Emergency Funds and Savings among Service Members

Using data from a survey of young, enlisted Army service members, we explore whether soldiers have emergency funds and other types of savings. We find different sets of predictors for having an emergency fund and for the amount held in the fund. In general, education and money management experiences, both in the military and pre-military, are associated with having an emergency fund as well as having other forms of saving.

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Mastering basic money management skills, including saving habits, is a common goal of consumers, especially in the current economic environment. Newly independent youth, including members of the military, are a particularly important audience for financial information and education as they are at the start of building their financial identities and have the potential for getting started on the right path with respect to savings habits (Braunstein & Welch, 2002; Hilgert, Hogarth, & Beverly, 2003; Lusardi, 2008; Stigler, 1983). One of the key elements of savings is building up an emergency fund (Garman & Forgue, 2008); this is especially important for newly independent youth who have less of an asset cushion to fall back on when financial problems arise.

The goal of this paper is to explore the savings and emergency fund holdings of a sample of soldiers, including both those who attended a two-day financial education program and those who did not. In doing so, we hope to shed some light on opportunities for education and workplace policies that may help young people develop the savings habit and have an emergency fund.

Previous Studies

Motivations to Save

In a 1996 study,Lusardi and Browning explored households' motivations to save. Theybegin by identifyingnine savings motives, eight of which wereoriginally identified by Keynes(Lusardi & Browning, 1996). In thestudy,theyfound that these are common motivations for the general population, and the motives seemed to be comprehensive enough to exhaust most, if not all, other possible reasons to save. The authors confirmed that savings rates increased consistently from early adulthood until retirement, when rates began to decline. They also determined that the overall savings rate had been on a declining trend since the 1970's, as far back as the data permitted them to test.Moreover, they found that those who werewealthier and highly educated were more likely to save than others(Lusardi & Browning, 1996).

Others have studied savings motivations as well. Xiao and Noring (1994) found that slightly less than half of the repondents in the sample were motivated to save for emergency fund purposes. Retirement and upcoming purchase motives also ranked highly. Saving for children was also given as a motive by approximately one fifth of the respondents (Xiao & Noring, 1994). Lunt and Livingstone (1991) found that economic characteristics and situations had the greatest impact on saving behaviors, although demographic and psychological characteristics explained some of the variation as well. The study then analyzed difference between recurring and total savings. The authors found that, although psychological motivations may accurately predict if a household saves, economic factors were more accurate at predicting the amount of savings (Lunt & Livingstone, 1991).

Lindbeck(1997) provided a more theoretical and historical perspective on what motivates people to save. He argues that the poor state of savings is in part due to economic disincentive. Prior to the Great Depression income tax was low and people did not receive much in aid from the federal government during times of economic distress(Lindbeck, 1997). As a result, people often saved more of their income to carry themselves through the hard times. He further argued that the modern welfare programs provide disincentives to save, when governments provide mandated retirement saving via social security or provide financial assistance via welfare or social service payments. These economic disincentives have created a society much more willing to spend their personal income and rely on government assistance in a time of financial crisis or need (Lindbeck, 1997).

Expressing a contrary view, Chiteji and Hamilton (2005) explore kin networks and asset accumulation; they recognize that welfare programs allow families who are doing the right thing to save without having to support their kin network. Chiteji and Hamilton(2005) comment that those families who have saved could be plagued by poor family members who have made poor decisions. This kin network proves to be a resource drain that does not

allow the family member to save for him/herself. However, with a minimal welfare system the poor have a means to sustain themselves at the most basic level, theoretically allowing the rest of the kin network to save in order to help themselves and their immediate families (Chiteji & Hamilton, 2005).

Financial Literacy and Savings

Lusardi (2008) has continued her study of financial literacy and its ties to savings behavior. She maintains that basic financial literacy rates are alarmingly low, especially among older individuals. She also found that advanced financial literacy was lacking, even among the highly educated. Lusardi claims that improving financial literacy is crucial to improving saving rates and retirement planning across the general population(Lusardi, 2008).

The FINRA National Financial Capability Study (2009) demonstrates a much more grim view of American saving rates. The study found that, in the immediate term, 51% of Americans surveyed responded that they had not saved for a rainy day fund(Applied Research and Consulting LLC, 2009). Among families with financially dependent children, 58% of respondents has not begun saving for their child(ren)'s educations(Applied Research and Consulting LLC, 2009). These two statistics reflect a lack of saving among Americans. Thisshows that saving for the future is not a priority in many households, either because there is no income to spare or because the households are choosing to spend on other items. It is clear that the majority of Americans save far less than they should (Lusardi, 2008; Lusardi & Browning, 1996; Applied Research and Consulting LLC, 2009).

