

Financial Literacy: The Impact of Financial Training in High School on the Credit Behavior of College Students

The Honors Program
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ABSTRACT

Managing credit is increasingly important not only for adults, but for college students. In recent years with sky rocketing tuition and easily available credit, college students find themselves with increasing debt burdens that result in serious and lasting financial problems. In response, financial literacy programs are emerging in hopes that better educated people will make healthy financial decisions, as well as responsibly manage credit. Research suggests that financial education should begin in high school so that young adults can effectively manage credit during the college years. This study assesses both college students' financial knowledge and their credit management practices. Specifically, it examines whether Bryant University students retain and use the financial training from high school when making financial decisions and managing credit. The findings from this study illustrate that almost 75% of the 345 students that manage their own credit in college received financial training in high school and that although this training is negatively correlated with poor credit management behavior in college, the association is weak. This study further suggests that even with additional financial literacy training available in college, almost 60% of these students demonstrate poor credit management behavior. As a result, this study suggests that young people need to improve their credit management skills by setting budgets and employing good credit management techniques.

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INTRODUCTION

While many adults have credit problems, they are not the only ones using and abusing credit. In fact, credit problems of college students aged 18-22 often go unnoticed, but have serious long-term impacts on the lives of young people. This paper identifies several financial literacy programs that are available to the public that attempt to address some of these issues. More specifically, I examine the relationship between exposure to financial training in high school, and subsequent credit managing behavior as college students. In the process, the paper reports on the availability of high school financial training or literacy programs.

This paper specifically focuses on the credit behavior of college students, and the influence of high school financial literacy training. Using survey data on Bryant University students, the study examines if financial literacy programs implemented in high school have a lasting impact on the financial decisions made by college students. This study finds that young people need to improve their credit management skills by setting budgets and employing good credit management techniques. This includes, among other things, avoiding excessive use of debt, avoiding the practice of just making minimum payments on credit accounts, and avoiding any behavior that results in fines, excessive fees, and increases in interest rates, as well as adversely impacting their credit worthiness as indicated by their credit scores (Equifax, Experian, TransUnion, and/or FICO scores).

In the first section of this paper, I provide a brief overview of the financial literacy literature. I focus on the financial literacy skills of high school students and the efficacy of these programs to provide financial education. I examine what is being done to improve financial education and the existing research on its effectiveness. Current research shows that high school students lack motivation to learn financial education contributing to why they don't seem to retain or use the knowledge when they get to college.

In this paper, I examine financial education among young adults and college students. Existing research shows that there has been a recent effort to improve college students' financial literacy, but little evidence exists regarding whether or not this information is being

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used when college students make financial decisions. In addition, research shows that in order to measure whether programs are achieving intended outcomes, formal program evaluations must be used. Section II describes the data and provides descriptive statistics on the credit behavior of Bryant University students. Well known for its business education, Bryant undergraduates must either major or minor in business, and are required to take a course in financial management. In addition, in the Foundations for Learning class that all students are required to take as freshmen, most students attend finance professor Peter Nigro's *Show Me the Money: College Students and Credit Cards*, where he discusses the problems students have with credit card debt. These elements theoretically reinforce any financial literacy training exposed to in high school, and are controlled for in the model.

Section III of the paper employs a multivariate model to examine whether exposure to financial training in high school significantly explains credit management practices as college students.

My results show that Bryant University students exposed to financial literacy training in high school retain and apply this training when making credit decisions and managing credit. The section also examines how young adults can improve credit management practices by additional financial literacy training in college, so that any information learned in high school is reinforced and actually applied, particularly during the college years. Section IV provides conclusions and policy implications, as well as suggestions for improving financial literacy among college students.

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AVAILABLE FINANCIAL LITERACY PROGRAMS

Currently, several programs are available to the public that attempt to improve financial literacy among Americans. This topic has become more and more important, particularly as a result of the current financial crisis. As a result, a strong attempt is being made to provide education to the public on how to do things from balancing a check book to planning for retirement.

One such program, provided by the Federal Trade Commission website, is National Consumer Protection Week (NCPW). This program, called *NCPW 2009- Nuts and Bolts: Tools for Today's Economy*, is a source that has information regarding budgeting paychecks, improving credit history, and information on mortgages, money, and investments for consumers. It also provides information to businesses looking to protect against security theft, fraud, and more. (<http://www.ftc.gov/bcp/edu/microsites/ncpw/index.html>)

Another example is The Federal Deposit Insurance Corporation (FDIC) financial literacy program, known as *Money Smart- A Financial Education Program*, that was launched in 2001. The curriculum is designed “to help individuals outside the financial mainstream develop financial skills and positive banking relationships.”

(<http://www.fdic.gov/consumers/consumer/moneysmart/index.html>) For adults, there are 10 Money Smart Training modules that instructors or corporations can use to teach financial education. The modules include Bank on It, Borrowing Basics, Check it Out, Money Matters, Pay Yourself First, Keep it Safe, To Your Credit, Charge it Right, Loan to Own, and Your Own Home. In addition to these training modules, there is also education provided particularly to young adults, where “youth ages 12-20 learn the basics of handling their money and finances, including how to create positive relationships with financial institutions.” (<http://www.fdic.gov/consumers/consumer/moneysmart/index.html>) The eight training modules for young people include Bank on It, Check it Out, Setting Financial Goals, Pay Yourself First, Borrowing Basics, Charge it Right, Paying for College and Cars, and A Roof Over Your Head. These training programs are similar to those of the adult program, but are clearly geared towards issues young people face. The teaching modules are taught for 90-

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110 minute sessions, but the content can be taught in multiple parts, if desired. A great aspect to this program is that “the curriculum can be used by individuals who are seasoned, professional educators as well as informal educators...The materials are fully scripted so someone can pick up the instructor guides and begin teaching without having previous teaching experience or extensive subject matter expertise.”

(<http://www.fdic.gov/consumers/consumer/moneysmart/overview.html>) The FDIC has truly developed this program since its launching in 2001 in an attempt is being made to educate society on financial decision making.

A third financial literacy program is *My Money*, which can be found at mymoney.gov, a United States’ government website, “dedicated to teaching all Americans the basics about financial education.” (www.mymoney.gov) Like the previously mentioned programs, consumers search the site and find various information regarding credit, financial planning, budgeting, saving, etc.

Finally, a fourth program mentioned various times throughout this paper is the *JumpStart Coalition for Personal Financial Literacy* that focuses on educating students. The program strives to improve “the financial literacy of kindergarten through college-age youth by providing advocacy, research, standards and educational resources [, and] to prepare youth for life-long successful financial decision-making.” (<http://www.jumpstart.org/bp.cfm>) The website contains vast amounts of information, including data on U.S. states requiring courses in financial literacy.

While many more public financial literacy programs exist, the programs listed above are often cited as the most helpful and popular. Some of these programs specifically address educating America’s youth, which is a necessary step in today’s society as more and more young people face increasingly complex financial decisions without understanding the consequences of their actions.

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LITERATURE REVIEW

Financial Literacy

What exactly is financial education? According to Alison O’Connell, financial education is “the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being” (O’Connell, 2009). As a result of receiving financial education, consumers should be able to make more informed financial decisions, and thus be more financially literate. This is not always the case, however, for reasons that are not always clear.

Previous studies reveal that while not all Americans are financially illiterate, financial literacy is an area that needs improvement. For instance, G.J. Alexander et. al. 1998 conducted a study that “examined responses from a survey of 2,000 randomly selected mutual fund investors who purchased shares from six different distribution channels.” Using a quiz to measure investor financial literacy, as well as a multivariate logit analysis, researchers found that “there is room for improvement in the level of financial literacy of mutual fund investors” (G.J. Alexander et. al. 1998). Particularly, investors can improve their knowledge “of the expenses and risks associated with mutual funds” (G.J. Alexander et. al. 1998). Therefore, mutual fund investors vary in their level of financial knowledge, but nonetheless, financial literacy needs to be improved, even for those who participate in investments.

Although financial literacy needs to be improved among investors, other studies show the importance of improving financial literacy among college students. A 2007 survey by The Hartford Financial Services Group Inc. found that 76% of college students wished “they had more help preparing for their financial future” (Ragen & Ragen, 2009). In fact, only 24% of students and just 20% of parents “say students are very well prepared to deal with the financial challenges that await them after graduation” (Ragen & Ragen 2009).

