Retirement Education: A Necessity for Today's College Students

Jeffrey H. Siwik
Advisor: Robert Beaves

Abstract

Retirement, although commonplace in all societies, requires significant planning in order to be successful. Once retired, a person no longer has a stable source of income. Workers need to prepare themselves well for their post-working life, and that starts with education. When one relates this conclusion with a basic investment mindset, education programs should begin in the classrooms of colleges and universities throughout the United States. This paper analyzes the literature on basic retirement philosophies, the problems with retirement today, and the retirement education programs available. Throughout the research, education programs were consistently deemed helpful in preparing people for retirement and raising confidence levels. A study was then conducted on the campus of a small, private university in the northeast United States. On two separate occasions, students were offered access to a short retirement education seminar geared specifically toward college aged students. Surveys were taken before and after the talk to gauge the change in retirement awareness and readiness. The study showed that overall, students do in fact understand the importance of saving for retirement, and even prior to the seminar, most seriously considered saving right out of college. After the seminar in the post-surveys, both retirement confidence and willingness to save increased significantly. Due to compounding interest, starting to save early makes a dramatic difference in terms of contribution percentages all of which suggest that brief retirement seminars should be offered at both private and public universities throughout the country. Although this study does not follow the participants into the working world nor track their saving progress in the future, retirement education in school could potentially reduce America's retirement crisis.

Introduction

Whenever the media uses the word “crisis,” one’s mind immediately creates pictures of explosions, gun shots, or natural disasters, coupled with a massive amount of death and suffering. The year 2013 witnessed such crises as the fatal Asiana Airlines crash, the Rana Plaza collapse, the Boston Marathon bombing, and the Philippine Typhoon to name a few. These unfortunate headlines grab the attention and sorrows of every viewer in America from coast to coast. Relief funds almost immediately spring up online to which people are quick to donate money and other services. However, the year 2013 also witnessed the continuation of yet another, much quieter crisis; one that did not attract the donations of those with deep pockets or hearts. For the past several years, the United States has been suffering through a retirement crisis.

According to Merriam-Webster, a “crisis” can be defined as “an unstable or crucial time or state of affairs in which a decisive change is impending” (2014). In this case, bystanders turn their heads when they hear that 49 percent of respondents to a 2013 Employee Benefits Research Institute (EBRI) survey marked that they were “Not too” or “Not at all” prepared for their retirement (Employee Benefit Research Institute and Mathew Greenwald & Associates, 2013). However, this type of crisis, or period of instability or danger, does not draw mass media attention because it is not captivating enough to hold a large audience. Today’s seemingly complicated financial environment requires a high level of individual financial literacy to ensure a successful retirement is established as the norm. This has changed from past decades for several reasons. Many employers have switched away from defined benefit plans and to optional defined contribution plans which ultimately places more responsibility on the individual. Financial services and risks have become more intricate. After the recession, young workers have lost faith in financial markets and refuse to invest money due to fear. Baby boomers and increased longevity are putting strain on the Social Security trust fund. All of these complications coupled with a decreasing financial literacy and retirement awareness makes for the perfect storm of problems.

The purpose of this study was to benchmark college students' (of varying years and majors) retirement planning awareness and preparedness and then compare those attitudes to the same group after a brief, thirty minute retirement presentation geared specifically toward college students. The seminar was delivered on two separate occasions: once open to the public for the students of the campus (advertised by flyers and word of mouth), which attracted younger students and varying majors and once to the university's "Retirement and Estate Planning" course, which was comprised of upper-class, business majors. This gave the study a wide audience, from people with absolutely no finance background to some of the university's brightest money managers. The experiment yielded several important conclusions. First, business students have a better, general understanding of retirement and money saving topics and a higher willingness to take control of their financial situation than do non-business majors. Second, college students do have the will to save for retirement immediately, but possibly lack the knowledge or understanding on how or when to start. Finally, retirement awareness and preparation levels can be increased by a short presentation targeting a specific age group. My results provide support for brief, semi-annual retirement seminars to be offered on college campuses open to students of all years and majors.

The remainder of the article is organized as follows. In the first section, any existing, relevant literature on the topic is discussed and organized by headings. Then the current study, including the rationale, hypotheses, procedure, instrumentation, and participants is explained.

The results follow after that with conclusions, shortfalls of the study, and potential areas for future research.

Literature Review

Declining Confidence in All Age Groups

For more than two decades, the United States retirement savings rates have been declining and people are finding themselves less and less prepared for the future (Ellen, Wiener, & Fitzgerald, 2012). In the 2013 EBRI survey referenced above, confidence has decreased by 69 percent since 2007. The Transamerica Center for Retirement Studies found similar results. In its 2013 survey 45 percent failed to respond either “Somewhat” or “Very” confident in terms of retirement preparation. It did note however, that this represents a slight increase in confidence over 2012 but still below the levels of 2007. Concerns still exist for many workers about building a large enough nest egg. A minority percentage of only 42 percent believe the amount they are currently building will be large enough to retire (Transamerica Center for Retirement Studies, 2013).

Lastly, The Aegon Retirement Readiness Survey of 2013 took a different approach. Instead of simply asking participants how confident they felt, Aegon calculated an index score based on a series of questions related to planning and saving for retirement. Final scores were calculated on a scale of one to ten with ten being the most prepared. The report states, “A Low Index score suggests that a respondent will struggle to cope financially in retirement; a High score suggests he/she is on track for a comfortable retirement.” Sixty-six percent of those polled received a Low Index score (1-4), 29 percent received a Medium Index score (5-8), and the remaining 5 percent scored greater than 8 and achieved a High Index mark (The Aegon Retirement Readiness Survey, 2013). The results of all three of these different measures include employees of all ages, and as a result provide an accurate sense of the overall attitude of workers toward retirement. Still, valuable information for this specific purpose can be drawn when examining the attitudes of younger workers toward retirement, specifically ages 20-29. Aegon conducted a survey of 2,722 workers in this demographic. 59 percent believe they will be worse of financially in retirement than their parents. 27 percent believe that their funding shortfall will be large. Lastly and most shockingly, 57 percent believe that retirement saving is important but not a priority, and as a result, are not currently saving. This reveals the conclusion that young workers realize the need to save and have the ambition, but lack the ability in their minds due to such challenges as getting married and starting a family (The Young, Pragmatic and Penniless Generation, 2013). As a result, it is extremely important to boost these percentages. Retirement is something that everyone will face once in their lifetime. Educating the public, sooner than later and preferably at the college level is necessary to prevent struggles later in life.