Emergency Funds

Researchers have studied the factors that affect the short- and long-term savings of consumers as well as their levels of preparation for a major financial emergency. For example, Chang and Huston (1995) found that most families do not save as much as guidelines might indicate. Other studies have looked at the composition of the household as it relates to savings (Huston & Chang, 1997; Cho, Fang, & Hanna, 2007). Huston and Chang (1997) classified savings into three categories: quick (emergency) funds, which consist of assets held in highly liquid accounts such as savings, checking, or money market accounts; intermediate funds, which include CDs in addition to the quick funds; and comprehensive funds, which include stocks, bonds, and all assets in the intermediate funds (Huston & Chang, 1997). The authors commented that previous studies have found that age and education played a significant role in whether a household would meet the 3-month emergency fund standard. The Chang & Huston played major roles in the probability that one will save and meet the three-month standard. This is of particular interest considering that financial literacy declines with age but actual savings and financial preparedness seems to increase. They concluded that multi-person households (2 or 3 people) were more likely to save,while single parents were the least likely to meet the standard for a sufficient emergency fund (Huston & Chang, 1997).

A study by the Consumer Federation of America (Brobeck, 2008) shows that less than one-third of low-tomoderate income households have a savings account, and less than 3 in 10 say they have an emergency fund of at least \$500. Low-to-moderate income households report that they need about \$1,500 in an emergency fund, compared with \$3,000 for households that are more middle income.

Retirement Savings

There is substantial evidence linking financial literacy and financial planning with retirement. Lusardi and Mitchell have conducted multiple studies on the relationship between financial literacy and successful retirement (Lusardi & Mitchell, 2005; Lusardi & Mitchell, 2007). For example, they examinedbaby boomers' plans for retirement using 2004 data from the Health and Retirement Study. They found that very few households feel secure about their retirement planning skills, and less than 20% of the sampled households successfully planned for retirement and carried out that plan (Lusardi & Mitchell, 2005). They also determined that there is a statistically significant association between financial literacy and successful financial planning (Lusardi & Mitchell, 2005). This result is explored in further depth in the authors' later study, which compared the 2004 data and the 1992 data from the same survey (Lusardi & Mitchell, 2007).

This report notes that high retirement wealth is correlated with financial planning but that planning may also be highly associated with patience, intelligence, or other demographic factors that imply a low discount rate. Even after controlling for these variables, however, financial planning still has a statistically significant effect on retirement wealth. The authors then determine the effect that wealth may have on planning and discover that the correlation is actually negative, although not always statistically significant. This implies that as households become wealthy enough to afford retirement, they slow down their planning efforts (Lusardi & Mitchell, 2007). Overall, both studies conclude that financial education affects financial planning, which affects retirement wealth.

Some studies have focused on the effects of financial education on American households (Bayer, Bernheim, & Scholz, 2009; Bernheim & Garrett, 2003). One survey focused on employers and the other focused on households. The survey of households examined the effect of financial education on all types of saving, whereas many studies focus solely on pension saving (Bernheim & Garrett, 2003). The authors find that a strong association between retirement savings and financial education seems to exist across virtually all measures. Overall saving (both retirement and non-retirement), however, presents a more confounding scenario.

The study of employers provides evidence of a powerful association between financial education and retirement savings (Bayer, Bernheim, & Scholz, 2009). They show that retirement seminars or other financial presentations lead to significant increases in the frequency and amount of retirement saving. They find that this effect is strongest among employees who are not highly compensated, and their methods of statistical analysis provide more robust results than the household survey (Bayer, Bernheim, & Scholz, 2009). Both studies in conjunction show that financial education is strongly correlated with household financial decisions and is beneficial overall (Bayer, Bernheim, & Scholz, 2009; Bernheim & Garrett, 2003).

Clark and D'Ambrosio(2003) found that financial education is strongly associated with not only the amount of retirement savings but also the planned retirement age. They also discovered that men are less likely to alter either savings levels of planned retirement age than women are. Finally, the study showed that, while many recipients of financial education are likely to decide to make changes to saving levels during the course or seminar, recipients are unlikely to implement these changes immediately (Clark & D'Ambrosio, 2003). Another study, which focused on evaluating financial education programs, suggests that the impact could be even greater but is undocumented (Fox, Bartholomae, & Lee, 2005). That study also showed that if financial education seminars included an evaluation at the end, it is likely that an even greater effect would be shown. The authors suggest a uniform standard of evaluating all financial education programs, hoping that this could lead to more efficient and usable data and, ultimately, more financially knowledgeable consumers (Fox, Bartholomae, & Lee, 2005).

Military Families

McCubin et al. (1980) explored the personal savings habits of military families and the effects separation has on those families (McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980). The results indicated that deployment can create extreme hardship on military families making it difficult for them to maintain saving habits. Other studies have looked at the challenges U.S. soldiers face in managing their finances since they often have two different wages for active and non-active duty. Further, they may not be permitted to have a second job to complement their low military family life. They found that financial stability was a chronic concern for military families. In particular, the stress of separation due to deployment, which can sometimes be unexpected, complicates financial and family business (Drummet, Coleman, & Cable, 2003).

