11-6-2017

Student Pharmacists' Personal Finance Perceptions, Projected Indebtedness upon Graduation, and Career Decision-Making

Nicholas E. Hagemeier
East Tennessee State University, hagemeier@etsu.edu

Chad K. Gentry
Lipscomb University College fo Pharmacy

Debbie C. Byrd
East Tennessee State University, byrddc1@etsu.edu

Leonard B. Cross
East Tennessee State University, crossl@etsu.edu

Daniel Rose
East Tennessee State University

See next page for additional authors

Citation Information

Hagemeier, Nicholas E.; Gentry, Chad K.; Byrd, Debbie C.; Cross, Leonard B.; Rose, Daniel; Ansari, Nasar; Subedi, Pooja; and Branham, Tandy. 2017. Student Pharmacists' Personal Finance Perceptions, Projected Indebtedness upon Graduation, and Career Decision-Making. *American Journal of Pharmaceutical Education*. https://doi.org/10.5688/ajpe6722 ISSN: 0002-9459

Student Pharmacists' Personal Finance Perceptions, Projected Indebtedness upon Graduation, and Career Decision-Making

Creator(s)
Nicholas E. Hagemeier, Chad K. Gentry, Debbie C. Byrd, Leonard B. Cross, Daniel Rose, Nasar Ansari, Pooja Subedi, and Tandy Branham

RESEARCH

Student Pharmacists' Personal Finance Perceptions, Projected Indebtedness Upon Graduation, and Career Decision-making

Nicholas E. Hagemeier, PharmD, PhD
Associate Professor, Department of Pharmacy Practice
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

Chad K. Gentry, PharmD, BCACP
Associate Professor, Department of Pharmacy Practice
Lipscomb University College of Pharmacy, Nashville, Tennessee

Debbie C. Byrd, PharmD, MBA, BCPS*
Dean and Professor
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

L. Brian Cross, PharmD, BCACP
Associate Professor, Department of Pharmacy Practice
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

Daniel Rose, PharmD**
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

Nasar Ansari, PharmD**
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

Pooja Subedi, MPH
East Tennessee State University College of Public Health, Johnson City, Tennessee

Tandy Branham, PharmD**
East Tennessee State University Gatton College of Pharmacy, Johnson City, Tennessee

Corresponding Author:
Nicholas E. Hagemeier, PharmD, PhD
Associate Professor, Department of Pharmacy Practice
East Tennessee State University Gatton College of Pharmacy

Box 70657
Johnson City, TN 37614
Tel: 423-439-6239. Fax: 423-439-6784.
E-mail: hagemeier@etsu.edu

*Dr. Byrd was Associate Dean for Professional Affairs at the University of Tennessee during data collection
**Students were enrolled in a Doctor of Pharmacy program while conducting this research

ABSTRACT

Objective. To evaluate the extent to which students' personal finance perceptions, projected student loan indebtedness, and demographic characteristics predict post-PharmD career intentions.

Methods. Students at three pharmacy colleges completed a 31-item survey instrument that assessed personal finance perceptions, self-efficacy beliefs, anticipated student loan debt upon graduation, postgraduate intentions, anticipated practice setting upon graduation, and demographic characteristics. Logistic regression models were used to examine the extent to which personal finance perceptions, student loan indebtedness, and demographic characteristics predicted postgraduate intentions and anticipated practice setting.

Results. A total of 763 usable responses were obtained (response rate=90.3%). Students reported an anticipated personal student loan debt mean at graduation of $162,747±87,093 and an estimated 7.4±5.8 years to pay off non-mortgage debt post-graduation. Fifty-three percent of students reported planning to practice in a community pharmacy setting post-graduation, and 54% indicated intentions to enter practice directly. Student loan indebtedness was not a significant predictor of planning to pursue postgraduate training. There was a significant association between debt influence and pressure perceptions and pursuance of postgraduate training (aOR=0.78;p=0.009). The odds of indicating hospital (vs. chain

community) pharmacy as the anticipated setting decreased 36% with every 1-point increase in debt influence and pressure perceptions (aOR=0.64;p<0.001)

Conclusion. Perceived debt pressure and influence predicted intention to enter practice directly (vs. pursuing postgraduate training) and selection of chain community pharmacy (vs. hospital pharmacy). Student loan indebtedness was not a significant predictor of postgraduate training intentions. Interventions that equip students to manage pressure associated with student loan debt should be explored.

