Does Financial Education Affect Soldiers' Financial Behaviors?

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Financial education has risen on the agendas and priority lists of a number of agencies and organizations (Braunstein, 2008; Bernanke, 2006). In fact, the American Council on Consumer Interests commissioned a special issue of the *Journal of Consumer Affairs* in 2008 (Vol. 42, No.2) focusing on financial literacy and public policy and a second special issue on financial literacy is planned for 2010. However, despite the work of Bernheim, Garret, and Maki (2001) and Lyons, Chang, and Scherpf (2006), and the criticism of Willis (2008), the literature on evaluating the impacts of financial education is still quite thin. This study is one attempt to move the field forward by addressing two common criticisms of financial education program evaluation literature: lack of a comparison group and documenting changes over time.

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 were offered a two-day financial education course taught by staff from San Diego City College; funding for the course is provided by AER.² 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. A follow-up survey was conducted in January 2008 to provide a second data point for those who took the financial education course.³

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 history (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 they've attended.

In a nutshell, what did we learn?

Financial education did seem to have an effect on specific financial management behaviors. In simple bivariate analyses with the comparison group, soldiers who had taken the financial education course were:

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² AIT 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. During the course of this study, most air defenders stayed at Ft. Bliss or were deployed to Korea or Southwest Asia. During 2008-09, the air defender units are being moved to Ft. Sill. ³ In January 2009, we conducted a second follow up survey with the soldiers. This report only includes data from the baseline surveys and first follow-up survey in January 2008. A full timeline for the project is provided in Appendix 1.

- more likely to use an informal versus formal budget for spending
- more likely to understand the differences between discretionary and non-discretionary spending
- more likely to comparison shop for credit and major purchases
- more likely to read about money management in magazines
- more likely to have a longer planning horizon
- more likely to save on a regular basis
- more likely to have retirement savings plans and participate in the Thrift Savings Plan for retirement
- more likely to engage in moderate to high levels of good behaviors
- less likely to pay an overdraft fee
- less likely to pay bills late
- less likely to never pay off their credit card balances
- less likely to buy supplemental life insurance
- less likely to use car title loans.

In a more robust mulitvariate analysis, soldiers taking the financial education program were more likely than the comparison group to report using informal spending plans and less likely to report using formal spending plans. We also found that high school financial education programs made a difference in selected behaviors: those who had a high school financial education course were more likely to save regularly. Early financial management experience also seems to matter: soldiers who had a high school savings account were more likely to shop for major purchases, were less likely to pay overdraft fees, and were less likely to "never" pay off their credit card balances. Limitations of this study are noted at the end of this report.

What do we know already?

Over the years, numerous researchers have conducted program evaluations of financial education programs. A selection of these, dating from 1995 to 2008, is given in Appendix 2. More recently, Collins and O'Rourke (2009) analyzed a set of studies of the impacts of financial education and counseling. As with the current study, many of these programs were targeted to specific audiences: home buyers, high school youth, IDA participants, and so forth. Although financial education can be beneficial and can have a positive impact on the lives of consumers, the nature of the impact and its level of effectiveness are often difficult to measure. Furthermore, impacts may not be immediate, but education may be instrumental in starting the process of behavior change or moving people from one stage of behavior to another (Xiao et al., 2004). Researchers and practitioners continue to debate the rigor of various evaluation techniques and the appropriate measures to use (Lyons, 2005; Willis, 2008). While knowledge, attitudes, behaviors, and outcomes (dollars saved or debt reduced) have been the metrics of choice, researchers and program evaluators are beginning to coalesce around the desirability of outcome measures. Increased knowledge alone does not necessarily change behavior.

How were the data collected?

Data reported here are generally from "paper and pencil" questionnaires administered during the financial education course (baseline), in January, 2008 (follow-up and comparison group), and in January, 2009 (follow-up and comparison group).⁴ 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.⁵ Board staff worked with the central tasking manager at Ft. Bliss and administered questionnaires to air defender units during January, 2008 and January, 2009. These also were sent to the contractor. After coding, Board 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 survey. These matched observations are used in this report. In addition, there were 293 observations in the comparison group from the January 2008 and 2009 survey events.

Results

Who is in the study?

Soldiers in this study were in their early 20's, and predominantly male (86%) (Table 1). There are a number of other characteristics that relate closely to the age of the respondents. As might be expected when studying a population in their early 20's, 70% of the soldiers in our baseline survey were single; by the time of the follow-up surveys, 54% were still single. About two-fifths (40%) of the soldiers in this study had some post-secondary education.

Because the financial education course was delivered during the soldier's AIT (generally taken within the first year of military service), the majority of the soldiers in the baseline survey (92%) had less than one year of military service. By the time of the first follow-up survey, about two-fifths (40%) had more than one year, but less than 3 years of service.