Financial Illiteracy

Unfortunately, reviews and studies have revealed that a staggering number of households today are unable to make even the most basic economic decisions; this problem relates directly to the retirement issue (Lusardi & Mitchell, 2007). Munnell at al. (2008) conclude that most households have a “gut sense” of their financial situation but that 44 percent will be at risk in terms of their standard of living in retirement. Numerous other studies have confirmed that a significant proportion of Americans have a lack of financial literacy (for example, Bernheim 1998; Hilgert and Hogarth 2003). Regarding college students, previous studies have shown that this demographic has a low understanding of their personal situation as well. Helman and Paladino (2004) conclude that once a graduate accepts a full time job and realizes a steady paycheck, that person will prefer to spend more consistently than save to a retirement savings vehicle. The more recent 2013 Aegon study confirms that financial literacy is not increasing, with only 20 percent of respondents saying that they are "very able" to understand financial matters. Transamerica published their results: "Most workers indicate they know little about asset allocation as it relates to retirement- with one in three saying they know nothing about it" (Transamerica Center for Retirement Studies, 2013). While some states require financial courses in school, all universities should regard financial knowledge as a core learning component and be a requirement for graduation (Avard et all., 2005).

A Plan for Retirement

The traditional retirement plan used to guarantee a comfortable retirement relies on funding from three separate pillars: Social Security, an employer sponsored plan, and personal savings. It is generally recognized that relying too heavily on one source for income will lead to problems. Some plans for retirement recommends starting at age 21 and making early contributions to a 401(k) with other steps for ages 21-35 and 40-65 (Bennett Clark & Block, 2012). More specifically, computer models have been developed to project these inflation-adjusted stages of retirement (Michael & Murray, 2003). In reference to 401(k)s and a recent transition from defined benefit plans to defined contribution plans, the everyday worker will continue to take more risk upon themselves when managing their funds (Falzon, 2011).
The upside is, contrary to the popular belief that spending increases with age, studies have otherwise proved the opposite (Bernicke, 2005).

Aside from making the actual monetary contributions to a fund, most experts agree a broad plan is the essential first step. One case study proved that having estimated needed funds for retirement increased actual savings (Mayer, Zick, & Marsden, 2011). Others suggest looking at retirement from a different perspective by "retiring *to* something, not *from* something." It stresses the need to look at retirement in waves and not one giant leap (Jutting & Lieberman, 2012). Some authors have researched deeper to find certain trends in retirement planning. For example, males tend to view retirement as another stage in life compared to women who view a more whole-life perspective. The former leads to more retirement planning than the latter (Grace, Weaven, & Ross, 2010). Personality traits may also factor into monetary planning with some traits producing positive habits and some producing negative habits (Korhonen, 2011). The final variable could be occupation. Nurses for example have been shown through studies and surveys to need more planning (Blakely & Ribeiro, 2008) and those who own their own business, such as farmers, lack a sound retirement plan due to temptation to invest any money back into their business. Overall, the necessary monetary contributions in a variety of forms and a solid retirement plan will lead to the most successful retirement.

Problems Associated With Retirement

Retirement readiness can be defined as one's confidence and ability to maintain a comfortable retirement. Retirement readiness in the world is oftentimes simply measured by participation in a company's retirement plan ignoring the amount in the fund all together. As a result, without knowing it, many people are caught off guard when it comes time to retire (Workman 2012). Recently, the Government Accountability Office (GAO) released several trends about retirees in trouble. First, individuals over retirement age still depend on employment income for about a third of their money. Next, people are taking their earned Social Security benefits as early as possible. Last, people over sixty are starting to do away with annuities. The GAO stressed an immediate need for better financial decisions (Meredith, 2011). Currently, our government is faced with the problem of trying to provide sufficient retirement for those in need, multiplied with better mortality rates and an increasingly older population. Peter

Diamond, professor of economics at Massachusetts Institute of Technology, believes that the United States' Social Security trust fund will deplete by the year 2033. After that, everyone's benefits would be cut by 25 percent if nothing is done to counteract the outward flow of money (Wang, 2013). However, risks aren't only associated with Social Security. Employees saving for retirement in the long term in their own personal accounts face a series of risks as well. Market risk, longevity risk, depletion risk, inflation risk, cognitive risk, and health risks are just some of the more prevalent ones (Vernon, 2013). All of this coupled with individuals being unable to retire due to insufficient funds, leads to a lack of jobs for the next generation (Ntalianis & Wise, 2011).

Solutions for Retirement

The cause of this financial illiteracy may be the lack of workers taking advantage of a retirement education program at their workplace. Therefore, some places have even handed over their programs to the human resources department and added initiatives to boost attendance (Tulloch, 2010). With such low attendance, one author suggests employers automate enrollment and contributions into 401(k) accounts (Willett, 2008). Laziness may not be a factor, however. Data suggests low-income populations may not be given the same education opportunities middle and upper income households are. As a solution, social workers need to expand programs for youths and make them more readily available (Shobe & Sturm, 2007). Several similar nonprofit ventures have previously taken place in Japan and Sweden (Lusardi & Mitchell, 2007).

From those programs that have been successful in educating workers about their future, the findings are extremely consistent that people are better prepared. A 2005 review of the 2004 Retirement Confidence Survey found that those who estimated their needs prior to retirement as a result of education had abundant savings, higher confidence, higher household income, and even overall better health (Kim & Kwon, 2005). Other examinations of programs have also found the effectiveness of personal finance and retirement education in the office. A survey by the International Foundation of Employee Benefit Plans published that those who actively participate change their savings goals and attitudes toward retirement for the better (Krajnak, Burns, & Natchek, 2008). Hopefully successful education of the population will clear up common misconceptions regarding retirement in terms of cost and timing (Neal, 2004).

The Society of Actuaries has also addressed the retirement problem by releasing 11 decision briefs, such as how to retire, trade-offs, income, claiming Social Security benefits, and long-term health care financing (for a review see Rappaport, 2012). Still, most authors realize a strong retirement program has no potential without an equally strong education program and vice versa. The components of a strong program include options for enrollment, investment choices, contribution matches, and distributions during retirement. Likewise, the elements of a strong educational program include the topics covered, delivery methods, frequency, availability, and focus toward subgroups like women and minorities (Olsen & Whitman, 2007).

It seems there is a significant lack of practice in preparing students for retirement during their learning years in school however. Most articles address retirement education programs in the workplace, not college, where most other learning takes place. Some colleges do offer courses on broad financial education, which may touch on the subject. One survey benchmarked graduating students' retirement knowledge, motivation, and preparedness before and after taking a semester long Personal Risk Management and Insurance course. The percentage of business students that felt comfortable rose from 42.3 percent to 82 percent after completion (Power, Hobbs, & Ober, 2011). A similar study conducted in Texas also supports the results that students generally have little financial planning knowledge until enrolled in personal finance classes. This is partly because students learn how to manage others' funds and fail to recognize how to relate the information to their own personal life. However, this single investment course made a measureable difference in realizing the issue of retirement for scores on surveys nearly doubled from the beginning of the semester to the end (James, Hadley, & Balasundram, 2002). It was not noted that either of these classes were in fact a requirement for graduation. The selected university in this study offers a "Retirement and Estate Planning Class," although this is also a semester long class and doesn't focus on personal retirement planning but rather that for the intended purpose of helping clients[1].