Keywords: Pharmacy student, debt, postgraduate training, career

INTRODUCTION

Indebtedness associated with earning the Doctor of Pharmacy degree has received increased attention in the pharmacy literature in the past decade. From 2004 to 2014, the National Pharmacist Workforce Study noted a 154% increase ($42,600 to $108,407) in average student loan indebtedness among pharmacists who had graduated within the previous five years and work at least 30 hours per week.[1] During the same period, the Institute for College Access and Success (TICAS) Project on Student Debt found that for students graduating from a 4-year college, the average student loan debt increased by 56% from $18,550 in 2004 to $28,950 in 2014.[2] During the same timeframe, the United States Bureau of Labor Statistics reported a 48% increase in the mean annual wage for all pharmacists in the United States ($80,300 to $118,470).[3-5] Succinctly, pharmacists begin their careers with higher than average student loan debt, and relatively high wages.

Human capital theory posits an educational investment is similar to a capital investment. An educational investment is composed of both monetary investment (tuition) and opportunity cost (time spent in school). As students weigh the cost of educational investment against the benefits of a given job, they will, in theory, make decisions that maximize long-term gain.[6] Considering pharmacy school and postgraduate training specifically, students must weigh the benefits and costs of pursuing postgraduate training versus entering practice directly. Previous

research has reported that net career earnings associated with a PharmD are favorable, but the return on investment of postgraduate training post-PharmD is negative or low at best.[7-9] Yusuf and colleagues posited that pharmacists would be more likely to choose a job that would maximize earnings, in turn reaping larger returns on their educational investment.[10] They found that pharmacists with low indebtedness were more likely to enter independent practice as compared to chain pharmacy practice, but did not find other significant associations between student loan debt and career decision-making.[10] Park and colleagues examined the attitudes of pharmacy students toward debt and found that students of non-white ethnicity and female gender were more likely to have negative attitudes toward debt compared with those of white ethnicity or male gender.[11] Additionally, students' knowledge of amount of debt accrued also impacted their attitudes toward debt. In a 2003-2004 study at one college of pharmacy, McCollum and Hansen found that level of indebtedness (less than $40,000 vs. $40,000 or more) was not associated with the decision to pursue residency training.[12] More recent research conducted by Chisholm-Burns and colleagues noted that fear of debt among students at one college was associated with increased indebtedness and perceived stress.[13] They also noted that student attitudes toward debt did not differ across post-graduation plans.[13]

While there are limited data available regarding pharmacy students' personal finance competency, Chui suggested that many pharmacy students are ill-equipped to handle personal finance decisions.[14] Prior to participation in a personal finance class, students scored an average of 60.0% on a modified version of the 2006 Jump$tart Financial Literacy Survey. This improved to 89.9% on a post-class assessment.[14] For comparison, the 2008 Jump$tart Financial Literacy Survey found that college freshmen averaged 59%, while seniors averaged 65%.[15]

While manuscripts have been published examining the return on investment in pharmacy education and encouraging the academy to address rising indebtedness among pharmacy students and graduates, no recent studies have evaluated pharmacy students' perceptions of debt

prior to graduation and the impact of debt on career decision-making.[16-18] The objective of this study was to examine the extent to which personal finance perceptions, projected student loan indebtedness, and demographic characteristics predict post-PharmD career intentions.