Keybank and Harris Interactive (2006) using similar data find the need to improve financial literacy. For instance, about 32% of college students “admitted that they were ‘not at all’ or

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‘not very well prepared’ for managing their money on campus,” when looking back to their freshman year. This study also found that “three-quarters (75%) [of students] made mistakes with their money when they arrived on campus, and the biggest mistakes were overspending on food (21%), entertainment (19%) and putting too many purchases on their credit card (16%)” (Ragen & Ragen, 2009, See Figure 1). Problems with student credit card use continue to rise. For example, a 2007 survey conducted by Buffalo State College. Results show that “college students carry an average of \$1,035 of credit card debt” (Ragen & Ragen, 2009). Students disclosed that the reason for putting so many purchases on credit cards is because they think will make enough money after college and expect to be able to repay the debt. Clearly, this kind of thinking among college students and these kinds of poor money management practices demonstrate the lack of financial literacy among this group.

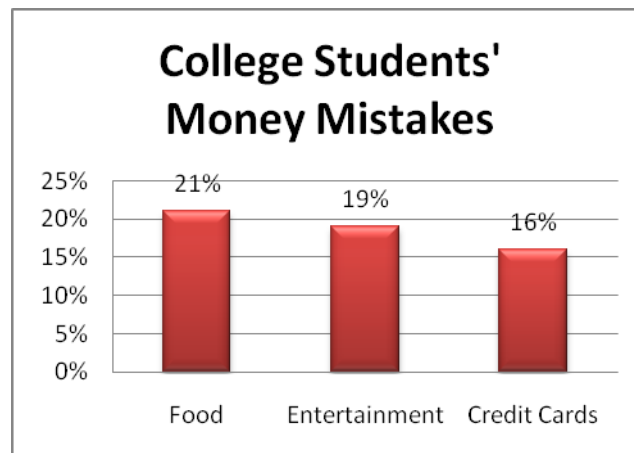


Figure 1- College Students' Money Mistakes

The following story demonstrates that even educated individuals, like so many in today’s society, continue to struggle with financial decisions. Financial literacy is something that everyone should be familiar with, but Herbert Rotfeld tells a story which clearly demonstrates that people are severely lacking this kind of knowledge. While working at a university, a faculty member not known to Rotfeld approached him, explaining that he was a professor in the college of liberal arts. He then went on to tell Rotfeld that his wife had recently inherited some money, and he thought it would be best to ask someone in the college of business for advice. This professor “operated under a belief that everyone in the college of business

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building would be equally capable of providing the specialized expertise he sought” (Rotfeld, 2008). Rotfeld was “amazed at his naive view of the academic disciplines” (Rotfeld, 2008). Rotfeld also realized that this faculty member “did not distinguish between teachers of advertising, finance, personnel management, or business law [...which was] akin to not caring if he received advice on a vision problem from an ophthalmologist, podiatrist, or psychiatrist” (Rotfeld, 2008). This faculty member, being a prestigious professor with advanced degrees, could have done a small amount of research on his own in order to make a decision about what to do with the money. Instead, however, Rotfeld believed this man “would blindly invest the money in any offhand comment made to him by the next person he encountered” (Rotfeld, 2008).

Rotfeld’s story, although anecdotal, is an example of something many people in today’s society face, which is difficulty when it comes to making financial decisions. Rotfeld explains that people have this problem because no matter their level of education, they do “not want to be that involved in making decisions about money” (Rotfeld, 2008). Other times, people find financial information “too complicated or confusing” (Rotfeld, 2008). Still, there are examples of people out there, like the man in this story, who are “fully capable to comprehend the materials... [but they] would rather just find someone they think they can trust who will handle it” (Rotfeld, 2008). Even worse, when “people possess [financial] knowledge and information, they ignore it [or] do not use it” (Rotfeld, 2008). Rotfeld’s story is an example of how even well educated individuals lack, or choose not to use, the financial knowledge needed to make financial decisions. As presented in this paper, several public programs are available to teach people financial and credit management, but ultimately it is up to the individual to take this information and apply it. Unfortunately, many people, similar to the man in the story, may receive financial education, but they are not necessarily making more informed financial decisions. As a result, the lack of financial literacy among Americans is at an all time high.

Despite public programs and various forms of financial training, a problem with financial literacy continues to exist not only for adults, but also for young people. There are several

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important reasons that financial literacy, particularly among young people, needs to be improved. For instance, the millennial generation, those born between 1976-1996, is among the highest group suffering from “mounting national and personal debt and irresponsible spending and lending practices on college campuses” (mobilize.org). In fact, young adults between the ages of 20-25 are the fastest growing group of those filing for bankruptcy. Also, between 1997 and 2007, the “average undergraduate student loan debt rose from \$9,250 to \$19,200” (Lusardi, Mitchell, & Curto 2009) A Kent University study shows that the average undergrad had an “estimated credit card debt balance of over \$5,000” (Stolle and Dumpe, 2009).

Young adults suffer because of poor financial decisions. Does financial education actually lead to better financial decisions among young people? Theory suggests that “financial education leads to greater financial knowledge, greater financial knowledge then leads to better financial behavior, and better financial behavior ultimately leads to improved consumer outcomes” (Hathaway and Khatiwada, 2008). Empirical evidence tends to confirm that “financial knowledge is positively correlated with consumer financial behavior,” according to Hathaway and Khatiwada. It is important to educate young people in particular because “students are the consumers of the future” (Mundy, 2008). Additionally, “financial education can help provide students with the building blocks which they will need to make sound financial decisions throughout their lives. If responsible attitudes and good habits are instilled in people at an early age, they are less likely to get into financial difficulties in later life and are more likely to make financial provision for their future” (Mundy, 2008). Some of the benefits of financial education received earlier in life include the ability to “create household budgets, initiate savings plans, and make strategic investment decisions” (Greenspan, 2002). With the implementation of financial education programs, there is a greater chance that consumers can improve how they make financial decisions.

Efficacy of Financial Education Programs

While the ultimate goal of all financial education programs is to enable people to “make informed decisions in order to improve their financial well-being,” (O’Connell, 2009) research illustrates mixed evidences of the effectiveness of these programs. Hathaway and

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Khatiwada found that “highly targeted programs, unlike general programs, tend to be effective in changing people’s financial behavior, both in the short run and the long run” (Hathaway and Khatiwada, 2008). They argue that programs which have a specific focus, such as home ownership or credit card counseling, are the programs that are most successful at improving financial literacy. In addition, success is also more likely when counseling is done before consumers engage in a particular activity. For instance, credit card counseling has two objectives, according to Hathaway and Khatiwada. They argue that “the first [objective] is to address the client’s immediate problem and lower the debt burden (post-crisis), while the second is to improve borrower awareness and planning and budgeting skills in the long run (pre-crisis)”. As a result, “pre-crisis counseling was more effective at limiting bad credit outcomes or behaviors” (Hathaway and Khatiwada, 2008). The study further shows that people “who received [pre-crisis counseling] were more likely to have more responsible credit habits and higher rates of savings” (Hathaway and Khatiwada, 2008).

Researchers examined the characteristics of other successful financial education programs and find that they tend to be more successful when individuals interact with others. An example of interaction can be seen through “activities such as a stock game” (Mandell and Klein, 2007). It is particularly helpful when individuals, “[share] among family members [because doing so] can...play an important role in household financial decisions” (Lusardi, et. al., 2009). Like the findings of Hathaway and Khatiwada, studies show that it is more beneficial to provide financial education *before* individuals begin making financial decisions.

EverFi, created by Tom Davidson, is “Web-based software that teaches young adults to manage their money” (Bruder, 2009). The company offers “a five hour series of Web tutorials that let students explore real-world settings...while absorbing lessons about saving money, earning interest, and managing debt” (Bruder, 2009). As students gain more skills, they can play a SimCity-style game in which “they control characters’ spending habits, reaping the rewards of good choices and suffering the consequences of bad ones” (Burder, 2009). Making financial education interactive is one way to make the subject interesting to young adults.

