Understanding Differences in Financial Well-being Based on Educational Attainment and Gender

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Introduction

Young people today navigate an increasingly complex financial marketplace, especially relative to those reaching young adulthood in previous generations. Given this increased complexity, young people with a college degree might be better able to confidently make financial decisions. However, a large segment of the U.S. population never attends college. One-in-three high school graduates in 2017, or roughly 970,000 young adults, did not attend a post-secondary school, such as a college or university (Bureau of Labor Statistics, 2018). Without a college degree, today’s young people may find financial decision-making more challenging than it was in their parents’ or grandparents’ era.

Meanwhile policymakers, citing the rapid rise in student loan debt, have proposed strategies to improve the financial capability of college students.1 While these strategies may have benefits for this population, this focus on college students could inadvertently neglect the financial capability development of young people who never attend college and who therefore may not have financial education opportunities comparable to college-based programs.

This study examines the financial well-being of young adults who have a high school diploma but never attended post-secondary education by the age of 34. To make careful comparisons, we use survey data to define a sample of young people the same age who completed a four-year degree. This research further contrasts the financial well-being of women and men among college graduates and high school only graduates. By better understanding differences in well-being between and among these groups, educators who develop and deliver financial literacy and financial capability programs for young adults may be better equipped to serve learners at each level of educational attainment.

For this study, we focus on financial well-being levels, rather than income, wealth, or knowledge levels. Financial well-being is a more holistic and comprehensive measure. We use the U.S. Consumer Financial Protection Bureau’s (CFPB) five-item Financial Well-being Scale (FWBS).2 This scale is based on research indicating that financial well-being consists of:

- having control over day-to-day and month-to-month finances;
- having the capacity to absorb a financial shock;
- being on track to meet financial goals; and
- having the financial freedom to make the choices that allow a person to enjoy life.

According to this definition, financial well-being is subjective and is based on the extent to which someone’s financial situation and financial capability provide a sense of financial security and freedom of choice.3

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2 The full set of questions from the CFPB FWBS contains 10 items, but the CFPB recognizes that the five-item version of the scale provides similar results.
Understanding how financial well-being varies across populations can help financial educators design strategies to help people feel more financially secure. If educators focus on improving perceived financial well-being, the take up and impact of programs may increase.

The FINRA Investor Education Foundation’s 2018 National Financial Capability Study (NFCS) included the CFPB’s five-item FWBS. The scale ranges from 0 to 100. This same set of questions has been used in several nationally representative surveys and provides researchers a new way to measure how well people are doing financially. The five FWBS questions embedded in the NFCS survey provide an opportunity to explore how financial well-being differs among young people based on their educational attainment.

**Methods**

The goal of our analysis is to understand the financial well-being of young adults who hold four-year college degrees and young adults with only high school diplomas who have never pursued a postsecondary degree. This means young adults who attend some college are not included. We exclude any individuals still in school, though if individuals start college after completing the survey, they would be included in the study as having a high school diploma only.

We are interested in young adults ages 25–34 for several reasons. First, we want to compare relatively young adults in roughly the same early career phases of life. Second, we do not include those under 25 since we want to give individuals in our sample enough time to complete college. Beginning with age 25 allows a larger group of those who completed college.

Third, people with only a high school diploma will launch their career trajectories in their early 20s (or sooner), while the college-completers have less time to gain experience in their first jobs. This biases us towards finding better outcomes for high school only respondents; allowing up to age 34 balances this working-years gap somewhat, but we still expect people working right out of high school will have more years of work experience.

In our analysis, we further split our sample by gender. Men and women typically have different levels of income, as well as measured financial literacy. Women may also experience fewer income gains from obtaining a college degree when compared to men.5


![Figure 1: Financial Well-being by Gender and Education over the Life Course](source: NFCS (2018)).

**Financial Well-being**

While our focus is on young adults, we begin by plotting financial well-being over the life-course by education and gender. There are four important trends that come from Figure 1. First, financial well-being is increasing over the life course for all education groups and both genders. Second, women with only a high school diploma have the lowest levels of financial well-being at first, but they catch up to men with high school diplomas.