METHODS

A 31-item survey instrument was developed to assess student pharmacists' personal finance perceptions, personal finance behaviors, self-efficacy beliefs, anticipated student loan debt upon graduation, postgraduate intentions, and anticipated practice setting upon graduation. Perception and self-efficacy items were responded to using a 5-point Likert response scale (1=strongly disagree; 5=strongly agree). Behaviors were evaluated with multiple choice and true/false items. To evaluate postgraduate training intentions, students were asked, "Which of the following postgraduate paths best describes your current intentions after pharmacy school?" Responses included direct entry in to practice, fellowship training, graduate school, residency training, and other. Anticipated primary practice setting was assessed using a multiple-choice item that asked students to choose between one of nine common settings (including other).

Students from three, 4-year colleges of pharmacy were recruited to participate in the study and represented one public institution (two student cohorts), one private institution (three cohorts), and one private college within a public institution (four cohorts). Students were recruited during the 2013-14, 2014-15 and 2015-16 academic years and were either 2nd or 3rd professional year students. Survey administration (paper-based vs. online survey software) was college dependent. Recruitment was championed by one faculty member at each college. All faculty champions taught or facilitated a personal finance course based on Dave Ramsey's *Foundations in Personal Finance* curriculum at their respective institutions. Whereas the delivery methods differed across the institutions (e.g., elective course, required standalone course, content embedded into required course), questionnaires were completed prior to students taking any personal finance course while enrolled in the professional program. Prior to administration, all sites received approval from their respective Institutional Review Boards.

Data analysis was conducted using SPSS Statistics version 22 and SAS version 9.4. Exploratory factor analysis was conducted to explore the underlying factor structure for 15 items developed to assess students' personal finance perceptions. An Eigenvalue cutoff of >1 was used to preliminarily identify the number of factors to retain. A principal axis factoring extraction method and promax rotation were employed. An item was allowed to represent a factor if it had a loading >0.4 on that factor and no loading on another factor within 0.2 of the one on which it loaded most. Factor analysis resulted in the 15 items loading on three factors; 1) personal finance self-efficacy beliefs; 2) debt influence and pressure; and 3) risk mitigation and retirement. Cronbach's alphas for the three constructs ranged from 0.75 to 0.88. Weighted construct scores were calculated for each student and used in subsequent analyses.

Age, number of dependents, anticipated student loan debt at graduation (in 10,000s), and personal finance perception constructs were treated as continuous variables. Marital status was dichotomized to students in a relationship (married, engaged) and not in a relationship (single, divorced/separated, widowed). Univariate and multivariable logistic regression models were used to examine the extent to which personal finance perceptions, student loan indebtedness, and demographic characteristics predicted postgraduate intentions (direct practice entry vs. not). Similarly, multinomial logistic regression models were used to examine the extent to which personal finance perceptions, student loan indebtedness, and demographic characteristics predicted anticipated practice setting (independent, chain, supermarket/mass merchandiser, hospital, and other).

RESULTS

A total of 763 usable responses were obtained across the three colleges (response rate = 90.3%). Table 1 presents students' demographic, career, and personal finance characteristics. Overall, 53% of students reported planning to practice in a community pharmacy setting after graduation, and 54% of students indicated they plan to enter practice directly. Students reported an anticipated personal student loan debt mean at graduation of $162,747 and an estimated 7.4 years to pay off all non-mortgage household debt post-graduation.

Responses to items assessing personal finance perceptions are presented in Table 2. Unweighted mean scores across personal finance constructs were 3.14 ± 0.92 for risk mitigation and retirement perceptions, 3.71 ± 0.89 for debt influence and pressure, and 3.73 ± 0.79 for personal finance self-efficacy beliefs. Higher risk mitigation and retirement and self-efficacy perceptions indicate positive perceptions of financial preparedness whereas higher debt influence and pressure scores indicate an increased sense of pressure.