Still, it appears that there is a gap in the literature about when the best time to educate about retirement is and what long-term effect thinking about retirement in college, prior to working, has on an individual. By following current trends and how retirement planning during the working years has a positive effect on savings, one can speculate that by starting earlier and allowing more time for investments to grow, retirement planning can be achieved much more efficiently.

Having researched several diverse colleges and universities in the Pittsburgh area, none outwardly advertise offering short, retirement education seminars for students. Due to different course requirements for different majors at different universities, semester-long retirement courses are not always ideal or even possible.

[1] According to the university's description of the course: "This course will focus on the fundamentals of retirement planning and estate planning. Students will be given detailed introduction to personal retirement plans and the tools available for helping clients attain retirement goals. This will require some discussion of Federal Income Tax law. Considerations and techniques for transferring wealth upon death will also be explained. Particular attention will be paid to the unified Federal Gift and Estate Tax laws."

The Current Study

Study Rationale

A graduating college student, with a mind honed to learn about the world around him, needs information regarding retirement. When it comes to financial preparation for anything, time is a huge factor. It is not possible to start investing too early, let alone when it is something your life depends on. As a result, the short-term goal of this study is to determine what effect a brief, retirement education seminar geared specifically for college students has on their retirement awareness, knowledge, and willingness to save for retirement immediately upon entering the workforce. The long-term goal of this research is to begin to implement retirement education programs in colleges and universities throughout the country; therefore, helping students with financial decisions and as a result, a comfortable post-working life.

Hypotheses

We hypothesized that the level of retirement awareness, knowledge, and confidence would be higher in the post-seminar surveys than the respondents' baseline answers. The information presented in the seminars, designed specifically for increasing college age students' retirement and financial literacy, attempted to target those expected areas of lacking knowledge. Further, we also hypothesized that the level of retirement knowledge would be higher for the purely business sample than that of the group that represented the general population of the university. The student's exposure in previous classes to basic investment concepts, such as diversification and the time value of money as well as retirement specific information should increase their attitude toward saving money for a post-working life.

Procedure

We offered brief, thirty minute retirement seminars to a diverse group of students on a selected private, Pennsylvania campus. The first presentation was open to any student on campus that was inclined to attend. All years and majors were encouraged to participate on the flyers. Days later, the second seminar was offered as a guest presentation in the university's "Retirement and Estate Planning" course. This allowed us to see not only the general results of educating college students on a short, small-scale, but also compare the effectiveness of business majors versus non-business majors. In both of the sessions, participating students filled out a pre-seminar survey, then listened to the seminar, then received and completed a post-seminar survey. All students that were present at the time of the distribution of surveys participated, and if a student failed to complete the pre-survey, they were excluded from the post seminar results.

Instrumentation

The exact same pre and post surveys were distributed to participants of both sessions for this study. The initial questions were designed to collect the demographics of the audience, gauge benchmark retirement knowledge, and beginning attitudes on saving. Because the seminars were open and voluntary as well as under strict time constraints, as researchers we had to keep the survey brief for the interest of those taking it. The first section of the survey asked about the audience's demographic information. Questions included class status, gender, and school attending in college (for this particular university options included the School of Business, School of Communications and Information Systems, School of Education and Social Sciences, School of Engineering, Mathematics, and Science, or the School of Nursing and Health Sciences). The next question was asked to gauge if the participant had any first hand retirement saving experience through past jobs or internships. It was asked, "Do you currently have any money invested in any of the following?” with some of the options being a 401(k), IRA, Mutual Funds, Individual Stocks, Insurances, Bonds, Annuities, CDs, or Other. For the sake of our results, only money invested in 401(k)s or IRAs will be considered first hand retirement saving experience. The third section consisted of four questions that asked subjects their attitudes on several matters on a scale from one to ten, with one being “Not at all” and ten acting as the opposite. For example, we asked students, “How educated do you feel in terms of retirement preparation and awareness?” For this question’s scale, students had the option to circle one for “Not at all,” ten for “Very educated,” or any number in between. Other questions were “Will you be likely to start saving for retirement immediately upon entering the workforce?”, “As a college student, how much time have you spent thinking about retirement?”, and “How nervous are you for retirement?” The final question served to compare the student’s outlook on retirement between the open class and the university’s business class. We asked, “What age do you hope to retire fully at?” to see if one group was more reasonable in their thinking, outlook, and perception of retirement than the other.

In reference to the post-seminar surveys, respondents were given similar questions with the intention of being able to monitor changes in attitudes toward retirement. This second instrument contained six questions, five that were based on the same scale from one to ten. The first asked on the scale how much more prepared do you feel toward retirement after listening to the short presentation. The second, similarly, asks if the participant’s awareness on the retirement issue has increased. Third and fourth, as researchers we asked for the audience’s opinions on if college students should be exposed to some retirement education or basic money management education and then if they believed the seminar presented worthwhile and pertinent information for college students. We could safely assume that if the responses for the fourth question were extremely low, it would mean that the presentation was not delivered in an effective manner and any results would then be inaccurate about the effectiveness of retirement seminars in general. For the final attitude question, participants were once again asked, “Will you be likely to start saving for retirement immediately upon entering the workforce?” Lastly, we provided a series of blank lines for any additional comments on the presentation to help improve any material that was too vague or too specific.

The final instrumentation used in the study was the PowerPoint seminar itself. The thirty minutes was broken down into the following categories: The importance of retirement preparation, the risks one may encounter, current available retirement saving vehicles, advice for the present and future, and finally a relevant example. The underlying approach to the seminar was to increase awareness by showing striking facts, with the hope that students would then continue research and learning themselves. We felt that this approach was more suited to a voluntary audience than an extreme in-depth look at savings tools. However, after the audiences’ attention was peaked, we then provided a reasonable amount of education and advice.

The introduction was important for the sake of giving students context for retirement preparation today. Pension reform that places more responsibility on the individual, the uncertain future of Social Security, better mortality, a more mobile workforce, and a volatile economy are all reasons that retirement education is more important today than ever before in the country’s history. Time was also stressed as an important factor to the students in the form of basic time value of money concepts. As stated above, the reports and statistics of declining confidence in the United Stated by the Employee Benefits Research Institute and Aegon were included in easy to understand graphics. Continuing to tug at the fear element of the audience, we proposed the risks researched by Vernon in his paper “The Next Evolution in Defined

Contribution Retirement Plan Design" (2013) such as market risk, longevity risk, depletion risk, inflation risk, cognitive risk, and health risks. Graphs were included for both longevity and depletion, so visual learning students could apply the information as well.