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Although interactive, specific, and targeted programs tend to be more effective, “existing research on the effectiveness of financial education programs is incomplete and unconvincing” due to the lack of program evaluations (Hathaway and Khatiwada, 2008). The major problem is that “there are really no industry standards for program evaluations,” making it difficult to measure the impact and effectiveness of programs, which means we cannot determine if our education attempts are truly successful at achieving their goal (Hathaway and Khatiwada, 2008). It could be that the programs “are simply not effective at transferring knowledge ... [or] perhaps, they are poorly designed or administered” (Hathaway and Khatiwada, 2008). Some programs do provide evaluations, but there seems to be an “inability of these evaluations to capture whether the programs worked or not” (Hathaway and Khatiwada, 2008). Since we don’t have standards for evaluations, we also don’t have a clear picture “of what works best and why” (O’Connell, 2009).

It is particularly difficult to “to evaluate the effectiveness of financial education among the young” (Lusardi, et.al, 2009). Currently, financial education programs only “assess whether individuals increase their saving after having been exposed to financial education programs” (Lusardi, et.al, 2009). This type of assessment, however, is not enough. New evaluation ways need to be developed to assess “the impact of financial education on the young” (Lusardi, et.al, 2009). One suggestion is to examine “levels of debt and borrowing behavior among the young” (Lusardi, et.al, 2009). Overall, the current problem that needs to be addressed is that we “just don’t know if the programs are not working or if we don’t understand whether they are working because they are not being evaluated properly” (Hathaway and Khatiwada, 2008). Program evaluations could “help to identify best practices, improve program effectiveness, and lead to policies that help consumers make better decisions” (Hathaway and Khatiwada). Some argue these program evaluations be planned during the initial design phases of the financial education program. Nonetheless, it is obvious that in order to measure financial education program effectiveness, evaluations need to be completed.

Despite findings that financial education exposure results in increased financial literacy, this exposure does not necessarily mean consumers will retain and use the information later in life.

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Mandell and Klein (2007) found this argument to be particularly true among high school students. First of all, “the need for financial education for children and youth is clear and compelling” (McCormick, 2009). Many argue that young people who have been exposed to financial decisions being made in the household and by family members are more likely to engage in better financial decisions. However, “there are groups who will not be able to benefit from these sources because their parents or friends do not have college degrees or are not financially knowledgeable” (Lusardi, et.al, 2009). Therefore, “providing financial education in high school may be particularly beneficial to children from disadvantaged backgrounds” (Lusardi, et.al, 2009). Mandell and Klein confirm the importance of beginning financial education in high school. Since little “can be done to affect student demographics, the brunt of the responsibility for improving financial literacy has fallen upon the secondary educational system” (Mandell and Klein, 2007).

The Jump\$tart Coalition for Personal Financial Literacy established financial literacy standards for high school seniors. For instance, upon graduation, a high school senior should be able to “find, evaluate, and apply financial information” (www.jumpstart.org) In other words, a high school senior should know how to research financial knowledge himself without having to rely on others, such as his or her parents. A high school senior should also “set financial goals and plan to achieve them.” These should include establishing budgets for spending, as well as setting a goal to deposit a certain amount of money each week or month into a savings or checking account. Additionally, seniors should be able to “develop income-earning potential and the ability to save, use financial services effectively, meet financial obligations, and build and protect wealth” (www.jumpstart.org). These standards are considered to be fundamental and basic financial knowledge that will be necessary for establishing good credit behavior and making sound financial decisions a few short years after high school is completed.

The evidence on the efficacy of financial literacy programs is mixed. Unfortunately, high school seniors are not meeting the Jumpstart financial literacy standards, even if they received financial education in high school. A Jump\$tart survey revealed that “high school seniors who

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have completed a full-semester high school course in money management or personal finance are no more financially literate than students who have not taken such a course” (Mandell and Klein, 2007). Furthermore, studies indicate that those using financial services and making financial decisions are more likely to score higher on financial literacy survey questions. Mandell and Klein, however, found in a 2006 Jump\$start survey that “students who do not have credit cards know more about credit than students who do have credit cards.” Similarly, they also found that “students who own stock in their own name do not know any more about investments than students who own stocks in their parents’ name or who do not own stocks” (Mandell and Klein, 2007). Additionally, studies show that if people participate in financial education programs in close proximity to making an important financial decision, such as choosing automobile insurance, they are more likely to make good financial decisions. Conversely, Mandell and Klein found that for high school students, “even ‘just-in-time’ education, taken by students close to the time that they make important financial decisions...does not seem to improve knowledge in these decision areas” (Mandell and Klein, 2007). Therefore, these results “provide limited support to the belief that financial knowledge is related to financial practices” (Mandell and Klein, 2007).

Why High School Seniors Are Not Retaining and Applying Financial Education

Research on the success of financial literacy programs is mixed depending on the group examined. For example, Bernheim, Garret, and Maki (2001) find that high school seniors taking a financial management course in high school saved a higher portion of their incomes than others in middle age. Alternatively, Mandell (2006) shows that among high school students, knowledge was not retained after completing the financial education. Both Mundy (2009) and Mandell (2006) results stresses the importance of educating people at a young age before they have to start making financial decisions. Why isn’t the information being retained? Although most financial education programs have been effective, in the case of high school students, there have been greater indications of this group not using the information they’ve learned, or worse, not receiving any financial education at all. Research provides several explanations why this group is lacking in financial literacy. For instance, one of the problems is that most U.S. high schools don’t require financial education. According to the

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JumpStart State Requirements website (www.jumpstart.org), in 2009, only three states require at least one-semester course devoted to personal finance, while 18 states require it be incorporated into other subject matter. As for the remaining states, there is no financial education requirement, but some may exist through elective instruction.

(<http://www.jumpstart.org>) The majority of high school seniors in the United States cannot be expected to be financial literate when more than half of them aren't required to take financial education courses. Perhaps if more states made this type of education a requirement, high school seniors across the nation would be exposed to the tools they need to make relevant financial decisions. Unfortunately, there are major "challenges to embedding financial education successfully into schools [such as costs and] persuading policy and educational decision-makers to provide room in the curriculum" (Mundy, 2009). In order to teach financial education in a way that students will find attractive, high quality materials must be used, which could be costly. (Mundy, 2009) The lack of financial literacy among young adults is more costly; thus the Obama administration is considering forcing financial education requirements into the curriculum. (www.jumpstart.org)

High school seniors are not learning financial information because, according to Tom Davidson, "this stuff is the most ungodly, boring content on the planet" (Bruder, 2009). Mandell and Klein (2007) argue that financial education does not stick with high school seniors because "they do not perceive that it is relevant to their lives." According to motivational and goal setting theory, high school seniors will be engaged in what they are learning only if they are motivated by the information. Based on the 2006 survey, when it comes to financial literacy, "students may lack the intrinsic motivation to learn and retain concepts of personal financial management" (Mandell and Klein, 2007). If however, students have future goals of "a college degree, a professional job, or a higher salary," then they are more likely to have higher financial literacy (Mandell and Klein, 2007). Therefore, financial literacy programs should address student expectations so that they can develop a plan to lead them to successful financial management. If these programs demonstrate how "implementing financial principals will add significant value to their lives," then high school seniors will be far more likely to retain and actually use the information when making financial decisions.

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(Mandell and Klein, 2007) In order for high school students to maintain and apply their financial education, they must be reminded that financial decisions will greatly impact their lives. Being reminded of this repeatedly will improve student motivation, which will result in increased financial literacy.

Financial Education at the College Level

The earlier financial education is introduced to students, the better. (McCormick 2009) Many states, however, don't require financial management training in the secondary education system, while many parents are not knowledgeable enough themselves to teach their children healthy financial practices. Often, the college years are the first time most students make financial decisions, including signing up for a credit card, taking out loans, and choosing auto insurance. Unfortunately, research shows that for this group, debt seems to be a mounting problem. For example, according to the U.S. Senate Committee on Banking, Housing and Urban Affairs in 2002, "the fastest growing group of bankruptcy filers was those ages 25 and younger" (Lusardi, et.al, 2009). Clearly, the debt problem among college students is "evidence that young people may lack sufficient knowledge to successfully navigate their financial decisions" (Lusardi, et.al, 2009). In addition, students' overwhelming problems with debt suggest that the stress of having debt is causing anxiety. The 2006 USA Today/National Endowment for Financial Education (NEFE) survey found that 30% of young adults with debt, ages 22-29, "worried about it frequently; 29% had put off or decided against furthering their education because of debt; and 22% had taken a job they would not have taken otherwise because of debt" (Lusardi, et.al 2009). It is evident that financial education among college students needs to be improved to avoid high levels of debt.