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near retirement ages (62–69) and older. Third, men with only high school diplomas have comparable financial well-being to women with college degrees over prime working years, though women with college degrees have a slightly higher average financial well-being at all ages except 45–54. Fourth, across all age groups beyond 25–34, men with college degrees have higher financial well-being than all other groups.

We are cautious when generalizing about these different datasets collected in isolation across years, but the general pattern of lower financial well-being for women, especially among those with only a high school education, merits deeper study.

**Additional Measures of Financial Capability**

Since the financial well-being measure exists only in surveys from 2016 and beyond, it is important to track other measures over time that also indicate financial status. We begin by tracking the rate of people reporting they have had a severe financial difficulty. Figure 3 shows the proportion of people reporting severe difficulties in covering monthly expenses and paying all their bills in the 2009, 2012, 2015, and 2018 NFCS data by education level and gender.

Throughout all periods, men and women with only a high school diploma report higher rates of having severe financial difficulties, though the gap narrowed by 2015 and remained relatively flat from 2015 to 2018. The rates reported by men and women with only a high school diploma are not statistically different from each other. Likewise, there are no statistically different rates of reporting financial difficulties between men and women with a college degree, with the exception of 2012, when women with a college degree were actually less likely to

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6 Each dataset provides weights to take averages to the national level. We employ these weights in constructing our data points.
report having severe difficulties than men with a college degree. This could be in part due the Great Recession having larger, lagging effects on men than women. The rate of reporting a severe financial difficulty has generally declined since 2012 for all groups except women with a college degree, which is consistent with people recovering from the recession in the late 2000s.

Figure 4 displays financial satisfaction, as measured in the NFCS on a subjective 10-point scale, where a 10 represents “extremely satisfied” and a 1 represents “extremely dissatisfied.” Across all years, degree-holding men report the highest levels of financial satisfaction, and their level of satisfaction increased from 2009 to 2012 and then remained flat from 2012 to 2018. Men with only a high school diploma have a roughly 1–2 point lower level of satisfaction than men with a college degree depending on the year, though the average for this group has steadily increased from 2009 to 2018. Appendix Figures A.1–A.5 show that the trends in marriage rates, income levels, and number of dependents remain flat within groups.

The trends for women with a high school diploma and a college degree are parallel. In general, women show lower financial satisfaction than men. Both women with only a high school diploma and those with a college degree experienced an increase in financial satisfaction from 2009 to 2015 and a subsequent decrease from 2015 to 2018. Across all years, women with only a high school diploma had 0.5–1 point lower levels of financial satisfaction than women with a college degree.

While women with a college degree had higher levels of financial satisfaction than men without a college degree in 2009, the two levels were statistically indistinguishable in 2012 and 2015, and men with only a high school diploma had higher levels of financial satisfaction than women with a college degree in 2018. This could explain the only modest difference in financial well-being between the two groups in 2018. In 2018, women with a college degree appear to experience fewer severe financial difficulties than men with only a high school education, but they report lower levels of financial satisfaction.

Overall, men without a college degree in these surveys report higher levels of well-being than women with a college degree, but men without a college degree report higher levels of severe financial difficulties than women with a college degree in all periods under examination.

The differences between men and women across financial well-being and financial hardship highlight the importance of showing both subjective measures, such as financial well-being, alongside objective measures, such as specific questions about financial difficulties. While subjective measures can reflect differences in expectations, confidence, or perceptions, objective measures can include material hardships with implications for policy.