In particular, the study found that spouses were able to manage a separation of 3 months or less but the majority of respondents was not confident about their ability to manage a separation of 7 months or longer (Drummet, Coleman, & Cable, 2003). Further, 64.3% of spouses said that they work in order to pay the bills. If a family can barely afford to pay their monthly bills, then they may have limited capacity to save for the separation periods. The authors argue that military families would benefit from a program that taught and mandated saving for the deployments, an inevitable aspect of a military job for which these families must prepare (Drummet, Coleman, & Cable, 2003).

Other studies have focused on the finances of single soldiers and found similar information (Graves & Peterson, 2005; Bell, Gorin, & Hogarth, 2009). Graves and Peterson found that many of the soldiers reported living month to month, only having enough money to pay everyday bills. Debt is also a problem among soldiers, which mitigates against healthy saving habits (Graves & Peterson, 2005). In addition, when soldiers cannot pay their bills they often resort to payday loans. Unfortunately, those who cannot pay their bills also face pressure to catch up from their commanding officer.

Bell et al. (2009) found that two-thirds of soldiers have no emergency savings. Among those who did, the median amount was \$500. They also found that having a financial education course while in the military was associated with saving regularly.

Data and Model

Data

The Army Emergency Relief (AER), the U.S. Army post at Ft. Bliss in El Paso TX, and the Federal Reserve Board have been collaborating over the last several years to provide financial education for young enlisted

soldiers and to evaluate the impact of that education on the soldiers' financial management behaviors. Soldiers attending the Army's air defender advanced individualized training (AIT) at Ft. Bliss are offered a two-day financial education course taught by staff from San Diego City College; funding for the course is provided by AER.¹ At the end of the two-day course, soldiers complete a survey of financial behaviors that serves as a baseline for the evaluation. A second group of soldiers at Ft. Bliss, who did not participate in the financial education course, serve as a comparison group. Follow-up surveys were conducted in January 2008 and January 2009 to provide second data points for those who took the financial education course.

The survey draws upon the experiences of many other financial education evaluations and collects a wide variety of information on demographics, the soldiers' pre-military histories (including financial management practices of their parents and family members), financial products they use, their current financial standing, financial behaviors and activities, a financial self-assessment, and information on financial education programs attended.

Data reported here are from "paper and pencil" questionnaires administered during the financial education course (baseline, conducted in 2006-2008), in January, 2008 (follow-up and comparison group), and in January, 2009 (follow-up and comparison group). For the baseline survey, instructors for the course collected the completed questionnaires and sent them to the Board's contractor for coding, verification, and safe-keeping. Federal Reserve Board staff worked with the central tasking manager at Ft. Bliss and administered questionnaires to air defender units during January, 2008 and January, 2009. For these surveys, about 350 soldiers from several units each year were "tasked" to report to the post's movie theatre, where we provided the surveys. Soldiers completed them on-site and turned them in. These also were sent to the contractor. After coding, staff worked with the contractor to identify the matches between the baseline and follow-up surveys. Of the 4,061 respondents in the baseline survey group, 199 had matches in the follow-up surveys. In addition, there were 293 observations in the comparison group from the January 2008 and 2009 survey events.

The course provided by San Diego City College is substantively similar to the course they provide to the Navy, adapted as needed for the Army. During the period of the study, the course was presented in a two-day format (approximately 16 hours of instruction), generally on consecutive Saturdays. In late 2008, it was revised to be delivered in a one-day (8 hours) format. The course covers the topics of budgeting, credit, consumer awareness, purchasing a motor vehicle, insurance, the Thrift Savings Plan (TSP) and investing, with substantial amounts of time spent on purchasing vehicles and the TSP.

Variables

Dependent variables include: 1) whether the soldier has an emergency fund, and if so, how much is in it;² 2) whether the soldier has a savings account; 3) whether the soldier has any retirement savings plan; and 4) whether the soldier has any of the 3 types of savings being studied.³

Independent variables include measures that capture experiences prior to joining the military, money management experiences and attitudes, the soldiers' background in the military, and other demographic characteristics:

Prob (have emergency fund; amount in fund) =	f (Pre-military experience, money management experience, military background, demographic characteristics)			
Prob (have other savings, have retirement savings, have any of the 3) =	f (Pre-military experience, money management experience, military background, demographic characteristics)			

Specifically, measures of experiences prior to joining the military included being aware of parents' finances growing up, having had a financial or consumer education course in high school, and having a savings account in high school. Measures of money management experiences were whether the soldier had a credit card, whether they

¹AIT generally takes place immediately after basic training; depending on the course of instruction, it can last between 6 to 12 weeks. After AIT, the soldiers are posted to their first official duty station. In this study, the air defenders were affected by deployments and by base re-alignment and closing provisions; toward the end of the study, air defenders were re-posted to Ft. Sill, OK. ² The amounts in the emergency fund were top-coded at \$65,000.