Given the majority of the focus of financial education is geared towards high school students, "little information exists concerning the steps that the university community has taken (or is taking) to improve the financial decision making skills of its students" (Crain, 2009). There are, however, a few universities that have taken action to improve financial literacy, including Ohio State University, which has developed a seven-week study series on debt management, savings and investing, credit-card abuse, and identity theft. (Crain, 2009) In addition, freshman must complete multiple sessions in the series in order to receive credit for a

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mandatory Survey 100 class. Another example is Smith College, where the economics department developed a voluntary eight-week course in which students study personal finance, entrepreneurship, insurance, retirement plans, investing, and interpreting financial current events.

Kent State University elective financial literacy course, *Me and My Money* is designed for students who have never taken a business course or who are about to graduate and enter the real world. In 2008, the average Kent student graduated “with loan indebtedness of \$23,500 and a credit card balance of over \$5,000” (Stolle and Dumpe, 2009). This course covers budgeting and saving, financial goal-setting, understanding credit cards, and more. The students construct spreadsheets and develop an understanding of the time value of money. They also construct a budget based on a salary of \$43,000, which is important because most of the students don’t currently live by a budget. (Stolle and Dumpe, 2009). The results were eye-opening and discouraging because students weren’t aware that this amount would be reduced due to “taxes, benefits, and other paycheck withholdings” (Stolle and Dumpe, 2009). Currently, Kent University is considering requiring seniors to take a mandatory personal finance course before they graduate. In addition, the university wants to assure that all incoming freshman are introduced to basic financial concepts, including the use of credit cards and the importance credit scores.

Bryant University is taking action to improve student financial literacy. Clearly, a business school offers many classes in which proper financial behavior is discussed and taught, but one thing the University does to insure financial literacy is through Finance Professor Peter Nigro’s *Show Me the Money: College Students and Credit Cards*, though the Foundation For Learning (FFL) program. This program is geared towards the university’s freshmen class, who may or may not have received financial training in high school. Nonetheless, Professor Nigro gives a one hour presentation multiple times throughout each semester, where he discusses credit and the problems students have with credit card debt. For instance, the presentation argues that having a credit card is not a bad thing. In fact, Professor Nigro believes that college students should establish a positive credit history because employers

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check this kind of information when considering candidates for jobs. The problem is when students take on too much debt that they can't repay. The presentation covers important topics, including the importance of budgeting and what to look for when applying for credit cards. Some advice includes always paying the credit card payment in full since companies make their money when people make the minimum payment. In addition, students should avoid taking cash advances, know the credit scores, and look for the lowest interest rates with a card that has no annual fees.

Clearly, growing concerns over college students' misuse of credit cards, and rapidly increasing student loan indebtedness signals there is an unmistakable need for improving universities involvement in increasing financial literacy. According to Crain (2009), 58 percent of the academic affairs provosts/vice presidents at Ohio State University believe that a stand-alone personal financial literacy course *should* be included in the general education curriculum, and 12 percent believe it should be a required course, not an elective. As one Kent University student noted, "Everyone is going to need to know this information...not just business majors."

Credit Card Behavior Among College Students

College students' lack of financial literacy is most apparent in their overuse of credit cards. In the past decade, "increased number and type of credit cards on university campuses has seen an explosive level of growth" (Joo, Grable, & Bagwell, 2003). A recent study by Joo et.al found that college students had mixed practices regarding their credit use and had little credit knowledge. They also found that college students' exposure to credit impacts their attitudes of it. For instance, if students saw their parents practicing positive credit behaviors, then they were more likely to have positive attitudes about using credit. (Joo et.al., 2003).

Unfortunately, the study also found that college students are not displaying high levels of credit knowledge, nor are they improving credit card practices. Some examples of positive credit practices include paying the full payments every month, looking for the lowest possible interest rates, monitoring changes in interest rates, knowing one's credit score, and avoiding late fees. (Joo, et.al, 2003) According to "Taking Charge," a survey conducted by GfK Roper Public Affairs, demonstrates that many adults continue to practice poor credit management.

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(See Figures 1 and 2 below) Clearly, steps need to be taken to improve college students' understanding of credit card handling.

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Figure 2. How much did you worry about paying your credit card bills last month?

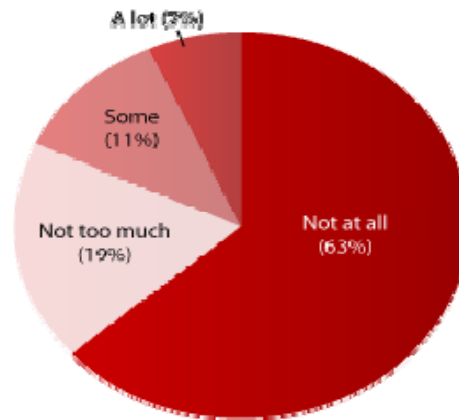
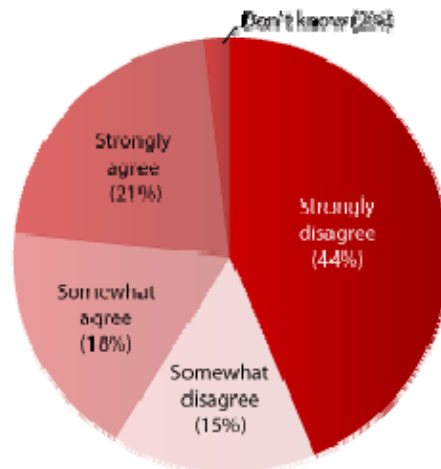


Figure 3. I am always looking for low interest rates to transfer my outstanding credit card balances.



To assess if students' attitudes and behaviors toward credit card use could be changed, Credit Wise Cats examined if a basic seminar providing education on basic money management and financial knowledge altered their views on credit. The financial education seminar used pre-and post evaluations to determine the impact of the seminar. Although, the seminar was limited to a single college, it provides some evidence on the efficacy of these seminars. The results indicate that a one and a one- half hour financial seminar was effective in enhancing students' overall financial knowledge, positive and responsible attitudes, and their intentions to practice responsible financial decision-making in the future. The results also suggest that

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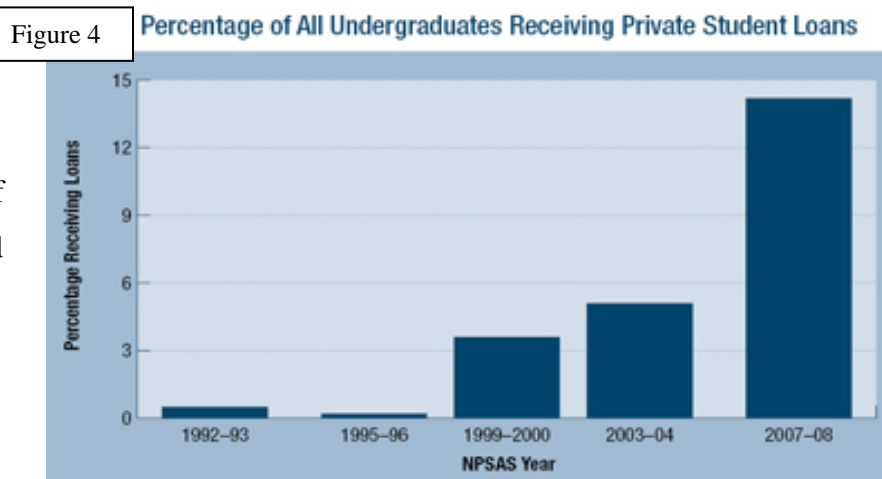
this type of seminar format may be more convenient and accessible to more college students than a semester long course.

Student exposure to seminars similar to those of the Credit Wise Cats is important for a variety of reasons. First of all, undergraduate students begin college life with little financial knowledge, but have easy access to credit cards. (Borden, Lee, Serido, & Collins, 2007). Financial institutions have taken advantage of this because they know that college students are an “immediate source of revenue and...a way to establish brand-loyalty throughout adulthood” (Amato-McCoy, 2006). This can be quite harmful to college students, who don’t realize the short-term impact of credit card use (Borden, et.al, 2007). For example, students are unlikely to be aware of the fees “or the penalties applied for failure to live up to terms of use” (Joo et.al, 2003). They are also unlikely to consider the long-term effects bad credit behavior can have, including several years of financial debt, low credit scores that hinder future plans, and even personal bankruptcy if credit card use becomes out of control (Holub 2002; Roberts and Jones 2001). Many students are also unaware, for example, that poor credit history stays with a person for an average of seven years, which can be detrimental for any plans to buy a house or purchase a car. Additionally, Norton (1993) found that “it is becoming more popular for people who do not have adequate cash available to use outstanding credit balances and think they will be able to pay the balance back later” (Borden, et.al, 2007). The fact that individuals have positive attitudes towards credit cards and are using them without being able to pay the balance shows just how little people realize the serious financial difficulties they could face as a result.

