants to help pay for their education. They should consider lower-cost options like beginning their higher education at community colleges, attending in-state universities or even living at home during college to save money, recognizing that they'll likely enjoy life in their dream city after graduation more if they don't have excessive student loans weighing them down.

## **FOR RESEARCHERS**

In Wave 4, we explored another area of opportunity for helping young adults successfully manage life challenges: improving their problem-solving skills. Our data show that a more active approach to problem-solving in general played out in more successful loan repayment.

Since decision-making during early adulthood becomes more and more a process of selecting actions with the fewest negative consequences, it may be that examining the nexus of problem-solving and decision-making in future research will identify strategies for dealing with multiple and simultaneous challenges in life, from relationships to employment issues to personal health.



## CONCLUSION & NEXT STEPS

# A GENERATION MOVES FORWARD

### ADVANCING THROUGH DEBT, UNCERTAINTY AND FLUX

We know that individuals do not develop independently of their environment; both are evolving, and adaptation under changing conditions contributes to resiliency (Henry, Morris & Harrist, 2015; Masten & Monn, 2015). The APLUS project provides a framework for examining the interplay between resources, financial capability and adult-life outcomes, including finding employment, reaching life goals and maintaining well-being.

It does so by examining not at a single point in time but an unfolding process of maturity for a cohort of the Millennial generation. What began as an inquiry into how college students form financial behaviors has become a chronicle of the passage to adulthood for the first generation of young adults in the 21st century.

For them, the paths of personal development have repeatedly been met with unexpected and sometimes extraordinarily disruptive external change. Given those challenges, we're struck by the progress these young adults have made, advancing in a normative pattern despite considerable uncertainty and flux.

Notably, many of our findings echo those of national surveys (e.g., FINRA, 2016; Fry, 2016; Pew, 2015) and academic research (e.g., Billari & Liefbroer, 2010; Settersten, 2012), suggesting that our data have broad application and that our observations have relevance beyond the participants in this study.

### TAKEAWAYS FROM WAVE 4

By objective and subjective standards, we find that they're **making age-appropriate progress toward adulthood**: They're establishing careers, forming households and increasing financial stability, and **most are managing their finances well**.

Millennials have **life goals similar to those of previous generations**, including buying a home, saving for the future and being debt-free. For some, **finances are pushing those goals further into the future**. For others, inherent **sociodemographic factors slow and weigh down progress**.

We see that their **earlier financial behaviors have remained relatively stable**, underscoring the importance of instilling financial capability while children are young. However, we also see that **financial capability alone doesn't**



**translate into success with adult financial responsibilities** which, in turn, affect well-being.

We show that parents continue to shape and influence their children's financial lives beyond college. **Parents play a financial support role** for many young adults and **still rank among top sources for financial information**, consistent with our earlier research.

Finally, we note that many participants are carrying student loan debt and that **participants carrying student loan debt reported lower levels of well-being** in every domain compared to those who had graduated without student loans, or had paid off their education debt.

This response to an open-ended question in our survey echoes others indicating how student loans interfere with financial stability, well-being and quality of life:

*“Even though my college experience was so incredible, with the debt I am in I would recommend going to a junior college first or only going to a school you can find a scholarship for.*

*This debt hinders me from being independent, from my opportunity to save for my future, and makes it difficult for me to pay other bills on time as well. Not to mention I'm extremely stressed.*

*My friends that didn't take out loans are currently buying a house, getting married, and have had the opportunity to travel. I'm nowhere close to that opportunity.”*

## **NEXT STEPS FOR APLUS**

From age 17 to 30, young adults lay the groundwork for their future. It's then that they recognize they create their own reality, embark on a search for truth and cultivate a capacity to act in personally satisfying ways (Parks, 2000). In this fourth wave of research,

we've created a small but significant window into our participants' lives and experiences in the end years of that process.