³The study collected data on amounts held in emergency funds, but not on amounts held in general savings or retirement accounts. Thus, we can only estimate amounts for emergency funds, not on other types of savings or assets.

thought of themselves as a "good money manager," and whether they had the financial education course during AIT. Military background variables were years in the military (in part, a proxy for age), pay grade (in part, a proxy for income), and GT score (in part, a proxy for intelligence, which has been linked to patience and future-mindedness). Socioeconomic variables included level of education, race, marital status, and gender.

Models

We use logit models to estimate whether soldiers have one of the types of savings accounts under study. In addition, we estimate Tobit and Cragg models for the amount of money soldiers have in their emergency funds. Tobitand Craggestimates are used when the dependent variable is censored in some way. In this study, since a large proportion (nearly 7 out of 10) do not have an emergency fund, estimates of the amounts held in emergency funds are censored at 0, and OLS would be inappropriate (Greene, 2000). Tobit models assume the decision to have an emergency fund and the amount to be held in the fund are simultaneous decisions; the estimation procedure produces a single regression coefficient that combines both the likelihood of having the fund and the amount of the fund. For Cragg models, the assumption is that the household makes these decisions sequentially – first whether to have an emergency fund and then how much to hold in it. We use both procedures in order to determine which functional form fits better.

Results

Approximately 28 % of soldiers reported having an emergency fund; for those with an emergency fund, the median amount in the fund wasabout \$2,675 (Table 1). Nearly 7 out of 10 (69%) had a savings account. About one-fourth (24%) had some type of retirement plan (a 401K account, participated in the federal Thrift Savings Plan, or an individual retirement account). Almost 8 out of 10 (79%) had at least one of these forms of savings – either an emergency fund, a savings account, or a retirement plan.

It is interesting to note the disparity between the 69% who reported having a savings account with the 28% who reported having an emergency fund – many who have "savings" apparently don't think of this as an emergency fund. There may be some "mental accounting" going on in the minds of these respondents, in that these may be targeted savings (for cars, vacations, homes, etc.).

The sample was predominantly male (85%). A minority (31%) had an education beyond high school. Because of the nature of the sample, soldiers in the financial education group had fewer years in the military and, consequently, were in lower pay grades than those in the comparison group. Also, those in the education group were more likely to be single than those in the comparison group (78% versus 49%, respectively).

Table 1

Variable Measures and Descriptive Statistics

	How Measured	Full Sample	Education Group	Comparison Group
Number of Observations		4468	4175	293
Dependent Variables				
Emergency fund	=1 if have emergency fund, 0 otherwise	27.9	27.2	37.4
Amount of emergency fund Mean Median Non-zero Mean Non-zero Median	Continuous variable, 0 to \$65,000 (top coded) Non-zero N = 1,067 for education group Non-zero N = 95 for comparison group	697.97 0 2,676.08 500	673.67 0 2,635.95 500	1,013.82 0 3,126.82 1,500
Savings account	=1 if have savings account, 0 otherwise =1 if have retirement account (401k, IRA,	69.4	69.0	75.6
Retirement account	Thrift Savings Plan, etc.), 0 otherwise	24.2	23.6	32.4
Any savings Pre-Military Experience Aware of parents' finances	=1 if have any of the three above, 0 otherwise=1 if aware of parents financial situation while	78.6	78.3	82.9
	growing up, 0 otherwise	74.2	74.6	68.4

In high school:

II. 1.C	How Measured	Full Sample	Education Group	Comparison Group
Had mance/consumer education course	-1 if bod avings account in high school 0	40.7	41.1	35.3
Had savings account	otherwise	65.3	66.0	55.9
Money Management Experience Had AIT financial education	=1 if participated in the FRB financial			
Have a credit card	education course, 0 otherwise =1 if have a credit card at the time of the	93.4	100.0	0.0
Good money manager	survey, 0 otherwise =1 if respondent thinks of them self as good	41.9	41.0	54.6
Military Background	money manager, 0 otherwise	57.0	57.5	49.1
Voors in military				
$\leq 1 \text{ (base)}$	= 1 if less than 1 year 0 otherwise	82.7	87.0	21.2
>1 but<2	= 1 if more than 1 year but less than 2, 0 otherwise	11.9	10.4	32.5
>2but<3	= 1 if more than 2 year but less than 3, 0	11.9	10.4	52.5
	otherwise	1.5	1.0	8.2
3 or more	= 1 if more than 3 years, 0 otherwise	4.0	1.6	38.0
Pay grade				
E1	=1 if military pay grade is E1, 0 otherwise;			
53	used as base	41.4	44.0	5.1
E2 F3	=1 if military pay grade is E2, 0 otherwise	30.5	31.6	15.1
E4	=1 if military pay grade is E3, 0 otherwise	22.6	21.6	36.6
E4	=1 if military pay grade is E4, 0 otherwise	4.1	2.2	31.2
ES	=1 if military pay grade is E5, 0 otherwise	0.8	0.3	7.2
E6 or more	=1 if military pay grade is E6 or higher, 0	0.6	0.2	1 9
GT score (General Technical)	Continuous	0.0	0.5	4.0
Mean		108.5	108.4	109.3
Median		109.0	109.0	110.0
Demographic Characteristics		109.0	109.0	110.0
Education				
High school or GED	=1 if have only high school diploma or GED, 0			
	otherwise; used as base	68.9	69.3	63.9
Some college/Technical	=1 if have some college or technical	25.7	25.2	22.0
2-or-4-year degree	=1 if have 2-year or 4-year college degree, 0	23.7	23.3	32.0
Other education	otherwise =1 if have some other form of education 0	4.6	4.6	3.4
	otherwise	0.8	0.8	0.7
Race/Ethnicity				
White	=1 if white, 0 otherwise; used as base	70.5	71.1	62.8
African-American	=1 if African American, 0 otherwise	12.7	12.7	12.3
Hispanic	=1 if Hispanic 0 otherwise	12.9	12.4	19.1
All other races	=1 if Asian, American Indian, Alaska Native, or other race. 0 otherwise	0.0	0.0	11.6
Marital Status/gender		9.0	0.0	11.0
Single	=1 if single, 0 otherwise; used as base	76.4	78.3	48.8
Married	=1 if married, 0 otherwise	20.3	18.8	42.6
Divorced, separated, widowed	=1 if divorced, separated, or widowed, 0 otherwise	3.3	3.0	8.6