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College students upon graduation are typically overwhelmed, as they face an “accumulation of student loans, credit card debt, and lack of financial planning for the future” (Borden, et.al, 2007). *Figure 4*



Source: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Survey (1993-2008). Author analysis with Undergraduate Data Analysis System.

demonstrates that the number of students relying on loans to pay for their education has increased over the last decade. Therefore, it is vitally important for educators to assist college students in learning the skills to effectively manage money, such as reviewing bank and credit card statements, budgeting, controlled spending, and financial record keeping. They should also acquire skills for planning for taxes, insurance, investment, retirement, and real estate issues. (Borden, et.al, 2007) Peng et.al (2007) found that the information presented through programs like Credit Wise Cats and personal finance classes had an impact on college students in that they retained higher investment knowledge. Peng also found, however, that financial education through high school classes did not result in higher investment knowledge. Perhaps this is because “college students are particularly receptive to financial education because of their increased personal financial responsibility” (Borden, et.al, 2007). Therefore, it is important to educate college students financially because they have increased levels of financial responsibilities.

The Credit Wise Cats ninety minute seminar proved to be effective in enhancing students’ financial attitudes and knowledge, as well as their intentions of engaging in more responsible credit behavior. Specifically, results showed that after having attended this seminar, “students reported significant changes in their intentions to limit their use of credit cards and to manage their finances in more beneficial ways” (Borden, et.al, 2007). Additionally, these results prove that the seminar format can be effective, since college students have some of the busiest schedules with high academic demands. Therefore, “it may be easier for college students to fit

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a series of brief financial seminars into their schedule rather than a semester-long course” (Borden, et.al, 2007). Although including required or elective financial education courses in a university’s curriculum may also be effective, academic pressures and budget constraints make this probative. As a result, one effective solution to improving students’ financial knowledge and attitudes towards credit could be to have “seminars or workshops that target specific financial topics” (Borden, et.al 2007).

For years, credit card companies targeted college students as potential customers and bombarded them with advertising incentives to sign up for different cards. This greatly contributed to the circulation of credit cards over the past decade. More recently, however, consumer protection issues have moved to the forefront. For instance, Senate Banking Chairman Christopher Dodd (D, Conn.) recently passed new legislation that freezes credit cards rates until new credit card laws take effect in February 2010, with some provisions phasing in August 2009. This, however, wouldn’t apply to card issuers with a credit card circulation of less than two million or to gift-card issuers (Holzer and Lynch, 2009). Since August 2009, credit card issuers were prohibited from raising interest rates without due notice. Congressmen Barney Frank (D, Mass.) believes that “raising rates retroactively on consumers who carry a balance and have paid their bills on time is the ‘single unfairest economic transaction I can think of that doesn’t involve a pistol” (Holzer and Lynch, 2009). In addition, card issuers “must give borrowers 45 days’ notice before raising rates on new and existing balances or changing any significant card terms” (Holzer and Lynch, 2009). To further benefit consumers, they can opt out by paying off the balance over time at the original rate” (Holzer and Lynch, 2009).

In February 2010, the remaining major provisions of the CARD Act become effective. These provisions include that the credit card company cannot consider the payment as late unless the bill was sent 21 days before the due date and ban the company’s ability to raise rates unless the cardholder is at least 60 days late making a payment (Holzer and Lynch, 2009). If however, the cardholder pays the bills on time for six months, then the original interest rate must be restored. In addition, lenders will be required to proportionally allocate payments

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among balances carrying different interest rates; or “they can credit payments entirely to the balance that carries the highest rate” (Holzer and Lynch, 2009). Also, credit card issuers cannot offer gifts to college students who agree to fill out credit card applications, and marketing to college students will be very limited. Finally, a person must be 21 years old to obtain a credit card and show proof of payments. If a person is under 21, he/she will need someone who can make payments to co-sign for them. These new laws could be good news for college students struggling to control and manage their debt, but only time will tell what impact the laws will have.

Overall, financial education and retention among young adults needs to be improved so they can use this information when making financial decisions throughout their lives. Although steps have been taken to improve financial literacy for the general public, as well as for high school students and college students, more needs to be done. Furthermore, we need to better gauge the effectiveness of the financial literacy programs. While some studies have shown improvements in students’ attitudes and the intentions to behave more responsibly, there is little information available as to whether or not these would carry over into actual behaviors. Lastly, some evidence suggests that high school students may receive financial training, but they often don’t use financial knowledge when making credit decisions as college students.

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METHODOLOGY

This study employs multiple discriminant analysis (MDA) to explore whether financial literacy programs implemented in high school have a significant impact on the financial decisions made by college students. Results show that although the correlation is weak, students with high school training are less likely to engage in poor credit management behavior. This association, however, is stronger when students viewed their training as useful. The remainder of this section discusses the methodology, provides descriptive statistics, and empirical results.

Discriminant Analysis

Multiple discriminant analysis is a classification technique in which distinctions between two or more categories of cases are explored. The classifications are made by linear combinations of variables. The variables “discriminate” between groups of cases. They can be used to predict which group a case will fall into, based on the variables’ values. Specifically, discriminant analysis is used to evaluate relationships between a non-metric dependent variable and metric independent variables. Discriminant analysis attempts to use the independent variables to distinguish among the categories of the dependent variable. A discriminant model is useful depending on its ability to predict the known categories of the dependent variable, known as its accuracy rate.

Discriminant Analysis scoring works by creating a new variable, known as the discriminant function score. This is used to predict the group a case belongs to. To find the discriminant function score, the coefficients for the independent variables that maximize the measure distance between the groups defined by the dependent variable are computed. In the discriminant function, the independent variables are multiplied by coefficients and summed to produce a Z-score, which is similar to a regression analysis.

The discriminant functions can be thought of as boundaries that separate the groups, and the discriminate scores are standardized. This means that if the score falls to the less than zero side, it belongs to one group; if the score falls to the greater than zero side, then it belongs to the other group. If the discriminant function can distinguish among the groups, then it has a

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strong relationship to at least one of the independent variables. To interpret the relationship between the independent and dependent variables, one can think of it in the following way: Cases in group 1 tended to have higher scores on Variable A than cases in group 2. Although this sounds simple, the relationship operates through the discriminant functions, rather than a direct relationship. The scores of the discriminant functions are based on the values of the independent variables that are multiplied by the function coefficients.

In order to interpret the relationships between the independent and dependent variable, one first needs to identify how the discriminant functions separate the groups. Then, one can look at what role the independent variable has for each function. The "Functions at Group Centroids" table found in SPSS specifies which groups are separated by which functions. A second table in SPSS, known as the "Structure Matrix" identifies the correlation between each function and each variable. This allows one to know which variables to interpret for each function. The stepwise discriminant analysis, which was used in this study, is one kind of method that involves putting the independent variables into the discriminant function one at a time on the basis of how strong their discriminatory power is. The step-wise method takes the independent variables that met the statistical test for inclusion in the analysis. This particular method is practical when the analyst wants to include many independent variables in the function.