As important as we believed emotion was in this study, it would not have been applicable without some information on retirement saving options available to today's worker. The three pillars to saving were presented and explained (employer sponsored plan, private savings, and Social Security). For employer sponsored plans, the difference between defined benefit and defined contribution plans was taught, as well as how a defined contribution plan works, a typical company match, and the risk on the employee in this type. The presenter also explained how Individual Retirement Accounts (IRA) function and the main differences between traditional and Roth options. Lastly, students learned about Social Security, the problems associated with the trust fund today, some potential solutions, and general advice for delaying benefits.

The advice was not limited to Social Security. In fact, twelve pieces of advice split evenly between "What you should be doing right now" and "What you should do once you get your first job" gave the college students specific steps to put into action immediately. The first part focused on prepping the mind to learn to save money. Steps such as developing a habit of saving when you go out on a weekend, learning to budget, and becoming financially literate by routinely visiting financial websites should put students on a better path to preparing for retirement. Talking to your elders about retirement, making a plan to repay student debt, and researching potential employer's retirement plans were the final three steps before accepting a first job offer. Looking into the future, assuming the students enter the workforce after graduation, we suggested that they immediately start an emergency fund, contribute to a 401(k), start an IRA, calculate your retirement needs, resist cashing out your defined contribution plan when switching jobs, and finally stay up-to-date on retirement issues. The final aspect of the retirement seminars given in the study was a real life example with factors and assumptions based on the article, “Safe Savings Rates: A New Approach to Retirement Planning over the Life Cycle” by Wade Pfau (2011). In the study Dr. Pfau conducted, he calculated the safe savings rates based on different replacement rates, asset allocations, retirement phases, and accumulation phases. The accumulation phase was looked at from the view of age one starts saving for retirement for our purposes. Students were easily able to see the difference compound interest made in a saver’s funds for every ten years one waits the percentage of annual salary required to be saved doubled. The overall approach to the seminars was to increase knowledge by first boosting awareness through shocking statistics and facts.

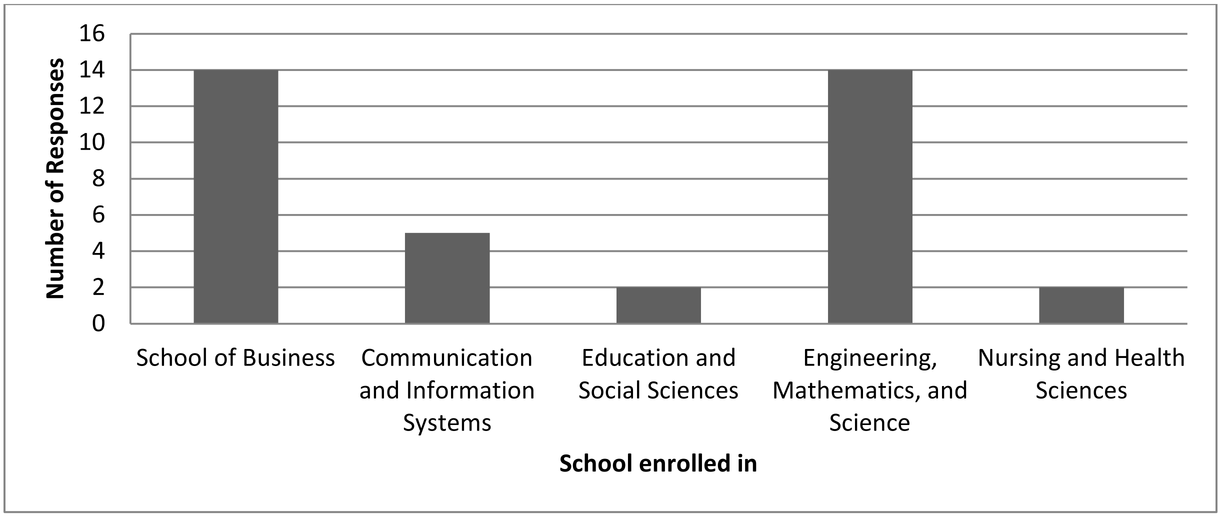
Participants

Table 1
Demographics

Seminar	% Female	% Male	% Freshman	% Sophomore	% Junior	% Senior
Open Presentation	35.1%	64.9%	8.1%	27.0%	29.7%	35.1%
R&E Planning Class	33.3%	66.7%	0.0%	0.0%	57.1%	42.9%

Chart 1

Demographics by major for open seminar



Results

Demographics

In total, 58 students were educated and surveyed in this study. Thirty-seven responded to the flyers and attended the seminar open to the university. Twenty-one students were enrolled and present at the time of the presentation in the business class. Demographic variable results for both educational groups are summarized in Table 1 in terms of percentages.

Both sections had similar attendance percentages by gender (two-thirds male and one-third female). The second result from the demographics was the positive relationship between year in school and percentage attended at the open seminar. Freshman had the smallest percentage, followed by sophomores, then juniors, and finally seniors with the largest percentage of the audience at over one-third. However, most strikingly were the demographics by major at the open presentation as shown in Chart 1. In total, students from the School of Business and the School of Engineering, Mathematics, and Sciences made up 28 of the 37 students in the audience or 75.7 percent. Students in fields heavy in money and mathematics appeared to have a higher desire to take control of their financial situation. Education and Social Sciences students were tied with students from Nursing and Health Sciences at the bottom as only two students from each of those major concentrations were present.

Benchmarking

Table 2
Benchmarks

Pre Survey Results - Open Seminar

1) What is your class status?

Freshman	Sophomore	Junior	Senior
3	10	11	13

2) Gender?

Male	Female
24	13

3) What school are you enrolled in?

School of Business	Communication and Information Systems	Education and Social Sciences	Engineering, Mathematics, and Science	Nursing and Health Sciences
14	5	2	14	2

4) Do you currently have any money invested in retirement accounts? (401(k) or IRA)

One or both	None
7	30

5) How educated do you feel you are in terms of retirement preparation and awareness?

1	2	3	4	5	6	7	8	9	10
7	10	6	3	4	3	2	2	0	0

6) Will you be likely to start saving for retirement immediately upon entering the workforce?

1	2	3	4	5	6	7	8	9	10
1	0	2	1	1	4	2	10	6	10

7) As a college student, how much time have you spent thinking about retirement?

1	2	3	4	5	6	7	8	9	10
10	10	7	3	2	1	2	1	0	1

8) How nervous are you for retirement?

1	2	3	4	5	6	7	8	9	10
4	5	8	7	5	3	4	0	0	1

9) At what age do you hope to retire fully at?