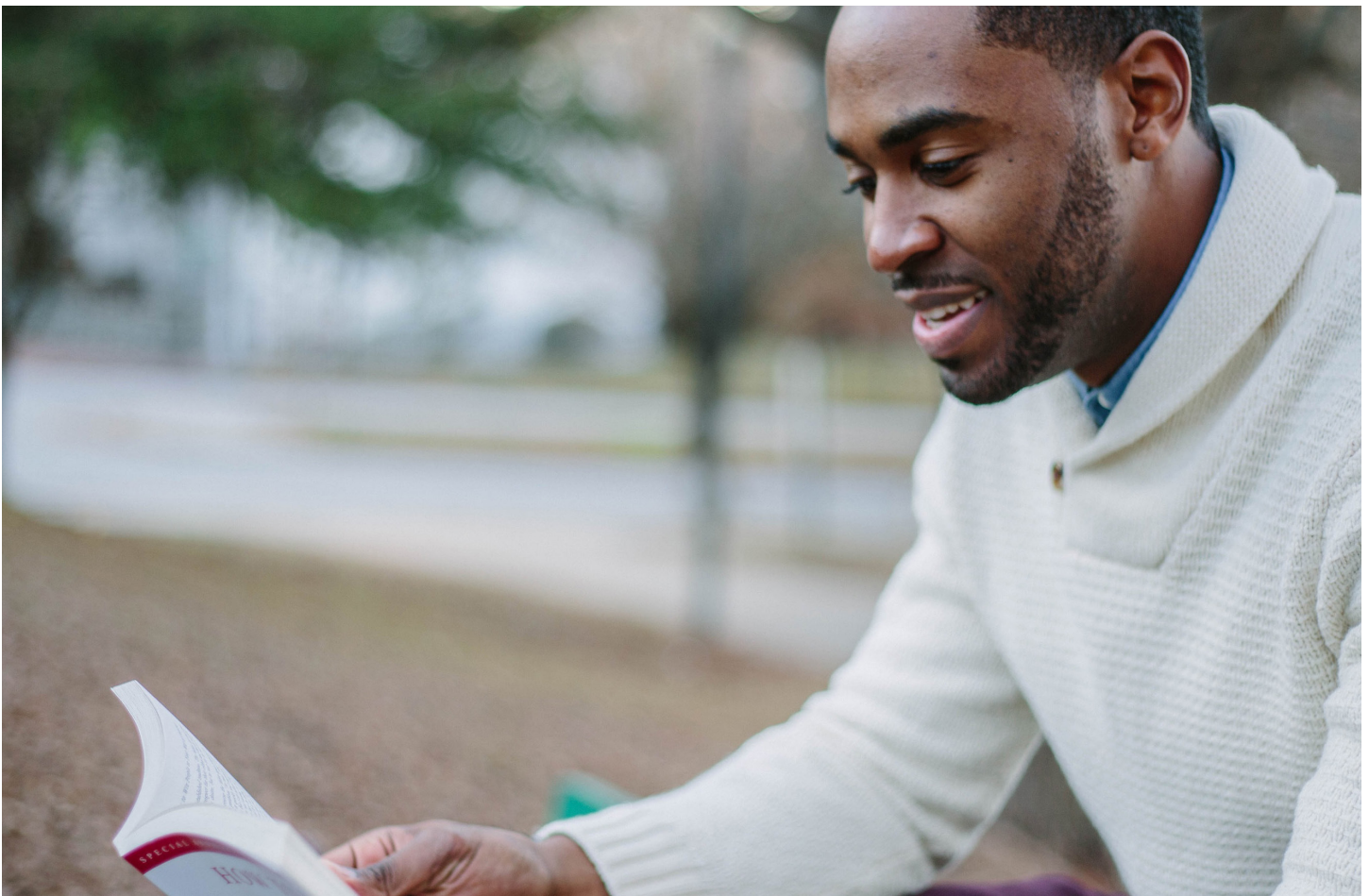
As these young adults continue to age, they'll transition to positions of leadership and responsibility. They'll be tasked with finding solutions to complex personal and community problems. As noted earlier, Millennials are the most highly educated generation in U.S. history. Given what we've seen from them thus far, perhaps they'll also become known as the most adaptive and resilient. But that's a question for a future wave of the study!

For now, we will look more deeply into our current data in the coming months to uncover risk and protective factors that promote or undermine young adult thriving, focusing on the intersection of three domains:

- Finances — What are the key indicators of financial resiliency and who has it?

- Personal relationships — Do communication and timing of communication about finances affect couples' relationship satisfaction?
- Well-being — What role do values play in achieving life goals?

As we discover how APLUS helps answer these questions, we'll share our findings through outreach and programming, continuing in our goal to make a positive impact for young adults nationwide.



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**FOR NEARLY A DECADE**, the APLUS project has been the flagship research project of Take Charge America Institute (TCAI), whose mission is to create research-based educational outreach programs that improve financial literacy and help consumers make informed financial choices in today's complex markets. Drawing on findings from the longitudinal APLUS study, TCAI has been able to focus its efforts on educating young people about how to manage their finances and make good choices as they move into adult life. Further, insights from APLUS have guided and will continue to guide the development of TCAI's financial education workshops as well as its curriculum and delivery methods.

As young adults, the participants in APLUS provide us with a greater understanding of the impact of finances on well-being, including relationships with parents, romantic partners and children born and raised in these new family systems. As always, all of us at TCAI thank our funders. We are very appreciative for the ongoing support of the National Endowment for Financial Education, the current support of Great Lakes and past support from the Citi Foundation. Together, we are searching for ways to ensure that youth and adults alike acquire the knowledge and skills to thrive.



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Dedicated to making college education a reality since 1967. Knowing that education has the power to change lives for the better, Great Lakes Higher Education Corporation & Affiliates was established as a nonprofit group focused on a single objective: helping students nationwide prepare for and succeed in postsecondary education and student loan repayment. As a leading student loan guarantor and servicer, Great Lakes has been selected by the US Department of Education to provide assistance and repayment planning to more than 8 million borrowers—as well as assistance to colleges and lenders nationwide. Its earnings support one of the largest and most respected educational philanthropy programs in the country. Since 2006, Great Lakes has committed nearly \$179 million in grant funding to promote higher education access and completion for students of color, low-income students and first-generation students. For additional information, visit [home.mygreatlakes.org](http://home.mygreatlakes.org).



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® (HSFPP), the CashCourse® college program, and the consumer-oriented [smartaboutmoney.org](http://smartaboutmoney.org). 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®. To learn more about NEFE, visit [www.nefe.org](http://www.nefe.org) or call 303-741-6333.



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