After completing the first stage of deriving the discriminant functions, the next stage is to classify the cases. The classification accuracy is used to determine the usefulness of the discriminant model. The classification accuracy compares predicted group placement based on the discriminant model to the actual, known group placement, which is the value for the dependent variable. The better the accuracy rate, the more useful the discriminant analysis is. With multivariate analysis, the number classified as correct, or the hit ratio, is similar to regression's R^2 . If the test indicates that the function discriminates significantly, then it had good classification accuracy, and is thus, more useful. (Pr. Alan Olinsky, Math Department, Bryant University)

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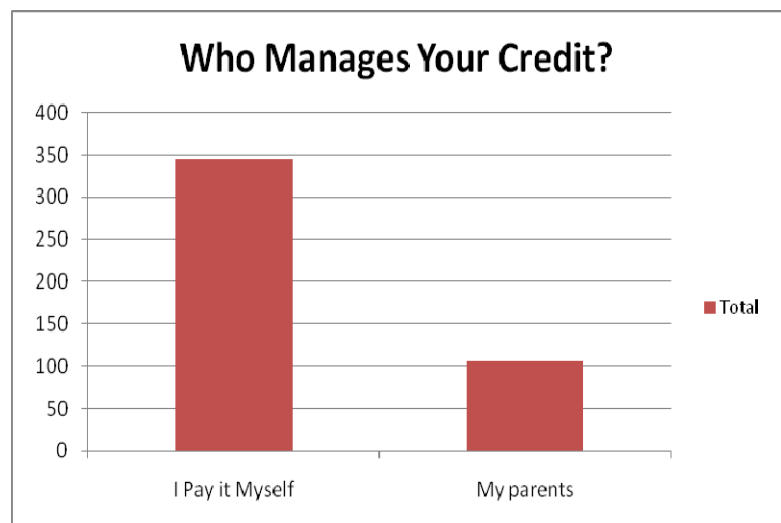
Procedure

For this study, 3,200 Bryant University undergraduates received a survey questionnaire consisting of 27 questions. Of those that received the survey, 882 students participated. Of that number, 452 had at least one credit card. As seen below, 345 students reported that they manage their credit themselves; while 107 indicated that their parents paid their credit card bills. Participants were 44.8% male and 55.16% female.

Data Table 1

Who manages/pays your credit card payments?	
Who manages your payments?	Total
I Pay it Myself	345
My parents	107
Grand Total	452

Figure 5



The purpose of this study was to determine the factors that contributed to poor credit behavior in college. Examples of credit behavior included how many credit cards a person had, how they make the payments, (i.e. making minimum payments), having late fees, and more. (See Appendix A for the Survey) In addition, questions about high school financial literacy training were asked to determine if what was learned, if anything, has impacted credit management behavior in college. Other questions were asked to determine one’s financial literacy regarding credit, such as knowing one’s FICO score and what that number indicated regarding risk. The survey questions were designed based on similar survey questions from previous studies mentioned in the literature review. (Mandell and Klein, 2007)

After the survey was completed, data was exported into excel and formatted appropriately in order to use SPSS and do the step-wise discriminant analysis. In my study, bad credit behavior is the dependent variable in the step-wise discriminant analysis, with a code of 1 for

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yes- has poor credit management behavior, and 0 for no- does not have poor credit management behavior. The raw data had to be coded as such in the excel file. Poor credit behavior can have a number of triggers (multiple credit cards, making only minimum payments, taking cash advances, late fees, over limit fees, and increases in interest rates).

Much of the other information that I gather in the survey is used as independent variables. These included year, gender, and major. A student's gender was coded a 1 for males and a 0 for females because it was predicted that males would display worse credit management than females, a hypothesis that was not supported by the data. A student's major was coded as being either a 1 for "Quantitative" or a 0 for "Non-Quantitative." This was because I predicted that more analytical and quantitative students would have less credit problems. Another independent variable was if a student took Financial Management, which is a class required at Bryant University for all students. A further independent variable was whether students had attended a credit management seminar presented by Finance Professor Peter Nigro. Additional independent variables were if students had financial training in high school, as well as how useful they viewed that training to be. Lastly, independent variables also included questions aimed at financial literacy regarding credit cards and FICO scores. Please see Data Table 2 "Structure Matrix" for the independent variables and their functions. Once the data was coded correctly, SPSS was used to run the step-wise discriminant analysis.

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Data Table 2

Structure Matrix

	Function
	1
Year	.924
FM ^a	.581
Nigro Seminar ^a	-.344
Quant major	-.333
Usefulness of HS Training ^a	-.096
Gender ^a	-.070
Literacy - Credit card ^a	.024
HS Training ^a	-.020
Literacy -FICO ^a	-.012

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
 Variables ordered by absolute size of correlation within function.

a. This variable not used in the analysis.

RESULTS

The results from this study proved that some of my predictions were true, while others were quite interesting and unexpected. The step-wise discriminant analysis included Quant Major and Year in the statistical test because these two independent variables proved to have the strongest relationship with the dependent variable of poor credit behavior. (Please see Data Table 3) As you can see, Quant majors, which included Accounting, Finance, Financial Services, and Actuarial Math, had a negative coefficient. This means that Quant majors were less likely to have credit problems, which is consistent with what was predicted. On the other hand, Year had a positive coefficient, which means that the more senior in year a student was, the more credit problems that person displayed. One might think that a younger student would have credit problems because they are less mature and know less about finances. However, I

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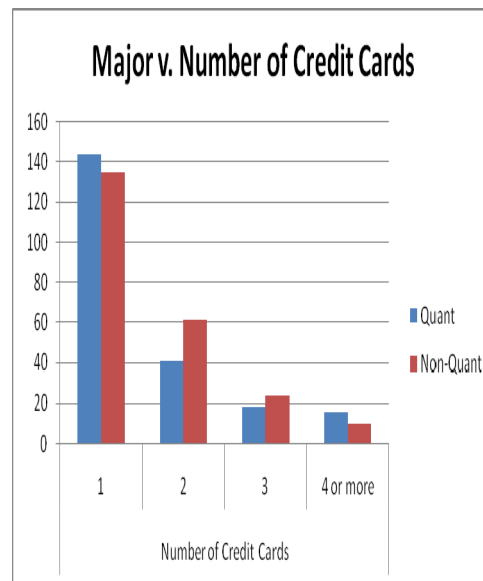
believe that older students displayed more credit problems because they had more time over the 4 years to use, and unfortunately abuse, credit. Please refer to Figures 6 and 7 respectively for results on Quant Major and Year.

Data Table 3: Canonical Discriminant Function Coefficients

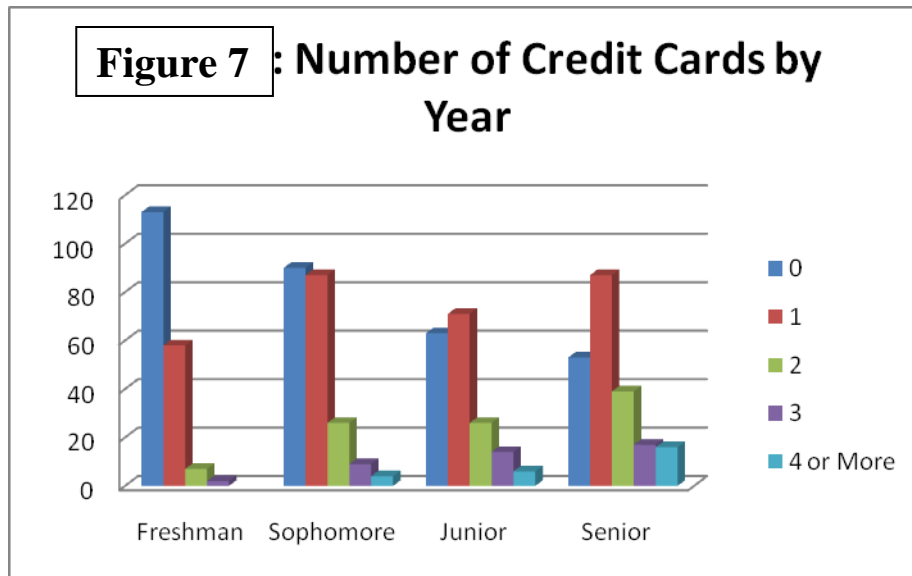
	Function
	1
Quant major	-.767
Year	.947
(Constant)	-2.361

Unstandardized coefficients

Figure 6:



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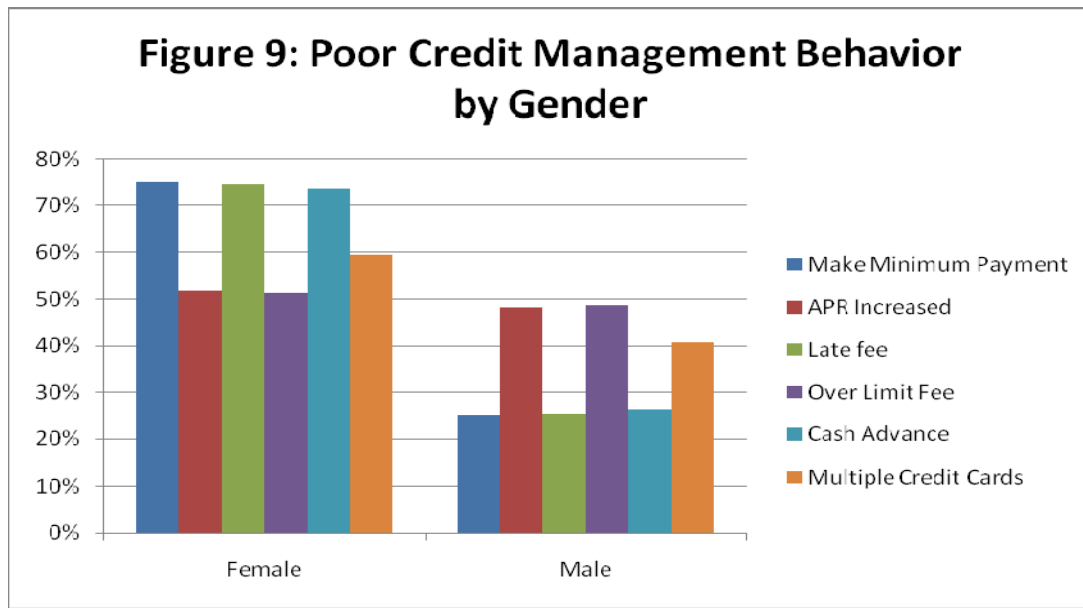
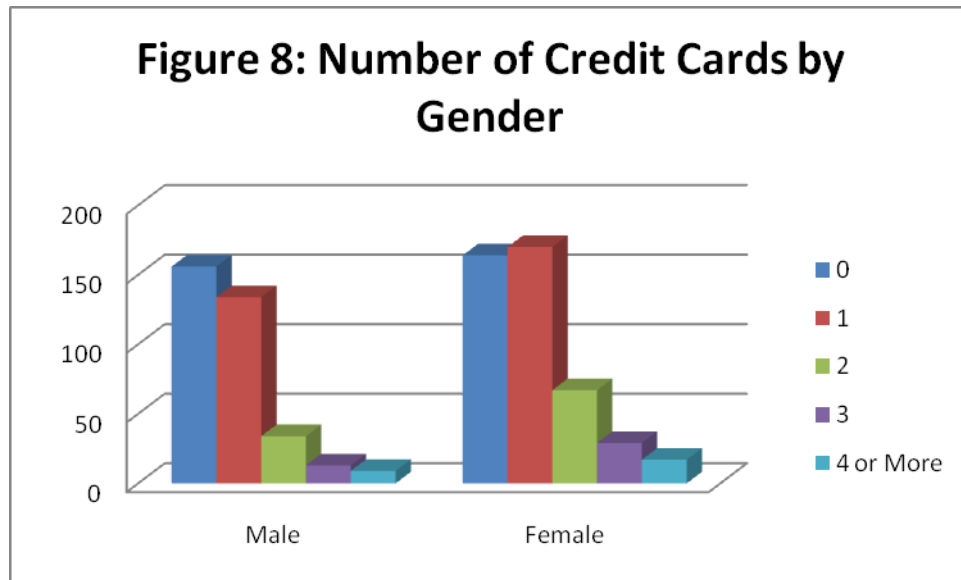
As you can see in Figure 7 above, the proportion of students without a credit card drops monotonically as students progress from freshmen to seniors. In addition, seniors were much more likely to have multiple credit cards. Looking at this visual evidence provides support for the result that this variable was a significant discriminating factor.

Regarding gender, I predicted that males would display poor credit behavior, which is why they were coded as a 1, as mentioned previously. However, if you refer to Data Table 4 and Figure 8 below, you will see that females actually had more credit cards than males, which was an indicator of poor credit behavior. In fact, if you refer to Data Table 5 and Figure 9, you will also see that overall, females indicated more actions that were designated as poor credit behaviors, especially incurring late fees. Although more females participated in the study, the results and proportions are still enlightening and rather interesting.

Data Table 4: Number of Credit Cards by Gender

	0	1	2	3	4 or More	Total
Male	156	134	34	13	9	346
Female	164	170	67	29	17	447
Total	320	304	101	42	26	793

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Table 5: Poor Credit Behavior by Gender

	Make Minimum Payment	APR Increased	Late fee	Over Limit Fee	Cash Advance	Multiple Credit Cards
Female	75%	52%	75%	51%	74%	59%
Male	25%	48%	25%	49%	26%	41%

Results also revealed the major reasons that students use their credit cards. On average, I unexpectedly found that both males and females ranked “To Establish Credit” as their number one reason for using their credit cards, followed by “Convenience” coming in second. I predicted that convenience would be the number one reason based on previous literature, but the study shows that this actually wasn’t the case. This indicates that students realize the importance of establishing good credit history, especially when we live in a society where companies look at candidates’ credit scores as a deciding factor in hiring. (See Data Table 6)

Data Table 6							
Gender	Avg Convenience	Est Credit	Impulse Buying	OnLine Shop	Vaca.	Emerg	Avg Other
Male	1.5314	1.4393	2.7406	2.1548	2.8368	2.0460	2.0000
Female	1.7232	1.3810	2.9048	2.3571	3.0119	2.1845	1.9196
Grand Total	1.6435	1.4052	2.8365	2.2730	2.9391	2.1270	1.9530

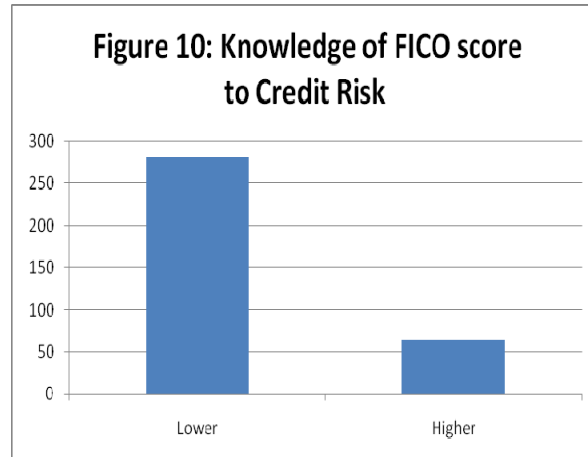
Rank Male	2	1	6	5	7	4	3
Rank Female	2	1	6	5	7	4	3

The results demonstrating students’ financial literacy were also interesting. When asked if a higher FICO score indicated a lower or higher risk, the results in the discriminant analysis show that there was a negative correlation. This means that students knew that a higher FICO score meant there was a lower risk, indicating that they were less likely to have poor credit

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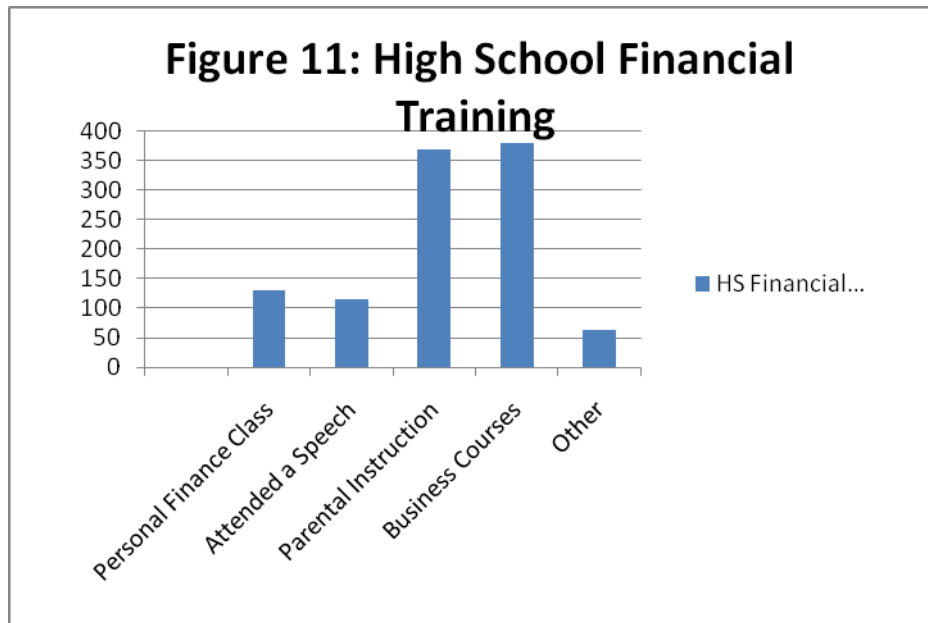
behavior. Please refer to Data Table 7 and Figure 10 for further information. These findings indicate that students understand the meaning behind a FICO score, displaying literacy on this subject.

