

## Financial Capability of Student Loan Holders: Comparing College Graduates, Dropouts, and Enrollees

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### Objective

The purpose of this study is to compare the financial capability among three types of student loan holders, who completed, did not complete, and are enrolled in a higher education program. Student loan holding is a current important policy issue in the US. Research shows that between 2000 and 2014, student loan debt nearly quadrupled to surpass \$1.1 trillion, the number of student loan borrowers more than doubled to reach 42 million, and default rates among recent student loan borrowers rose to the highest levels in 20 years (Looney & Yannelis, 2015). According to the 2015 National Financial Capability Study, many student loan holders lack knowledge about their loans; 35% of the loan holders know their loan is income-based and 53% did not estimate the monthly repayment cost of their student loans when they were offered loans. As suggested by previous research, effective financial education programs should focus on specific needs of students (Alsemgeest, 2015).

### Significance

Much previous research has studied consumer behavior of student loan holdings using college student or young adult samples. Unlike previous research, this study focuses on a national sample of all age groups in order to examine financial capability characteristics of student loan holders. The purpose of this study is to identify differences of financial capability among three types of student loan holders: those who have completed, did not complete, and those still enrolled in a higher education program. Financial capability can be broadly considered as “a multi-dimensional concept that encompasses a combination of knowledge, resources, access, and habits” (Lin, et al., 2016, p. 2). In this study, a narrower definition is used in which financial capability is defined as applying basic financial knowledge and engaging in desirable financial behavior to achieve financial wellbeing (Xiao, Chen, & Chen, 2014). Based on these concepts and previous literature, we propose following hypotheses:

- H1: College graduates and enrollees have higher levels of financial knowledge than college dropouts.
- H2: College graduates and dropouts perform more desirable financial behaviors than college enrollees.
- H3: College graduates have a higher level of financial capability than college enrollees and dropouts.

### Method

Data used in this study was from the 2015 U.S. National Financial Capability Study (NFCS), commissioned by the FINRA Investor Education. The 2015 survey included several new questions about

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student loans. In this study, only respondents who had student loans for their own education programs were selected, which resulted in a sample size of 5,403, among which 3,064 completed, 1,394 did not complete, and 945 were enrolled in a higher education program. Following previous research (Xiao et al., 2015), financial capability variables include four indicators and one index.

## Results

### Student Loan Knowledge and Behavior by Holder Type

Table 1 presents descriptive statistics of student loan knowledge and behavior by holder type. Two questions in the survey are related to knowledge of student loan types. When respondents are asked what type of student loan they have, compared to college graduates and enrollees, college dropouts are more likely to report using only a private loan (11.6% vs. 9.9% and 7.1%) and “don’t know” (9.1% vs. 3.7% and 3.6%). College enrollees are the least knowledgeable about whether the loan payment is based on income compared to college graduates and dropouts (who answered “don’t know,” 31.9% vs. 10.2% and 14.8%). Several questions in the survey asked about relevant student loan behaviors. College graduates are most likely, enrollees are more likely, and dropouts are least likely to calculate monthly payment before receiving a student loan (43.7%, 37.7%, and 27.0%). College dropouts are more likely than college graduates to have a late payment more than once (28.6% vs. 17.3%). Over half of all three types are concerned that they might not be able to pay off their student loans (51.0% of graduates, 55.5% of dropouts, and 55.0% of enrollees). When asked “If you could go through the process of taking out loans to pay for your education all over again, would you take the same actions or make a change?” college dropouts are most likely, graduates are less likely, and enrollees are least likely to say “make a change” (68.0%, 56.0%, and 45.8%).

### Results on Financial Capability Variables

Table 2 presents the results of financial capability variables by student loan holder type. For the whole sample, mean scores of the four financial capability indicators are 3 for objective financial literacy on a scale of 0-6, 5.15 for subjective financial literacy on a scale of 1-7, 5.58 for perceived financial capability on a scale of 1-7, and 2.30 for desirable financial behavior on a scale of 0-5. The mean score of the financial capability index is -.58 with a range of -10.60 - 5.55.

All four indicators and the index of financial capability show the same pattern for group differences. College graduates have higher scores on all four indicators and the index of financial capability than those of college dropouts and enrollees. For example, for objective financial knowledge, the mean score of college graduates is 3.18 out of a possible perfect score of 6, while those of college dropouts and enrollees are 2.71 and 2.86, respectively. The scores of college graduates are significantly higher than those of the other two groups, while the scores of college dropouts and enrollees are not statistically different from each other. The same patterns are shown in subjective financial literacy, desirable financial behavior, perceived financial capability, and the index of financial capability.

## Discussion

The results of this study provided mixed evidence for H1 (both college graduates and enrollees have higher levels of financial knowledge). The findings of objective financial literacy and subjective financial literacy reveal that college graduates have a significant higher level of financial knowledge than the other two groups, which partially supports H1. Unlike H1 expectation, there are no differences in terms of financial knowledge among college enrollees and dropouts, suggesting both perceived and actual financial knowledge are not only related to cognitive ability but also life experience. The findings indicate some specific knowledge points are more relevant to cognitive knowledge (e.g. knowledge about inflation) and others are more relevant to life experience (e.g. knowledge about bonds).

H2 (both college graduates and dropouts perform more desirable financial behaviors) is also only partially supported. College graduates reported more desirable financial behaviors than the other two groups, which is consistent with H2, while the number of desirable financial behaviors reported by dropouts is not different statistically from that of enrollees (Table 2). Findings of specific financial behaviors show that college graduates are more likely to perform each of five financial behaviors than the other two groups while for three specific behaviors, there are no differences between college enrollees and dropouts, suggesting desirable financial behavior may be relevant to not only cognitive ability and life

experience, but also other personality traits such as consciousness (Letkiewicz & Fox, 2014).