### Approximating Financial Well-being in Earlier Surveys

In order to determine how financial well-being has evolved over a longer time horizon, we create a measure that mimics the financial well-being score in the 2018 NFCS but uses measures that are available in the NFCS across survey periods (2012, 2015, 2018). We label this measure a “pseudo financial well-being score”. We choose questions that capture the primary domains of the FWBS, as shown in Table 1. We use the

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7 More information on the development of this measure, as well as the specific code is available at [http://www.montana.edu/urban/NFCS_PseudoFWB_forposting.do](http://www.montana.edu/urban/NFCS_PseudoFWB_forposting.do). The 2009 NFCS omits item #8 regarding “too much debt”; we do not replicate the measure in 2009.
same methodology used for the 2018 version of the FWBS.9

Figure 5 shows the average financial well-being score and our proxy for financial well-being using the items in Table 1. We compare the financial well-being and pseudo financial well-being scores in the 2018 NFCS, the only year of the dataset where we can estimate both measures. The rank ordering of the pseudo financial well-being scale matches that of the true financial well-being measure, though the pseudo financial well-being measure is slightly higher than the financial well-being measure. The pseudo scale also shows a slightly higher measured financial well-being of men with college degrees. The overall correlation between the financial well-being and pseudo financial well-being scores is a relatively strong 0.63. The correlations within group are depicted in Appendix Table A.2.

Figure 6 plots the pseudo financial well-being measure from 2012 to 2018, allowing a reliable measure over time. There are three notable trends. First, the financial well-being of men and women with a college degree has remained consistent over time. Second, the financial well-being of men with only a high school education has improved from 2012 to 2018, catching up to women with college degrees in 2018, which is consistent with Figure 3. Third, women with only high school diplomas saw improvement in financial well-being from 2012 to 2015, though this decreased again in 2018 to near-2012 levels. This group has significantly lower financial well-being scores than all other groups in each year.

Conclusions

This study uses different measures to better understand how well young adults with only a high school diploma and those with a four-year college degree are faring financially. The patterns show that gender and education

<table>
<thead>
<tr>
<th>Item</th>
<th>Financial Well-being Question</th>
<th>Proxy Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am just getting by financially</td>
<td>How confident are you that you could come up with $2,000 if an unexpected need arose within the next month?</td>
</tr>
<tr>
<td>2</td>
<td>I am concerned that the money I have or will save won’t last</td>
<td>Over the past year, would you say your household’s spending was less than, more than, or equal to your household’s income?</td>
</tr>
<tr>
<td>3</td>
<td>Because of my money situation, I feel like I will never have the things I want in life</td>
<td>Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?</td>
</tr>
<tr>
<td>4</td>
<td>My finances control my life</td>
<td>I have too much debt right now</td>
</tr>
<tr>
<td>5</td>
<td>I have money left over at the end of the month</td>
<td>In a typical month, how difficult is it for you to cover your expenses and pay all your bills?</td>
</tr>
</tbody>
</table>

Table 1: Pseudo Financial Well-being Scale Description

Notes: Financial Well-being Question corresponds to the CFPB five-item scale. The proxy question corresponds to the NFCS (2012, 2015, 2018) question we use to correspond to the FWBS question.8

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8 Note that many of these measures were re-scaled prior to using the CFPB scale construction method.
levels may be related to people being more vulnerable to financial challenges. There are four important takeaways from this descriptive analysis for the financial education field.

First, women who end their education with a high school diploma have the lowest financial well-being scores of all groups, suggesting that they struggle financially more than any other group. This is consistent across other measures, such as self-reported financial satisfaction and our constructed financial well-being measure. This population may be an important focus for future financial education programming.

Second, in terms of financial well-being, women with a college degree are not keeping up with men who hold a college degree. In fact, the financial well-being of women with a college degree more closely reflects men with only a high school education. Moreover, the relative financial well-being of women with a college degree has declined in the last few years. We see similar patterns in self-reported financial satisfaction. This is a group that appears to be struggling despite the advantages of higher educational attainment.

Third, men with a college degree outperform all other groups: they have the highest financial well-being scores, are least likely to report experiencing financial difficulties, and report the highest levels of financial satisfaction. Their financial well-being is highest across all age groups and time periods, based on the responses they provide in nationally representative surveys.