		Full	Education	Comparison
	How Measured	Sample	Group	Group
Male	=1 if male, 0 otherwise	85.0	85.0	85.6

Emergency Funds

Experiences, whether prior to entering the military or current, were positively associated with having an emergency fund and with amounts in the fund (Table 2). One of the advantages of the Cragg model is that it allows researchers to "unbundle" the participation decision from the funding level decision. For example, in the Tobit model both having had a financial or consumer education course in high school and having had a savings account in high school increased the likelihood of having an emergency fund and the amount of the fund. However, in the Cragg model, it is clear that while having had a financial or consumer education course in high school increases the likelihood of having an emergency fund and the amount of the fund. On the other hand having a savings account in high school was associated with increases in both the likelihood of having a fund and the amount in the fund.

In terms of current experiences, both having a credit card and perceiving oneself as a good money manager increased the likelihood of having an emergency fund. Self-perception as a good money manager was only marginally associated with increased amounts in the fund.

Not surprisingly, higher pay grades were associated with increases in the likelihood of having an emergency fund and in the amounts in that fund. At the time of the survey, base monthly pay for an E1 was \$1,400 per month; base pay for an E4 with 2 to 3 years of service was about \$1,920 per month. The additional income at higher pay grades provides more opportunities to set aside funds for emergencies. The proxy for intelligence (and potentially, patience) was positively associated with having an emergency fund, as might be expected. In addition, having a 2- or 4-year degree was associated with higher amounts in the emergency fund, although this additional education had no impact on the likelihood of having a fund. Married household were more likely to have an emergency fund.

Table 2

	Tobit Es	stimates	Cragg Estimates				
			Max.				
	Tobit	Prob.	Probit	Prob.	Likelihood	Prob.	
Intercept	-15,088	0.00	-2.08	0.00	63	0.97	
Pre-Military Experience							
Aware of parents' finances	64	0.88	0.01	0.89	28	0.96	
In high school:							
Had finance/consumer ed course	903	0.02	0.18	0.00	-267	0.55	
Had savings account	2,184	0.00	0.30	0.00	1,044	0.05	
Money Management Experience							
Had AIT financial ed course	-140	0.87	-0.07	0.56	592	0.53	
Have a credit card	1,194	0.00	0.17	0.00	558	0.20	
Good money manager	4,242	0.00	0.66	0.00	899	0.08	
Military Background							
Years in military							
<1 (base)	Base	-	Base		Base		
>1 but<2	-325	0.60	-0.05	0.58	-9	0.99	
>2but<3	442	0.77	0.07	0.76	84	0.96	
3 or more	1,457	0.28	-0.01	0.95	2,740	0.07	
Pay grade							
E1	Base	-	Base		Base		
E2	467	0.28	0.67	0.28	194	0.71	
E3	1,423	0.01	0.15	0.05	1,200	0.06	
E4	-9	0.99	0.08	0.65	-496	0.70	
E5	670	0.74	0.36	0.25	-1,854	0.39	
E6 or more	1,455	0.53	0.58	0.10	-3,697	0.28	
GT score (General Technical)	31	0.04	0.01	0.01	-3	0.83	