Results of this study support H3 (college graduates have a higher level of financial capability than college dropouts and enrollees). As measured by both perceived financial capability and financial capability index, college graduates have a higher level of financial capability than the other two groups and no differences are found between enrollees and dropouts (Table 2). Findings of specific knowledge points and behaviors (results will be shown at the presentation) suggest that college enrollees may be stronger in cognitive ability but have less life experience compared to college dropouts. Both groups need assistance in order to enhance their financial capability, yet their financial education needs may be different.

### Conclusion/Relevance

The findings of this study have implications for consumer policy and education. The findings show that the financial capability of many student loan holders is low, and some holders are more vulnerable than others. Policy makers should invest in financial education of all forms to help these vulnerable consumers. Although the effectiveness of financial education has been debating, new evidence continues to support the benefits of financial education for consumer wellbeing (Brown, Collins, Schmeiser, & Urban, 2014; Brown, Grigsby, van der Klaauw, Wen, & Zafar, 2016; Lusardi & Mitchell, 2014; Walstad et al., 2017; Xiao & Porto, 2017; Xiao & O'Neill, 2016). Financial educators should be aware of the different needs of the three types of student loan holders. In general, college graduates have a higher level of financial capability than college dropouts and enrollees, they are also more likely to perform desirable financial behaviors observed in this study. In terms of financial knowledge, they are also more knowledgeable in all specific knowledge points. Findings of this study suggest that when teaching three types of student loan holders, different contents need to be stressed for different groups. Both college dropouts and enrollees are less likely to perform desirable financial behaviors that could have been encouraged by education. Action-oriented education programs that are based on the theory of transtheoretical models of change (TTM) could be developed and delivered (Prochaska, DiClemente, & Norcross, 1992; Xiao et al. 2004). For educational content design, findings of this study could be referenced to address deficiencies of financial knowledge of certain loan holder types such as college dropouts and enrollees.

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Table 1: Student Loan Knowledge and Behavior by Holder Type

		Graduate	Dropout	Enrollee	Total
Do you currently have	Only federal student loans	61.0%	55.6%	65.4%	60.4%
	Only private student loans	9.9%	11.6%	7.1%	9.9%
	Both federal and private student loans	24.9%	22.7%	23.5%	24.1%
	Don't know	3.7%	9.1%	3.6%	5.1%
	Prefer not to say	.4%	1.0%	.4%	.6%
For any of these loans, is the amount you owe each month determined by your income (e.g., Income-Based Repayment Plan, Pay As You Earn Plan, or Income-Contingent Repayment Plan)?	Yes	45.7%	36.0%	25.5%	39.7%
	No	43.8%	48.5%	42.0%	44.7%
	Don't know	10.2%	14.8%	31.9%	15.2%
	Prefer not to say	.3%	.7%	.6%	.4%
	Total	100.0%	100.0%	100.0%	100.0%
Before you got your most recent student loan, did you try to figure out how much your monthly payments would be?	Yes	43.7%	27.0%	37.7%	38.3%
	No	52.7%	69.1%	56.4%	57.6%
	Don't know	3.3%	3.7%	5.1%	3.7%
	Prefer not to say	.3%	.2%	.8%	.4%
How many times have you been late with a student loan payment in the past 12 months?	Never, payments are not due on my loans at this time	24.5%	25.4%	70.4%	32.8%
	Never, I have been repaying on time each month	46.3%	25.6%	15.7%	35.6%
	Once	8.2%	10.4%	3.9%	8.0%
	More than once	17.3%	28.6%	5.0%	18.0%
	Don't know	2.7%	7.6%	4.3%	4.3%
	Prefer not to say	.9%	2.4%	.7%	1.3%
Are you concerned that you might not be able to pay off your student loans?	Yes	51.0%	55.5%	55.0%	52.9%
	No	45.2%	40.4%	36.9%	42.5%
	Don't know	3.5%	3.7%	7.5%	4.2%
	Prefer not to say	.2%	.5%	.5%	.4%
If you could go through the process of taking out loans to pay for your education all over again, would you take the same actions or make a change?	Take the same actions	32.6%	17.1%	37.0%	29.4%
	Make a change	56.0%	68.0%	45.8%	57.3%
	Don't know	11.3%	14.5%	16.6%	13.1%
	Prefer not to say	.1%	.4%	.5%	.3%
	Total	100.0%	100.0%	100.0%	100.0%

Table 2: Result of MANOVA of Financial Capability Indicators

Financial Capability	Holder Type	Mean	SD	Diff
Objective financial knowledge (0-6)	Graduates	3.18	1.53	a
	Dropouts	2.71	1.52	b
	Enrollees	2.86	1.55	b
	Total	3.00	1.55	
Subjective financial knowledge (1-7)	Graduates	5.31	1.19	a
	Dropouts	4.97	1.33	b
	Enrollees	4.85	1.22	b
	Total	5.15	1.25	
Perceived financial capability (1-7)	Graduates	5.77	1.36	a
	Dropouts	5.31	1.56	b
	Enrollees	5.34	1.46	b
	Total	5.58	1.44	
Desirable financial behavior (0-5)	Graduates	2.59	1.46	a
	Dropouts	1.89	1.40	b
	Enrollees	1.92	1.36	b
	Total	2.30	1.47	
Financial capability index (-10.60-5.55)	Graduates	-0.01	2.50	a
	Dropouts	-1.36	2.72	b
	Enrollees	-1.33	2.54	b
	Total	-0.58	2.65	

Note. In the column “Diff,” group a is statistically different from group b at significance level of 1% based on post hoc tests. For example, for objective financial knowledge, the mean score of college graduates is significantly higher than the other two groups, while there is no difference between scores of college dropouts and enrollees.