Under 50	50-60	61-70	70+	Never
6	16	15	0	0

Table 3
Benchmarks

Pre Survey Results - R&E Seminar

1) **What is your class status?**

Freshman	Sophomore	Junior	Senior
0	0	12	9

2) **Gender?**

Male	Female
14	7

3) **What school are you enrolled in?**

School of Business	Communication and Information Systems	Education and Social Sciences	Engineering, Mathematics, and Science	Nursing and Health Sciences
21	0	0	0	0

4) **Do you currently have any money invested in retirement accounts? (401(k) or IRA)**

One or both	None
2	19

5) **How educated do you feel you are in terms of retirement preparation and awareness?**

1	2	3	4	5	6	7	8	9	10
0	0	1	4	5	4	3	3	1	0

6) **Will you be likely to start saving for retirement immediately upon entering the workforce?**

1	2	3	4	5	6	7	8	9	10
0	0	0	2	1	3	0	2	3	10

7) **As a college student, how much time have you spent thinking about retirement?**

1	2	3	4	5	6	7	8	9	10
0	1	2	3	5	1	3	3	2	1

8) **How nervous are you for retirement?**

1	2	3	4	5	6	7	8	9	10
0	1	3	3	3	1	5	3	1	1

9) **At what age do you hope to retire fully at?**

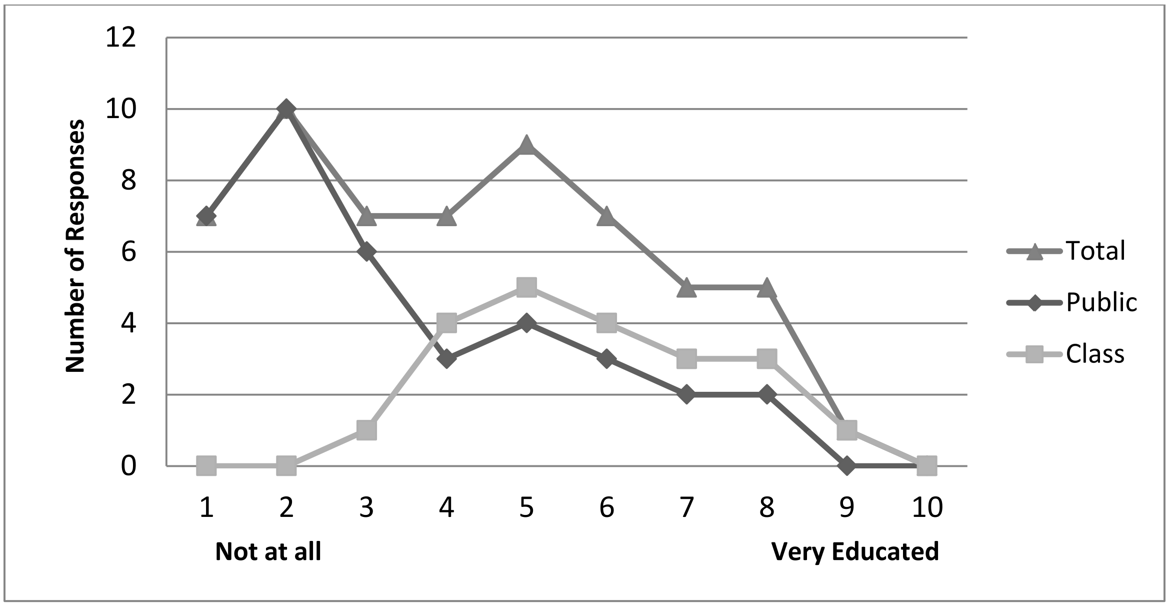
Under 50	50-60	61-70	70+	Never
0	6	14	1	0

As researchers we issued the pre-surveys, collected those responses prior to any formal retirement education, and recorded the data to benchmark starting retirement knowledge, awareness, and attitudes on savings topics. Analysis of the responses was both expected and surprising in different ways. First, it was expected that the averages from the sole business class were going to be higher than that of a general population as represented in the open seminar.

When comparing the responses of “How educated do you feel you are in terms of retirement preparation and awareness” in Table 2 and Table 3, the average for the business class was

Chart 2

Pre-seminar response to the question “How educated do you feel you are in terms of retirement preparation and awareness?”

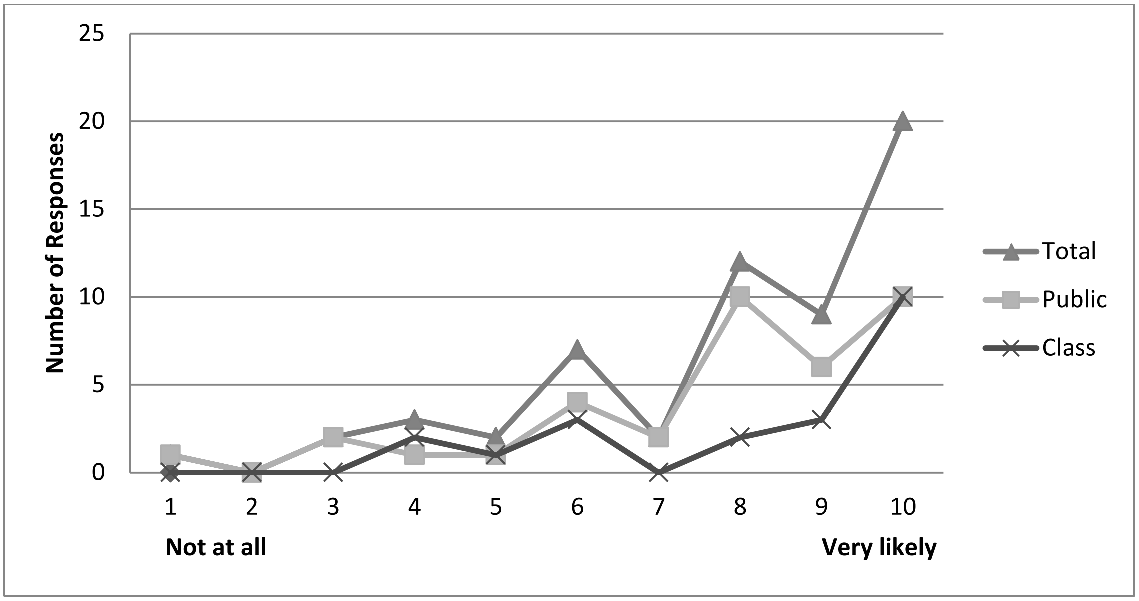


5.81 and for the open seminar was 3.38 as shown graphically in Chart 2. The probable explanation for the mid responses in the business class is their brief exposure to certain retirement terms, but they lack the knowledge of how to apply them to their own lives. The business class also had a more realistic view of retirement. For the open seminar, 59 percent of students hoped to retire before age 60 and 16 percent before age 50, while in the business class only 28 percent responded that way, with zero expecting to quit work before age 50.