Table 3 displays the univariate and multivariable associations between student demographic characteristics, personal finance characteristics and perceptions, and postgraduate training plans. Anticipated student loan indebtedness was not a significant predictor of planning to pursue postgraduate training. In univariate analyses, a one-point increase in debt influence and pressure perceptions was associated with a 23% decrease in intention to pursue postgraduate training (OR=0.77; 95% CI =0.65-0.91, p=0.002). Multivariable analysis revealed a similar significant association between debt influence and pressure perceptions (aOR=0.78; 95% CI=0.65-0.94, p=0.009). No other significant associations were noted in relation to pursuance of postgraduate training.

Table 4 presents results of multinomial logistic regression analysis for choice of primary practice setting post-graduation. As compared to students who selected chain community as their anticipated practice setting, students who selected independent pharmacy were less likely to be in a relationship (OR=0.54; 95% CI=0.31-0.94, p=0.028) and less likely to have a bachelor's degree (OR=0.51; 95% CI= 0.30-0.86, p=0.012). The odds of entering supermarket/mass merchandise community pharmacy (vs. chain community pharmacy) decreased 4% for every $10,000 increase in student loan debt (OR=0.96;95% CI=0.92-0.99, p=0.045). Similarly, the odds of indicating hospital pharmacy (vs. chain community pharmacy) as the anticipated setting decreased 36% with every 1-point increase in debt influence and pressure perceptions (OR=0.64; 95% CI=0.50-0.81, p<0.001).

DISCUSSION

Given recent emphasis on indebtedness associated with obtaining a Doctor of Pharmacy degree, we sought to describe student pharmacists' personal finance perceptions and examine the extent to which personal finance perceptions, student loan indebtedness, and demographic characteristics predict post-PharmD career intentions. To our knowledge, this is the first study to examine personal finance-related correlates of post-PharmD career planning across multiple institutions. Where Yusuf et al found that lower student loan indebtedness was associated with choosing independent as compared to chain pharmacy, this study found that less indebtedness was associated with choosing the supermarket/mass merchandise setting as compared to the chain setting.[10] Across the three colleges studied, only one statistically significant association (supermarket/mass merchandise vs. chain community) was noted between students' anticipated student loan indebtedness at graduation and either choice of practice setting or the decision to pursue postgraduate training. Interestingly, a perception of debt influence and pressure associated with having student loan debt, regardless of the actual level of student loan debt anticipated at graduation, was significantly positively correlated with intention to enter practice directly (as compared to pursuing postgraduate training) and intention to work in the chain community pharmacy setting (as compared to hospital pharmacy). These findings are likely related given the large number of students who indicated residency as their postgraduate training path and the extent to which postgraduate year 1 (PGY-1) residencies take place in hospital settings.

While anticipated student loan debt value was not a significant predictor of pursuance of postgraduate training, perceived debt pressure and influence was a significant predictor. The correlation between debt pressure and anticipated student loan debt was $r=0.340$, $p<0.001$. The items that comprised the debt pressure factor focused on concern with debt and pressure associated with debt, as well as the influence of debt on career plans. Whereas Cain et al speak to financial pressures at the state level as a factor that influences indebtedness, this study indicates debt pressure perceptions influence career decision making at the student level.[17] This is similar to Chisholm-Burns et al's finding that stress and debt level are positively correlated.[13] This finding could potentially serve as an intervention point for colleges if educating students about and

equipping students to manage student loan debt post-graduation mitigates said pressure. Based on this study, an intervention that focuses on equipping students to manage the pressure associated with accruing student loan debt, in addition to managing debt load, may have more influence on career decision making than interventions that decrease actual student loan debt. It is also possible that the debt pressure and influence perceptions could be related to other characteristics or situations (e.g., family pressures, religious beliefs, stress) that were not addressed in the survey instrument. Chisholm-Burns et al's work support this.[13] Schools and colleges may be able to assist students with individual variables that influence debt pressure with targeted interventions. McCollum et al noted that salary level, a perception of high debt, and family obligations were factors that influenced students' decisions not to pursue residency training.[12] There is no evidence of family obligations such as the number of dependents or relationship status playing a role in pursuance of postgraduate training in our study. Two additional characteristics that warrant further study are the student's parents' income and parents' net worth. Students' perceptions of debt pressure may be related to the environments in which they were raised.