Data Table 7	
Knowledge of FICO score	Total
Lower	281
Higher	64
Grand Total	345



Other findings from the discriminant analysis reveal that financial training in high school was negatively correlated; meaning that if students had financial training in high school, and they found that training to be useful, they were less likely to have poor credit behavior. While this is important to note, the independent variable of “usefulness of high school financial training” was not part of the final model. Students who did not find the financial training in high school useful most likely either forgot the information they were given or didn’t bother to pay attention at the time because they didn’t feel it was relevant to their lives. Data Table 8 and Figure 11 reveal that the most helpful types of financial training that students received in high school were parental instruction and business classes. Perhaps if students were required to take basic business classes in high school, they would have good credit behaviors in the future.

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Data Table 8: HS Financial Training

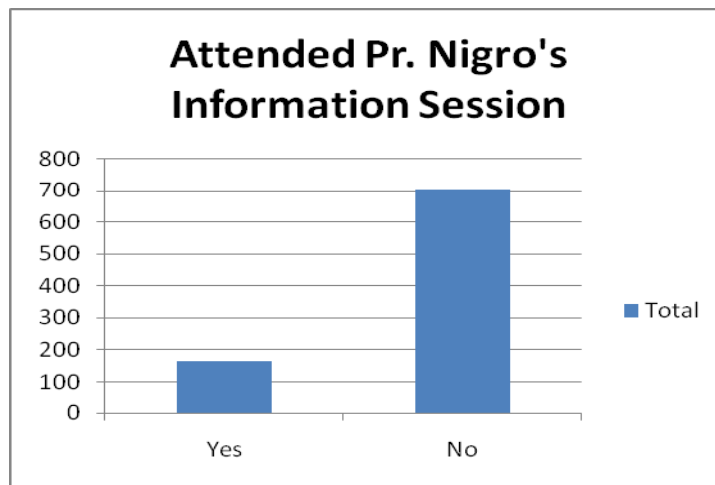
Personal Finance Class	131
Attended a Speech	115
Parental Instruction	369
Business Courses	379
Other	63
Total	1,057

As mentioned throughout this paper, Finance Professor Peter Nigro gives an information session several times throughout each semester to freshmen students at Bryant University. This one hour long presentation, called “Show me the Money: College Students and Credit Cards,” addresses several important issues including, budgeting, what to look for in a credit card, how to effectively manage credit, and how to avoid debt. This was one another one of the independent variables that showed a negative correlation in the discriminant analysis. Therefore, students that attended Pr. Nigro’s information session were less likely to have poor credit behavior. However, Figure 12 and Data Table 9 show that only 163 students attended this presentation. Nonetheless, those that did attend seemed to have benefitted from in it that they have less credit problems. Conceivably, if all Bryant freshmen were required to attend this presentation, evidence indicates that these students would have less credit problems.

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Undoubtedly, high school seniors are not that much different from college freshmen. Perhaps college freshmen find this kind of training more effective than they did as high school students because they are away from home for the first time, and are beginning to realize the importance of money management. Additionally, college freshman are more likely to view this topic as being more relevant to their lives, which may be another reason why this type of training has proven to be effective. As a result, presentations similar to those of Professor Nigro’s should be required of all students.

Figure 12



Data Table 9	
Have you attended Pr. Nigro's Info Session?	Total
Yes	163
No	704
Grand Total	867

In my sample of 345 college students that managed their own credit, 60% were identified as using poor credit management behavior. The stepwise MDA procedure identified two variables that were best at discriminating between good and bad credit management behavior. Table 10 is a summary of the classification results of my study. As you can see, 85.8% of credit problems were classified correctly, while only 36.8% of those without credit problems

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were. Overall 65.1% were correctly classified. Clearly, this indicates that the classification accuracy was highly significant, making this multivariate analysis quite useful.

Data Table 10: Classification Results^{b,c}

	Credit Behavior	Predicted Group Membership		Total	
		0	1		
Original	Count	0	53	144	
		1	28	197	
	%	0	36.8	63.2	100.0
		1	14.2	85.8	100.0
Cross-validated ^a	Count	0	53	144	
		1	28	197	
	%	0	36.8	63.2	100.0
		1	14.2	85.8	100.0

a. Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by the functions derived from all cases other than that case.

b. 65.1% of original grouped cases correctly classified.

c. 65.1% of cross-validated grouped cases correctly classified.

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CONCLUSION

In conclusion, this paper provides research suggesting that financial education should begin in high school so that young adults can effectively manage credit during the college years. This study assesses both college students' financial knowledge, and their credit management practices. Specifically, it examines whether Bryant University students retain and use the financial training from high school when making financial decisions and managing credit. The findings from this study illustrate that almost 75% of the 345 students that manage their own credit in college had received financial training in high school. Although this training is negatively correlated with poor credit management behavior in college, the association is not strong. Furthermore, this study suggests that even with additional financial literacy training available in college, almost 60% of these students demonstrate poor credit management behavior. This study suggests that freshmen college students should be required to attend a credit management information seminar, similar to Peter Nigro's one hour seminar at Bryant University, because the discriminant analysis shows that those who attend have less credit problems. As a result, this study suggests that young people need to improve their credit management skills by setting budgets and employing good credit management techniques. In the future, the multivariate discriminant analysis used in this study should be tested on a new sample.

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APPENDICES

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Appendix A – Survey

Honors Thesis Survey: Please take a few minutes to answer the following questions regarding credit behavior. Thank you for your time.

1. Gender
 - Male
 - Female

2. What is your age?

3. What is your Major?
 - Accounting
 - Computer Information Systems
 - Entrepreneurship
 - Finance
 - Financial Services
 - Management
 - Marketing
 - Actuarial Math
 - Other

4. What year are you?
 - Freshman
 - Sophomore
 - Junior
 - Senior

5. Have you ever attended Peter Nigro’s information session on managing credit, “Show me the Money: College Students and Credit Cards”?

Yes

No

6. Have you taken Financial Management, FIN201?
Yes

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No

7. Have you received any financial training in high school? Choose all that apply. If None, skip to question 8.

- Took a Personal Finance class
- Attended a speech by a guest lecturer discussing business practices
- Taught the importance of financial practices by your parents
- Took business related courses
- Other _____

8. The financial literacy training received in high school has been very helpful to me in managing credit as a college student .

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

9. Do you have a job during the school year?

Yes

No

10. How many hours do you work each week?

0

5-10

10-25

Greater than 25

11. Do you have an auto loan?

Yes

No

12. If yes, who makes those payments? If no, proceed to the next question.

I make the payments

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My parents

Other _____

13. When getting a credit card, how important do you think it is to find a credit card with no annual fee and a low interest rate?

Very Important

Somewhat Important

Not important - those things don't matter as long as you pay the full amounts each time.

14. Do you have a credit card?

Yes

No- if no, thank you for your time. You need not continue.

15. At what age did you receive your first credit card?

- Under 17
- 18-20
- 21 or older

16. How many credit cards do you own?

- 1
- 2
- 3
- 4 or more

17. What is the average limit on your credit card (s)?

- \$250
- \$500
- \$1,000- \$3,000
- Greater than \$3,000
- I don't know

18. What are the main reasons you use your credit card(s)? Please rank 1-6, 1 being the main reason.

- Convenience
- Establish credit
- Impulse Buying
- Online Shopping

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- Pay for vacations
- Emergencies only
- Other_____

19. Who manages/pays your credit card bills?

I pay it myself

My parents do- if so, thank you for your time. You need not continue.

20. How do you pay your credit card bills?

- I pay them in full
- I pay between the minimum and the full amount
- I pay the minimum payment

21. Do you keep copies of charge slips and make sure they reconcile with the amounts on your monthly bills?

Always

Usually

Sometimes

Never

22. Do you know your credit or FICO score?

Yes

No

23. Does a higher FICO score indicate lower or higher risk?

Higher

Lower

24. Have you ever been charged a late fee?

Yes

No

I don't know

25. Have you ever been charged an over limit fee?

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Yes
No
I don't know.

26. Has the credit card company ever changed the APR on your credit card?

Yes, they increased it
Yes, they decreased it
No
I don't know

27. Have you ever taken a cash advance on your credit card?

Yes

No

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