However, what was surprising was the student’s willingness to immediately save for retirement right out of school. The expectation was that once entering the workforce, students would put a higher weight on purchasing new luxuries previously unattainable and starting a family than contributing to a retirement plan. When looking at Chart 3 though, one can immediately see an upward trend from not only the business students, but all college students as well. This is an extremely positive result, although there is still room for improvement.

Chart 3

Pre-seminar response to the question "Will you be likely to start saving for retirement immediately upon entering the workforce?"



Educational Treatment

Additional analysis was performed between the treatment surveys and the benchmark student responses to see how much, if any, improvement occurred after participants sat through the short education. The summarized results to the survey questions are displayed in Table 5 for the open class, Table 6 for the business class, and Table 7 for the combined responses of both. Significant improvements were observed when comparing the averages of the pre-surveys to those of the post-surveys.

First, in response to the question on retirement preparation given in both surveys, we saw a 71.6 percent increase in the average response when both classes were examined together (up to 7.31 from 4.26). The post-survey data for the question is represented in the column graph in Chart 4. An overwhelming percentage of new responses were located in the upper half

Table 6

Treatment

Post Survey Results - R&E Seminar

1) After listening to a brief presentation on retirement preparation for workers in their 20s, how much more prepared do you feel toward retirement?

1	2	3	4	5	6	7	8	9	10
0	1	1	0	0	3	8	7	1	0

2) Has the seminar increased your awareness on the retirement issue?

1	2	3	4	5	6	7	8	9	10
0	1	1	0	2	1	5	10	1	0

3) Do you feel that college students, prior to entering the workforce, should have some type of retirement and basic money management education?

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	1	4	2	14

4) Do you feel that the seminar presented worthwhile and important information for college students?

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	9	5	7

5) Will you be more likely to start saving for retirement immediately upon entering the workforce?

1	2	3	4	5	6	7	8	9	10
0	1	0	0	1	0	1	4	3	11

Table 5

Treatment

Post Survey Results - Open Seminar

1) After listening to a brief presentation on retirement preparation for workers in their 20s, how much more prepared do you feel toward retirement?

1	2	3	4	5	6	7	8	9	10
0	1	0	1	0	8	7	8	7	5

2) Has the seminar increased your awareness on the retirement issue?

1	2	3	4	5	6	7	8	9	10
0	1	0	0	0	2	4	9	9	12

3) Do you feel that college students, prior to entering the workforce, should have some type of retirement and basic money management education?

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	2	2	11	7	15

4) Do you feel that the seminar presented worthwhile and important information for college students?

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	4	7	11	15

5) Will you be more likely to start saving for retirement immediately upon entering the workforce?

1	2	3	4	5	6	7	8	9	10
0	0	1	0	2	1	1	4	4	24

Table 7
Treatment

Post Survey Results - Total

1) After listening to a brief presentation on retirement preparation for workers in their 20s, how much more prepared do you feel toward retirement?

1	2	3	4	5	6	7	8	9	10
0	2	1	1	0	11	15	15	8	5

2) Has the seminar increased your awareness on the retirement issue?

1	2	3	4	5	6	7	8	9	10
0	2	1	0	2	3	9	19	10	12

3) Do you feel that college students, prior to entering the workforce, should have some type of retirement and basic money management education?

1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	2	3	15	9	29

4) Do you feel that the seminar presented worthwhile and important information for college students?

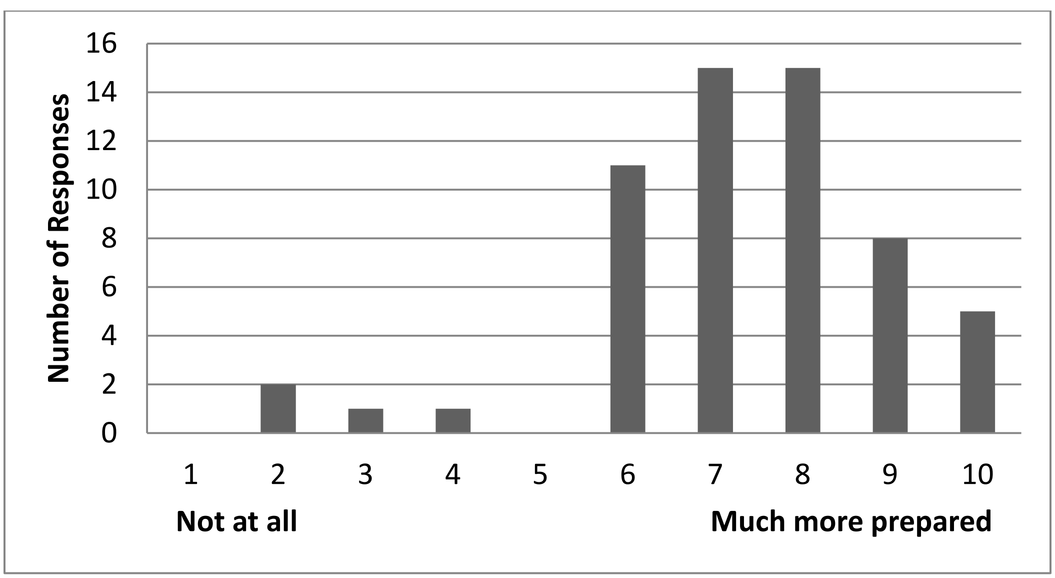
1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	4	16	16	22

5) Will you be more likely to start saving for retirement immediately upon entering the workforce?

1	2	3	4	5	6	7	8	9	10
0	1	1	0	3	1	2	8	7	35

Chart 4

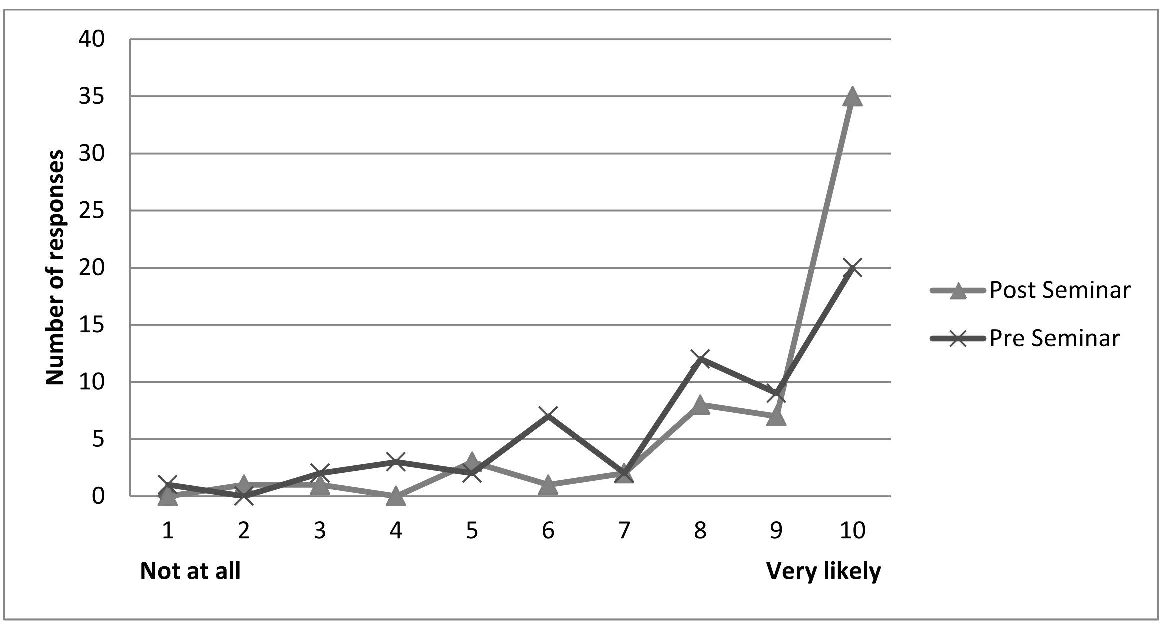
Post survey responses to the question: “After listening to a brief presentation on retirement preparation for workers in their 20s, how much more prepared do you feel toward retirement?”