There are several limitations to the study that warrant mention. Given the cross-sectional nature of the study design, we could not examine the extent to which anticipated post-PharmD plans matched the actual career/training paths pursued post-PharmD. Moreover, the extent to which students are able to accurately report anticipated student loan debt upon graduation is unknown. Additionally, whereas the exploratory factor analysis of the personal finance perception items resulted in three, well-defined factors with good internal consistency, additional validity testing is warranted. Finally, while multiple cohorts of students from three institutions were included in the study, caution should be used when generalizing findings to student pharmacists at other institutions.

CONCLUSION

While students' anticipated student loan debt at graduation did not have significant influence on the decision to pursue postgraduate training, this study demonstrated that increases in students' debt pressure and influence perceptions predicted direct entry in to practice. Increases in students' debt pressure perceptions were associated with increased selection of chain community pharmacy as a practice setting as compared to hospital pharmacy. Additional demographic characteristics that could be expected to influence career decisions (e.g., age, relationship status, dependents, time already spent in school) did not routinely influence career decisions. Future studies should investigate the relationship between students' personal finance characteristics and actual post-PharmD career decisions.

REFERENCES

1. Midwest Pharmacy Workforce Research Consortium. *Final report of the 2014 national sample survey of the pharmacist workforce to determine contemporary demographic practice characteristics and quality of work-life.* Minneapolis, MN; 2015.
2. The Institute for College Access & Success. *Student Debt and the Class of 2014.* Washington, DC; 2015.
3. Bureau of Labor Statistics USDoL. Occupational Employment Statistics: May 2004. 2004; http://www.bls.gov/oes/special.requests/oesm04in4.zip.
4. Bureau of Labor Statistics USDoL. Occupational Employment Statistics: 2009. 2009; http://www.bls.gov/oes/special.requests/oesm09in4.zip.
5. Bureau of Labor Statistics USDoL. Occupational Employment Statistics: May 2014. 2014; http://www.bls.gov/oes/special.requests/oesm14nat.zip.
6. Sweetland SR. Human capital theory: Foundations of a field of inquiry. *Review of Educational Research.* 1996;66(3):341-359.
7. Hagemeier NE, Murawski MM. Economic analysis of earning a PhD after completion of a PharmD degree. *Am J Pharm Educ.* 2011;75(1):Article 15.
8. Chisholm-Burns MA, Gatwood J, Spivey CA. Economic Analysis of Obtaining a PharmD Degree and Career as a Pharmacist. *Am J Pharm Educ.* 2015;79(8):Article 117.
9. Chisholm-Burns MA, Gatwood J, Spivey CA, Dickey SE. Break-Even Income Analysis of Pharmacy Graduates Compared to High School and College Graduates. *Am J Pharm Educ.* 2016;80(3):Article 44.
10. Yusuf AA, Schommer JC, Mott DA, Doucette WR, Gaither CA, Kreling DH. Association between student loan debt on graduation, demographic characteristics and initial choice of practice setting of pharmacists. *Innovations in Pharmacy.* 2011;2(3):Article 51.
11. Park T, Yusuf AA, Hadsall RS. Pharmacy Students' Attitudes Toward Debt. *Am J Pharm Educ.* 2015;79(4):Article 52.
12. McCollum M, Hansen LB. Characteristics of Doctor of Pharmacy graduates entering and not entering residency training upon graduation. *Am J Pharm Educ.* 2005;69(3):Article 42.
13. Chisholm-Burns MA, Spivey CA, Jaeger MC, Williams J. Associations between Pharmacy Students' Attitudes Toward Debt, Perceived Stress, and Federal Student Loans Borrowed. *Am J Pharm Educ.* 2017;Early online August 3.
14. Chui MA. An Elective Course in Personal Finance for Health Care Professionals. *Am J Pharm Educ.* 2009;73(1):Article 6.