	Tobit Estimates			Cragg	Estimates Max.	
	Tobit	Prob.	Probit	Prob.	Likelihood	Prob.
Demographic Characteristics						
Education						
High school or GED	Base	-	Base		Base	
Some college/Technical Certification	58	0.89	0.02	0.74	-86	0.86
2-or-4-year degree	1,128	0.18	-0.01	0.93	2,113	0.03
Other education	731	0.69	0.18	0.51	-363	0.86
Race/Ethnicity						
White	Base	-	Base		Base	
African-American	-564	0.36	-0.11	0.23	-42	0.96
Hispanic	-924	0.11	-0.12	0.16	-573	0.43
All other races	1,180	0.05	0.14	0.12	903	0.21
Marital Status/gender						
Single	Base	-	Base		Base	
Married	2,857	0.00	0.45	0.00	467	0.34
Divorced, separated, widowed	1,855	0.06	0.18	0.21	1,800	0.13
Male	-0.1	1.00	0.01	0.91	-34	0.96
N	3064		3064		854	
Likelihood Ratio χ^2	315.1	3(24)	359.49 (24)			
Pseudo R ²	0.	02	0.1	0		
Wald χ^2					32.53(2	24)
Prob.					0.11	

Other Savings

Experiences seem to be key to having other forms of savings (Table 3). Respondents who had a savings account in high school were more likely to have a savings account in the present. Furthermore, current experiences (having a credit card, thinking of yourself as a good money manager) were also associated with having savings or having a retirement account.

In terms of any savings, being in a higher pay grade (that is, having higher income), being in the "other" race category (generally, Asian American or Native American), and being married were associated with being more likely to have savings.

For retirement savings, having less than 2 years of Army experience, being in a higher pay grade, having some post- secondary education, and not being single were all associated with higher probabilities of having some retirement savings. These are as might be expected. In particular, in the financial education course, the instructors emphasized the Thrift Savings Plan; thus since much of our sample is from the soldiers who went through the course, and since most of these will have had less than 2 years of Army service, it makes some sense that they are more likely to have signed up for the thrift savings program. And as reinforcement, the coefficient on the AIT financial education course is significant for having retirement savings.

Those with more education may have already had some work experience, and thus some retirement plan participation, prior to coming to the military. Hispanics were less likely than their White counterparts to have some form of retirement savings, while married or divorced/separated respondents were more likely to have retirement savings accounts.

Table 3

Logistic Regression Parameter Estimates

	Emergency fund	Prob.	Savings Account	Prob.	Retirement Account	Prob.	Any Savings	Prob.
Intercept	-3.65	0.00	-0.55	0.23	-1.21	0.01	0.05	0.92
Pre-Military Experience								
Aware of parents' finances	0.01	0.91	-0.09	0.38	0.03	0.76	0.02	0.87
In high school:								
Had finance/consumer ed course	0.32	0.00	-0.06	0.53	0.41	0.00	0.16	0.13
Had savings account	0.51	0.00	1.39	0.00	0.08	0.40	1.29	0.00
Money Management Experience								
Had AIT financial ed course	-0.10	0.65	0.02	0.94	-0.52	0.01	-0.03	0.91
Have a credit card	0.28	0.00	0.36	0.00	0.36	0.00	0.60	0.00

	Emergency fund	Prob.	Savings Account	Prob.	Retirement Account	Prob.	Any Savings	Prob.
Good money manager	1.13	0.00	0.45	0.00	0.16	0.08	0.52	0.00
Military Background								
	Paga		Paga		Paga		Daga	
≥ 1 (base)	Dase	-	Dase 0.17	0.20	Dase	-	Dase	- 0.21
≥ 1 but ≤ 2	-0.08	0.39	0.17	0.28	-0.41	0.01	-0.18	0.51
>20ut<3	0.12	0.74	0.26	0.50	-0.67	0.11	0.29	0.52
3 or more	-0.05	0.89	0.38	0.32	-0.34	0.32	0.39	0.39
Pay grade	P		P		P		P	
El	Base	-	Base	-	Base	-	Base	-
E2	0.11	0.04	-0.03	0.79	0.18	0.09	-0.14	0.22
E3	0.06	0.04	0.02	0.89	0.09	0.52	0.12	0.40
E4	0.16	0.57	0.26	0.40	0.50	0.07	0.08	0.82
E5	0.62	0.23	0.21	0.74	0.69	0.17	0.09	0.91
E6 or more	1.05	0.08	2.28	0.04	1.16	0.04	1.51	0.18
GT score (General Technical)	0.01	0.01	0.01	0.84	-0.01	0.75	-0.00	0.67
Demographic Characteristics								
Education	D		D		D		D	
High school or GED	Base	-	Base	-	Base	-	Base	-
Some college/lechnical	0.00		0.01	0.07		0.01		
Certification	0.03	0.78	0.01	0.96	0.25	0.01	0.11	0.37
2-or-4-year degree	-0.04	0.84	0.09	0.70	0.50	0.01	0.25	0.40
Other education	0.26	0.58	0.41	0.48	0.09	0.85	0.18	0.78
Race/Ethnicity								
White	Base	-	Base	-	Base	-	Base	-
African-American	-0.16	0.28	0.18	0.20	0.01	0.96	-0.03	0.86
Hispanic	-0.19	0.19	0.20	0.14	-0.28	0.05	-0.06	0.69
All other races	0.22	0.13	0.36	0.02	0.09	0.56	0.46	0.02
Marital Status/gender								
Single	Base	-	Base	-	Base	-	Base	-
Married	0.81	0.00	0.32	0.01	0.34	0.00	0.45	0.00
Divorced, separated, widowed	0.32	0.18	-0.19	0.44	0.71	0.00	0.29	0.32
Male	0.03	0.82	0.02	0.88	-0.09	0.49	0.10	0.46
Ν	3064		3064	1	3064		306	4
Likelihood Ratio χ^2	387.13 (2	24)	367.86	(24)	146.25(2	24)	332.00	(24)
Pseudo R^2	0.10	,	0.10		0.04	,	0.1	1