of the scale, which proves that the seminar’s information was effective in educating students and increasing preparation and confidence. Awareness also dramatically improved according to the students’ responses in question number two. Although this question wasn’t directly asked before the presentation, responses take into account the change in awareness due to the phrasing of the question. While the initial attitudes toward saving immediately out of college were surprising but positive, we also believed there was still an opportunity to influence those that might not have put the same stress on it as their classmates. In fact, when looking at Chart 5, one can see that opinions did in fact continue to rise even further after the seminar. The number of highest possible responses, a ten, nearly doubled from the time the class walked into the presentation and when they left. Supporting the argument that the seminar presented worthwhile information, students confirmed this by their marks on question four. In fact, no student of the 58 total responded negatively to the question, "Do you feel that the seminar presented worthwhile

Chart 5

Comparing post survey responses with pre survey responses to the question: "Will you be more likely to start saving for retirement immediately upon entering the workforce?"



and important information for college students?" Every answer provided was a seven, eight, nine, or ten. Further, having been exposed to a successful retirement education first-hand, students were much more likely to respond positively when asked if all students should have a retirement and basic money management education prior to entering the workforce. The responses to the above questions while somewhat expected, were all extremely positive and leaned in favor of providing a brief retirement education for all students.

Conclusions

Retirement education is more important today than ever before for reasons such as shifting pension reform, uncertainty regarding government programs, and a more mobile and healthy workforce. Still, workers refuse to take the responsibility to plan their post-working life, resulting in low levels of confidence as shown in the literature. Previous studies done in the workplace are extremely consistent in proving that retirement education produces positive effects, but is it as effective for college students, who have even more time to save?

The purpose of this study was to look at the effects of a brief, one time retirement seminar geared toward college students and if those changes noticeably increase retirement knowledge and awareness. Our study both confirms the work of previous researchers in the field and also adds to the growing library of literature on retirement education.

First, the results show that business students do, generally, have a better understanding of retirement concepts, probably through basic money management skills and awareness of the time value of money. Still, both groups lack the ability to apply the knowledge to their own personal situation and make use of the learning. It is also noteworthy that when it came to the open seminar, more business and math students (as well as seniors and males) responded to the invitation than others. This shows that even outside of the classroom, these students are more willing to combat the financial responsibility. This conclusion directly mimics that of Power, Hobbs, and Ober (2011). This group makes the claim that there is a curricula deficiency in business education in the area of retirement literacy. Second, our findings directly coincide with that of the Aegon study “The Changing Face of Retirement: The Young, Pragmatic, and Penniless Generation” in which both show that workers in their twenties have a strong desire to save for retirement despite many obstacles and low financial literacy. Third, when applicable, relevant information is presented to students regarding retirement, even in a seminar style presentation, student’s awareness increases dramatically. As researchers, we believe the information cannot be fact heavy and should not be delivered by someone older the students cannot relate to. Statistics, graphs, and real life examples are all useful tools for delivering the information. Fourth, students that understand the importance of retirement education, also recognize the importance of delivering the same education to others. After the seminar, every student claims that they believe retirement education is important for college students prior to entering the workforce for the first time and receiving a stable paycheck. *Ex-post*, by directly comparing the results of the pre and post surveys on confidence, attitudes, and knowledge, the 58 students that were educated gained valuable knowledge regarding retirement that most other their age are not exposed to. These students should have left with a different, clearer outlook on retirement, a better understanding on how to apply the knowledge to their own lives, and as a result, should be one step closer to achieving a successful retirement because of it.

Although semester long courses may be much more comprehensive on the topic, they are not always available, convenient, or even often relevant to the actual topic of retirement preparation. Further, the retirement material may become too diluted over an entire semester; the important topic is simply spreading awareness, which can be efficiently done in a short seminar. All of the conclusions together provide overwhelming support for open, semi-annual retirement seminars on college and university campuses for all years and majors.

Shortfalls of the study

In reference to the distribution of students that responded to the open seminar, some explanation may be found when looking at the sponsoring institution's demographics for available students to participate. According to the fall 2013 enrollment report, the institution reported 45.8 percent female and 54.2 percent male enrollement. While this is relatively even, some consideration must be given to this fact. Similarly, by school compared to total enrollment, one can use the percentages to possibly explain the composition of the audience. Referencing the same fall 2013 enrollment report, of the total 5,481 students, 32.6 percent declared the School of Business, 10.6 percent were enrolled in the School of Education and Social Sciences, 23.6 percent were School of Communications and Information Systems, 16.1 percent were School of Engineering, Mathematics, and Science, 14.7 percent were School of Nursing and Health Sciences, and the remaining small percentage were undecided. The final shortfall of the study could possibly have been the phrasing of the questions on the survey. For example, when we asked, how likely are you to start saving immediately out of college, this inadvertently stresses the importance of saving for retirement and could possibly have influenced more students to answer higher on the scale than they normally would have.

Suggestions for Further Research

As the primary researchers on this study, we have several suggestions for further research. First, we conducted this study on a small scale, at a small, private Pennsylvania university with a high distribution of business students. We suggest that the study be conducted using similar, but more in-depth and longer surveys, yet with the same effective PowerPoint, at other institutions across the country. Demographics by gender, year, and most importantly major would be tracked in depth to see if the material has a larger effect on one specific group than another. Second, this study proves the short-term effectiveness of a retirement seminar on college students. Their awareness and knowledge increased at least for a short time to take the post-seminar survey. It would be interesting to conduct a follow-up study with these 58 students and compare their retirement savings within the first five years in the workforce to the national average of others their age to track the long-term effectiveness.