15. Financial Literacy Declining Among High School Seniors [press release]. Washington, DC; 2008.
16. Cain J, Campbell T, Congdon HB, et al. Pharmacy student debt and return on investment of a pharmacy education. *Am J Pharm Educ.* 2014;78(1):Article 5.
17. Cain J, Campbell T, Congdon HB, et al. Complex issues affecting student pharmacist debt. *Am J Pharm Educ.* 2014;78(7):Article 131.
18. Sweet BV, Kelley KA, Janke KK, et al. Career Placement of Doctor of Pharmacy Graduates at Eight U.S. Midwestern Schools. *Am J Pharm Educ.* 2015;79(6):Article 88.

Table 1. Student Demographic and Personal Finance Characteristics (N=763)

Item	Value
Gender, No (%)	
Female	410 (53.7)
Male	353 (46.3)
Age, Mean (SD)	24.9 (3.6)
College type, No (%)	
Private	206 (27.0)
Private at public institution	233 (30.5)
Public	324 (42.5)
Previous bachelor's degree, No (%)	
Yes	555 (72.8)
No	207 (27.2)
Marital status, No (%)	
Single, never married	549 (72.1)
Engaged	47 (6.2)
Married	153 (20.1)
Divorced/separated	12 (1.6)
Number of dependents, No (%)	
Zero	699 (93.4)
One	32 (4.3)
Two or more	17 (2.3)
Anticipated primary practice setting, No (%)	
Academia	23 (3.0)
Ambulatory care	45 (5.9)
Community – chain	233 (30.7)
Community – independent	112 (14.7)
Community – supermarket/mass merchandiser	55 (7.2)
Hospital	218 (28.7)
Industry	26 (3.4)
Managed care	12 (1.6)
Other	36 (4.7)
Postgraduate training plans, No (%)	
Direct entry in practice	409 (54.0)
Fellowship training	9 (1.2)
Graduate school	14 (1.8)
Residency training	311 (41.0)
Other	15 (2.0)
Anticipated personal student loan debt at graduation, Mean (SD)	162,747 (87,093)
Anticipated household student loan debt at graduation, Mean (SD)	179,535 (101,395)

Anticipated years to pay off all household debt other than mortgage after graduation, Mean (SD)	7.4 (5.8)

Table 2. Descriptive Statistics for Personal Finance Perception Items (N=763)

Item/Construct	**Median (IQR)**	**Mean (SD)**	**Cronbach's alpha**
Personal Finance Self-Efficacy			0.88
I'm confident in my ability to manage my personal finances	4 (3-5)	3.81 (0.99)	
I'm confident in my ability to get out of debt after I graduate	4 (4-5)	4.05 (0.98)	
I have a plan to get out of debt once I graduate	4 (3-4)	3.58 (1.12)	
I am confident in my ability to develop a personal budget	4 (3-5)	3.79 (1.00)	
I am confident in my ability to stick to a budget once it is developed	4 (3-4)	3.62 (1.06)	
I am confident in my ability to save appropriately for my retirement	4 (3-4)	3.63 (1.06)	
I am confident in my ability to save money for major purchases over $10,000	4 (3-4)	3.62 (1.10)	
Debt Influence and Pressure			0.75
I'm concerned about my anticipated debt load after I graduate	4 (3-5)	3.96 (1.18)	
I feel pressured to get out of debt after I graduate from pharmacy school	4 (3-5)	4.02 (1.11)	

My debt load factors in to my career plans after I graduate	4 (3-5)	3.62 (1.19)	
My debt load influences my decision to pursue postgraduate training	3 (2-4)	3.23 (1.26)	
Risk Mitigation and Retirement			0.76
My retirement goals influence my anticipated career path after graduation	3 (3-4)	3.37 (1.13)	
I have a plan to fund my retirement after I graduate	3 (2-4)	3.22 (1.22)	
I have a good understanding of the role of insurance in protecting my assets	3 (2-4)	3.16 (1.26)	
I am confident in my ability to choose appropriate investment options	3 (2-4)	2.81 (1.25)	