Fourth, though the three notable differences above are important to document, they each reflect subjective measures about one’s financial situation. There are no statistical differences across women and men with high school diplomas in experiencing severe financial difficulties. In the only period when women and men with college degrees differ in experiencing financial difficulties, women report fewer severe difficulties. This suggests that subjective measures may result in some populations perceiving their financial situations differently than if they were to be asked objective questions.

A number of factors may contribute to the patterns we observe, as well as the changes over time. Financial well-being is a subjective measure. Subjective perceptions may change as the economy improves. There may also be systematic differences in how men and women report subjective financial well-being and satisfaction. Prior studies suggest that women tend to be less confident and more cautious, and to underestimate their objective financial capability, when compared to men. Attending college may result in systematic bias to responses, where more education could lead to more optimistic perspectives. The observed patterns may also be related to relative labor market options, where people’s perceptions of their financial situation are relative to their job opportunities.

The fact that financial well-being is consistently lower and financial difficulties are more frequent for populations who end their education with a high school diploma suggests that availability of financial education programs in high school is important. State mandates requiring all students to complete financial education programs prior to earning a high school diploma could help individuals who never go on to additional schooling to have an opportunity to learn the basic financial literacy and skills needed to navigate today’s complex financial world.

A complementary approach to expanded financial education in high school is the use of employer-based financial education targeted to women not enrolled in school but employed. A related strategy could be tailored online programs designed to boost women’s confidence in their financial skills and knowledge. Working with a financial coach may be another way women can enhance their financial well-being to align with their financial goals.

By focusing on subjective well-being and satisfaction, educators may be better able to help people feel more secure managing cash flow, saving for an emergency, and comparing the costs of different types of credit and debt. By homing in on topics and issues that make people feel financially healthier, the take up and impact of programs could be greater.

Finally, measuring financial well-being may be a useful way for financial capability programs to evaluate their success. Beyond the basics of financial understanding, people may show changes in subjective measures related to their financial health as they increase their financial literacy.

Acknowledgment:

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Appendix: Methodology

Table A.1 reports the sample sizes across groups for each dataset used in this analysis. The sample is only 25–34 year olds, and we remove those with “some college” (more than high school but less than four-year college degree) from the sample entirely.

Table A.1: Sample Sizes Across Datasets

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Male, College Degree</td>
<td>774</td>
<td>27%</td>
<td>3,168</td>
<td>29%</td>
<td>313</td>
<td>27%</td>
<td>182</td>
<td>35%</td>
</tr>
<tr>
<td>Female, College Degree</td>
<td>1,054</td>
<td>37%</td>
<td>3,813</td>
<td>35%</td>
<td>545</td>
<td>48%</td>
<td>111</td>
<td>21%</td>
</tr>
<tr>
<td>Male, High School Diploma Only</td>
<td>444</td>
<td>16%</td>
<td>1,732</td>
<td>16%</td>
<td>95</td>
<td>8%</td>
<td>98</td>
<td>19%</td>
</tr>
<tr>
<td>Female, High School Diploma Only</td>
<td>561</td>
<td>20%</td>
<td>2,053</td>
<td>19%</td>
<td>190</td>
<td>17%</td>
<td>133</td>
<td>25%</td>
</tr>
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</table>

Table A.2: Correlations between Pseudo Financial Well-being and Financial Well-being by Group in 2018 NFCS

<table>
<thead>
<tr>
<th></th>
<th>Correlation</th>
</tr>
</thead>
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<tr>
<td>Male, College Degree</td>
<td>0.62</td>
</tr>
<tr>
<td>Female, College Degree</td>
<td>0.68</td>
</tr>
<tr>
<td>Male, High School Diploma Only</td>
<td>0.55</td>
</tr>
<tr>
<td>Female, High School Diploma Only</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Figure A.1: Fraction Married by Gender and Education

Figure A.2: Fraction with Household Income over $50,000 by Gender and Education
Figure A.3: Fraction with Household Income under $25,000 by Gender and Education

Figure A.4: Fraction with Household Income over $100,000 by Gender and Education

Figure A.5: Number of Dependent Children by Gender and Education