References

Aegon. (2013). *The changing face of retirement: The Aegon retirement readiness survey 2013.* Retrieved from http://www.aegon.com/Documents/aegon-com/Insight/Retirement-readiness/Aegon-Retirement-Readiness-Survey-2013.pdf

Aegon. (2013). *The changing face of retirement: The young, pragmatic and penniless generation.* Retrieved from http://www.aegon.com/Documents/aegon-com/Research/aegon-retirement-readiness-survey-young-generations.pdf

Avard, S., E. Manton, and D. English. (2005). The financial knowledge of college freshmen, *College Student Journal*, 39(2): 321-339.

Bennett Clark, J., & Block, S. (2012). How to retire rich. *Kiplinger's Personal Finance, 66(10), 43.*

Bernheim, B. Douglas. (1998). "Financial illiteracy, education, and retirement saving." *Living with Defined Contribution Pensions,* edited by Olivia S. Mitchell and Sylvester J. Schieber, 38-68. Philadelphia, PA: University of Pennsylvania Press.

Bernicke, T. (2005). Reality retirement planning: A new paradigm for an old science. *Journal of Financial Planning*, *18*(6), 56-61.

Blakely, J., & Ribeiro, V. (2008). Are nurses prepared for retirement?. *Journal Of Nursing Management, 16(6), 744-752. doi:10.1111/j.1365-2834.2008.00916.x*

crisis. 2014. In *Merriam-Webster.com*. Retrieved Jan 21, 2014, from http://www.merriam-webster.com/dictionary/crisis

Ellen, P., Wiener, J., & Fitzgerald, M. (2012). Encouraging people to save for their future: Augmenting current efforts with positive visions of the future. *Journal Of Public Policy & Marketing, 31(1), 58-72. doi:10.1509/jppm.09.089*

Employee Benefits Research Institute and Mathew Greenwald & Associates. (2013). *Retirement confidence survey.* Retrieved from http://www.ebri.org/pdf/surveys/rcs/2013/Final-FS.RCS-13.FS_1.Conf.FINAL.pdf

Falzon, G. P. (2011). Keeping the end in sight: Creating a retirement income culture. *Benefits Magazine, 48(11), 28-32.*

Grace, D., Weaven, S., & Ross, M. (2010). Consumer retirement planning: An exploratory study of gender differences.*Qualitative Market Research, 13*(2), 174-188. doi: http://dx.doi.org/10.1108/13522751011032601

Hathaway, I., Khatiwada, S., & Federal Reserve Bank of, C. (2008). Do financial education programs work? *Working Paper 08-03.Federal Reserve Bank Of Cleveland.*

Helman, R., and V. Paladino. (2004) Will Americans ever become savers? The 14th Retirement Confidence Survey, *Employee Benefit Research Institute Issue Brief, No. 268, 1-17*.

Hilgert, Marianna A., and Jeanna M. Hogarth. (2003). "Household financial management: The connection between knowledge and behavior." *Federal Reserve Bulletin* 89(7):309-322.

James, J., W, H. L., & Maniam, B. (2002). Financial planning, managers, and college students. *Managerial Finance, 28*(7), 35-42.

Jutting, C., & Lieberman, A. (2012). Overview of the dimensions of preparedness for retirement. *Key Demographics in Retirement Risk Management*, 23-33.

Kim, J., Kwon, J., & Anderson, E. A. (2005). Factors related to retirement confidence: Retirement preparation and workplace financial education. *Journal Of Financial Counseling & Planning, 16(2), 77-89.*

Korhonen, J. (2011). Effect of business education and personality on retirement savings. (77).

Krajnak, P. A., Burns, S. A., & Natchek, S. M. (2008). Retirement education in the workplace. *Financial Services Review, 17(2), 131-141*.

Lusardi, A., & Mitchell, O. S. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics, 42(1), 35-44.*

MAPM, v. A., HB van, d. V., & HAB van, d. M. (2010). Retirement planning by Dutch farmers: Rationality or randomness? *Agricultural Finance Review*, *70*(3), 365-376. doi: http://dx.doi.org/10.1108/00021461011088495

Mayer, R. N., Zick, C. D., & Marsden, M. (2011). Does calculating retirement needs boost retirement savings?. *Journal Of Consumer Affairs, 45(2), 175-200. doi:10.1111/j.1745-6606.2011.01199.x*

Meredith, B. (2011). The need for retirement income planning standards for mid-market Americans. *Journal of Financial Planning, 24*(12), 42-43.

Michael, D. E., & Murray, S. A. (2003). A stages model for planning retirement income distribution. *Journal of Financial Planning, 16*(6), 42-42.

Munnell, A.H.,F. Golub-Sass, M. Soto, and A. Webb. (2008). Do households have a good sense of their retirement preparedness?, *Issue in Brief 8-11*

Neal, E. C. (2004). The flashing yellow lights of retirement planning: False expectations, realities, and some good news. *Journal of Financial Service Professionals, 58*(6), 37-42.

Ntalianis, M., & Wise, V. (2011). The role of financial education in retirement planning. *Australasian Accounting Business & Finance Journal*, 5(2), 23-37.

Olsen, A., & Whitman, K. (2007). Effective retirement savings programs: Design features and financial education. *Social Security Bulletin, 67(3), 53-72.*

Power, M. L., Hobbs, J. M., & Ober, A. (2011). An empirical analysis of the effect of financial education on graduating business students' perceptions of their retirement planning familiarity, motivation, and preparedness. *Risk Management & Insurance Review, 14(1), 89-105. doi:10.1111/j.1540-6296.2011.01194.x*

Rappaport, A. M. (2012). Important trade-offs in retirement decision making. *Benefits Quarterly, 28(4), 24-32.*

Shobe, M., & Sturm, S. (2007). Youth individual development accounts: Retirement planning initiatives. *Children & Schools, 29(3), 172-181.*

Transamerica Center for Retirement Studies. (2013). *14th annual Transamerica survey of American workers*. Retrieved from http://www.transamericacenter.org/docs/default-source/resources/center-research/TCRS2013_SR_fullworker.pdf

Tulloch, J. (2010). Workplace retirement education gets fresh look. *Benefits & Compensation Digest, 47(7), 28-31.*

Vernon, S. (2013). The next evolution in defined contribution retirement plan design: A guide for DC plan sponsors to implementing retirement income programs. Retrieved from http://longevity3.stanford.edu/wp-content/uploads/2013/09/SOA_SCL_Final.pdf

Wang, P. (2013). Personal interview with P. Diamond.

Willett, M. (2008). A new model for retirement education and counseling. *Financial Services Review, 17(2), 105-130.*

Workman, J. F. (2012). Education best practices to boost retirement readiness. *Benefits Quarterly, 28(4), 11-15.*