IQR=interquartile range; SD=standard deviation

Table 3. Logistic Regression Analysis Output for Pursuance of Postgraduate Training vs Directly Entering Practice (N=763)

Variable	Unadjusted OR (95% CI)	p value	Adjusted OR* (95% CI)	p value
Age	1.00 (0.96-1.04)	0.924	1.01 (0.96-1.06)	0.677
Female vs. male	1.06 (0.80-1.41)	0.686	1.05 (0.77-1.43)	0.768
In a relationship vs. not	0.83 (0.60-1.15)	0.264	0.83 (0.57-1.21)	0.342
Number of dependents	1.06 (0.75-1.50)	0.733	1.31 (0.84-2.04)	0.240
Bachelor's degree vs. not	1.24 (0.90-1.71)	0.198	1.09 (0.76-1.57)	0.626
Anticipated student loan debt at graduation (in 10,000s)	1.00 (0.98-1.01)	0.638	1.00 (0.98-1.02)	0.837
Personal finance self-efficacy	0.92 (0.79-1.08)	0.314	1.10 (0.84-1.43)	0.500
Debt pressure perceptions	0.77 (0.65-0.91)	0.002	0.78 (0.65-0.94)	0.009
Risk and retirement perceptions	0.86 (0.74-1.02)	0.076	0.79 (0.60-1.04)	0.090

OR=odds ratio; CI=confidence interval

*: Adjusted for other variables included in the model

Table 4. Multinomial Logistic Regression Analysis Output for Anticipated Practice Setting (N=763)

Variable	Community - Chain	Community - Independent		Community – Supermarket/Mass merchandiser		Hospital		Other	
		aOR* (95% CI)	p value	aOR* (95% CI)	p value	aOR* (95% CI)	p value	aOR* (95% CI)	p value
Age	Ref	0.97 (0.89-1.06)	0.554	0.99 (0.89-1.11)	0.971	0.99 (0.93-1.06)	0.784	1.06 (0.99-1.13)	0.119
Female vs. male	Ref	0.74 (0.45-1.22)	0.233	0.98 (0.52-1.84)	0.944	0.95 (0.63-1.42)	0.789	1.24 (0.79-1.97)	0.354
In a relationship vs. not	Ref	0.54 (0.31-0.94)	0.028	0.83 (0.40-1.77)	0.633	1.17 (0.71-1.94)	0.544	1.33 (0.75-2.36)	0.328
# of dependents	Ref	0.44 (0.14-1.33)	0.145	1.44 (0.64-3.26)	0.384	1.20 (0.66-2.16)	0.554	1.30 (0.71-2.38)	0.401
Bachelor's degree vs. not	Ref	0.51 (0.30-0.86)	0.012	1.92 (0.88-4.21)	0.102	1.44 (0.90-2.30)	0.128	1.23 (0.73-2.07)	0.429
Anticipated student loan debt at graduation (in 10000s)	Ref	1.02 (0.99-1.05)	0.290	0.96 (0.92-0.99)	0.045	1.01 (0.98-1.03)	0.582	0.99 (0.97-1.03)	0.802
Personal finance self-efficacy	Ref	1.21 (0.79-1.85)	0.392	1.17 (0.67-2.04)	0.572	1.15 (0.81-1.63)	0.438	1.09 (0.74-1.61)	0.648
Debt pressure perceptions	Ref	0.83 (0.61-1.12)	0.225	0.89 (0.61-1.31)	0.568	0.64 (0.50-0.81)	<0.001	0.73 (0.55-0.96)	0.025
Risk and retirement perceptions	Ref	0.72 (0.47-1.12)	0.150	0.75 (0.42-1.31)	0.312	0.83 (0.58-1.20)	0.323	0.69 (0.46-1.03)	0.071

[a] OR=adjusted odds ratio; CI=confidence interval

*: Adjusted for other variables included in the model