Discussion and Conclusions

The goal of this study was to explore the savings and emergency fund holdings of a sample of soldiers, including both those who attended a two-day financial education program and those who did not. While the course seemed to make a difference in term of getting soldiers to sign up for retirement savings plans, it had no documented effect on having soldiers establish emergency funds.

That being said, however, there seems to be some disconnect between having an emergency fund *per se* and having more generic savings. While nearly 7 out of 10 of these young soldiers said they had a savings account, only about 3 out of 10 said they had an emergency fund. Clearly there is either some positive response bias in answering the question about having a saving account or the respondents are doing some substantial mental accounting in terms of segregating emergency fund savings from goal-oriented or other precautionary savings.

The financial education course seemed to make a difference in terms of having the soldiers sign up for the Thrift Savings Plan (TSP), but it seemed to have no effect on getting soldiers to set up an emergency fund. Perhaps because these respondents were so new to the military, they have no idea of what emergencies they might face and the scale of funds they need. Also, there was a clear way to sign up for the TSP – forms were provided in the financial education course. But for an emergency fund, soldiers have to make an effort to set up the account with the local bank or installation credit union, and then arrange for transfers into the fund as needed. The set-up and start-up costs in terms of both time and money may be barriers.

One implication for employers and those who work with young employees is that access may be a key consideration for this target audience; they may not have much patience for barriers – if you do not make it easy for them to sign up for automatic deposits into an emergency fund, they may not set one up. Another implication is that there may be some hurdles that respondents have to overcome to begin thinking of their "savings" as their emergency fund. The 40% of households who say they have savings but also say they don't have an emergency

fund may need to broaden their perspective on just what constitutes an emergency fund. On the other hand, data from the Survey of Consumer Finances show that balances in savings accounts can be quite low, and that some respondents may not think of these low balances as "enough" for an emergency fund (Hogarth, Hazembuller, & Wilson, 2006; Brobeck, 2008).

Having some type of "rainy day fund" continues to be important, especially for young, newly forming households who are just establishing their financial identities. As Federal Reserve Chairman Ben Bernanke said as part of America Saves Week events, "We believe that savings improves consumers' flexibility, independence, and choices in managing their personal finances and can help them in achieving their short- and long-term life goals." In this study, the respondents all had a steady paycheck, yet found it difficult to establish an emergency fund. Helping young households recognize the importance of emergency funds and setting up some mechanism for establishing and maintaining these funds requires both access and motivation. Educators, employers, and policy makers need to recognize both of these hurdles.

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References

Applied Research and Consulting LLC. (2009). Financial Capability in the United States. FINRA Investor Education Foundation.

Bayer, P. J., Bernheim, B. D., & Scholz, J. K. (2009). The Effects of Financial Education in the Workplace: Evidence from a Survey of Employers. Economic Inquiry, 47(4): 605-624.

Bell, C., Gorin, D., & Hogarth, J.M. (2009). Working Paper: Does Financial Education Affect Soldiers' Financial Behavior? Retrieved from

http://www.networksfinancialinstitute.org/Lists/Publication%20Library/Attachments/140/2009-WP-

08 Bell Gorin Hogarth.pdf.

Bernheim, B. D., & Garrett, D. M. (2003). The Effects of Financial Education in the Workplace: Evidence from a Survey of Households. Journal of Public Economics, 87(7-8): 1487-1519.

Braunstein, S., & Welch, C. (2002). Financial Literacy: An Overview of Practice Research and Policy. Federal Reserve Bulletin: 445-457.

Brobeck, S. (2008). Understanding the Emergency Savings Need of Low- and Moderate-Income Households: A Survey-Based Analysis of Impacts, Causes, and Remedies. Retrieved on from http://www.consumerfed.org/elements/www.consumerfed.org/file/Emergency_Savings_Survey_Analysis_Nov_200 8.pdf.

Chang, Y. R., & Huston, S. J. (1995). Patterns of Adequate Household Emergency Fund Holdings: A Comparison of Households in 1983 and 1986. Financial Counseling and Planning, 6: 119-128.

Chiteji, N., & Hamilton, D. (2005). Family Matters: Kin Networks and Asset Accumulation. In M. W. Sherraden, & M. Sherraden (Ed.), Inclusion in the American Dream: Assets, Poverty and Public Policy (pp. 87-111). New York, NY: Oxford University Press.

Cho, S. H., Fang, M. C., & Hanna, S. D. (2007). Who Has Emergency Savings Goals? The Proceedings of the American Council on Consumer Interests 53rd Annual Conference. St. Louis, MI: American Council on Consumer Interests, 53: 223-230.

Clark, R., & D'Ambrosio, M. (2003). Ignorance is Not Bliss: The Importance of Financial Education. Research Dialogue (78).

Drummet, A. R., Coleman, M., & Cable, S. (2003). Military Families Under Stress: Implications for Family Life Education. Family Relations, 52 (3), 279-287.

Elliehausen, G., Lundquist, C. E., & Staten, M. E. (2007). The Impact of Credit Counseling on Subsequent Borrower Behavior. Journal of Consumer Affairs, 41(1): 1-28.

Fox, J., Bartholomae, S., & Lee, J. (2005). Building the Case for Financial Education. Journal of Consumer Affairs, 39(1): 195-214.

Garman, E. T., & Forgue, R. E. (2008). Personal Finance, Ninth Edition. Boston, MA: Houghton Mifflin Co.

Gartner, K., & Todd, R. M. (2005, April 7-8). Effectiveness of Online 'Early Intervention' Financial Education for Credit Cardholders. Federal Reserve System Community Affairs Research Conference, Promises & Pitfalls: As Consumer Finance Options Multiply, Who Is Being Served and at What Cost? Washington, DC.

Graves, S. M., & Peterson, C. L. (2005, March 9). Predatory Lending and the Military.Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=694141.

Greene, W.H. (2000). Econometric Analysis. Upper Saddle River, NJ: Prentice Hall.

Hilgert, M. A., Hogarth, J. M., & Beverly, G. (2003). Household Financial Management: The Connection Between Knowledge and Behavior. Federal Reserve Bulletin: 309-322.

Hirad, A., & Zorn, P. M. (2001). A Little Knowledge is a Good Thing: Empirical Evidence of the Effectiveness of Pre-Purchase Homeownership Counseling.McLean, VA: Freddie Mac.

Hogarth, J.M., Hazambuller A., & Wilson M.D. (2006). How Much Can the Poor Save? Paper presented at the CFED Lifetime of Assets Research Conference, Phoenix AZ. Retrieved from http://www.frbsf.org/community/research/assets/HowMuchCanthePoorSave.pdf.

Hornburg, S. (2004, December). Strengthening the Case for Homeownership Counseling: Moving Beyond a Little Bit of Knowledge.Joint Center for Housing Studies: Harvard University. Retrieved from http://www.jchs.harvard.edu/publications/homeownership/w04-12.pdf.

Huston, S. J., & Chang, Y. R. (1997). Adequate Emergency Fund Holdings and Household Type. Financial Counseling and Planning, 8(1): 37-46.

Lindbeck, A. (1997). Incentives and Social Norms in Household Behavior. American Economic Review, 87(2): 370-377.

Lunt, P. K., & Livingstone, S. M. (1991). Psychological, Social, and Economic Determinants of Saving: Comparing Recurrent and Total Savings. Journal of Economic Psychology: 621-641.

Lusardi, A. (2008, June). Financial Literacy: An Essential Tool for Informed Consumer Choice? National Bureau of Economic Research. Retrieved June 2, 2010 from http://www.nber.org/papers/w14084.pdf.

Lusardi, A., & Browning, M. (1996). Household Saving: Micro Theories and Micro Facts. Journal of Economic Literature, 34(4): 1797-1855.

Lusardi, A., & Mitchell, O. S. (2007). Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth. Journal of Monetary Economics, 54: 205-224.

Lusardi, A., & Mitchell, O. S. (2005, December). Financial Literacy and Planning: Implications for Retirement Wellbeing.University of Michigan Retirement Research Center. Retrieved from http://www.mrrc.isr.umich.edu/publications/papers/pdf/wp108.pdf.

McCarthy, G. W., & Quercia, R. G. (2000). Bridging the Gap Between Supply and Demand: The Evolution of the Homeownership Education and Counseling Industry. Washington, DC: The Research Institute for Housing America. McCubbin, H. I., Joy, C. B., Cauble, A. E., Comeau, J. K., Patterson, J. M., & Needle, R. H. (1980). Family Stress and Coping: A Decade Review. Journal of Marriage and Family, 42(4): 855-871.

Stigler, G. J. (1983). The Case, If Any, for Economic Literacy. Journal of Economic Education, 60-66.

Xiao, J., & Noring, F. (1994). Perceived Savings Motives and Heirachal Financial Needs. Association for Financial Counseling, Planning, and Education, 5: 25-45.

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