Pay grade, or rank, is closely correlated with length of service; three-fourths (78%) of those in the baseline survey were E1 or E2. By the time of the first follow-up, 45% were still E1 or E2, but 54% were now in the higher pay grades of E3 or E4.6

For many of these characteristics, soldiers in the comparison group were different. While still predominantly male, they were slightly older, with more military experience, and in higher pay grades. There was no difference in marital status between soldiers in the follow-up survey and those in the comparison group.

⁴ Early in the study, we used a web-based survey design; this proved unsuccessful for a variety of reasons and we switched to the paper and pencil method. A copy of the questionnaire is in Appendix 3.

The contractor for the contractor fo

The contractor for this project was Qualtrics, based in Provo UT, selected via a competitive bidding process.

⁶ Monthly pay for an E1 with less than 2 years of experience was \$1,400 per month in 2009 (\$16,800 annually); monthly pay for an E4 with between 2 and 3 years of service is \$1,921 (\$23,052 annually; U.S. Military.com, 2009).

Table 1. Demographic Variables

in percentages except where noted

		Financial Education Groups		Comparison
		Baseline	Follow-up	Group
Number of observations		199	199	293
Age		21.74		23.81
Male		85.64		85.62
Marital status ^{ac}	Single	69.70	54.31	48.80
	Married	27.78	40.61	42.61
	Divorced	2.03	3.05	5.15
	Separated	.50	2.03	3.09
	Widowed	-		0.34
Education High school	diploma	46.19	41.84	46.74
	GED	19.29	17.86	17.18
Some college or tec	h certificate	28.93	31.12	31.96
2-	year degree	4.57	5.12	2.06
4-	year degree	1.02	3.06	1.37
	Other	0.00	1.02	0.69
Length in military service ^{abc} Less	than 1 year	91.89	59.48	21.23
More than 1 year, but	less than 2	5.41	33.99	32.53
More than 2 yrs, but	less than 3	1.08	5.88	8.22
	more years	1.62	.65	38.01
Pay grade ^{abc}	E1	44.16	14.72	5.14
	E2	34.01	30.46	15.07
	E3	20.30	45.18	36.64
	E4	1.52	9.14	31.16
	E5	0.00	0.00	7.19
	and above	0.00	.51	4.79
ASVAB score (Armed Services Vocation	nal Aptitude			
Battery)		68.34		66.13
GT score (General Technical)		111.99		109.23
Ethnicity*	White ^c	86.19		65.02
	ın American	8.53		13.58
Hisp	oanic-Latino	20.00		20.66
	Asian	4.76		2.28
American Indian/Al	aska Native	2.46		4.18
	Other	3.23		7.22

^{*}Components do not sum to 100% because some respondents reported more than one ethnicity

What financial management experiences did they bring with them?

Between two-thirds and four-fifths of the respondents said they were aware of their parents' financial situation while growing up and more than two-thirds thought their parents were good

⁻⁻ does not apply

a Significant at 0.05 between baseline and follow-up groups

b Significant at 0.05 between follow-up and comparison groups

c Significant at 0.05 between baseline and comparison groups

at managing their finances (Table 2). About half said that their parents talked with them about their finances and 7 out of 10 said that their parents talked with them about managing their own money.

Two-fifths (39%) of those in the baseline group reported taking a financial education or consumer education course in high school, compared with 35% in the comparison group.

Two out of three soldiers (66%) in the baseline survey said they had a savings account in high school, compared with 56% in the comparison group. More than half (56%) said that they regularly set aside money in that account.

Because the military pays via direct deposit, virtually all soldiers have some type of checking or transaction account. More than half -- 58% -- said they had a checking account in high school and 78% of those said they had used a debit card with that account. About 14% of respondents said they had a credit card in high school, either in their own name or in their parents' names.

 Table 2. Financial History and Pre-Military Behaviors

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow- up	Group
While growing up, I was aware of parents financial situation ^c	80.93		68.40
While growing up, parents were good at managing finances	68.56		73.36
While growing up, parents talked to me about their finances ^c	55.38		45.67
While growing up, parents talked to me about managing money	75.51		70.59
In high school I took a class in finance/consumer education	38.66		35.29
In high school I had a savings account ^c	66.49		55.90
While growing up, I regularly set aside money for savings	56.02		50.69
In high school I had a checking account	58.25		55.02
Of those with checking, I had a debit card			
Yes, in my name	77.68		71.79
Yes, I had access via parents	2.68		3.85
In high school I had a credit card			
Yes, in my name	12.82		10.53
Yes, I had access via parents	1.03		2.11
No	85.13		87.37
Don't know	1.03		0.00

⁻⁻ does not apply

a Significant at 0.05 between baseline and follow-up groups

b Significant at 0.05 between follow-up and comparison groups

c Significant at 0.05 between baseline and comparison groups

What are their basic financial management behaviors?

Among an array of basic financial management behaviors, we looked at budgeting and tracking spending, managing a checking account, comparison shopping, and paying bills on time (Table 3). We also collected data on their attitudes and perceptions.

Budgeting. In the baseline survey, nearly two-thirds (64%) said they used either a formal or informal budget. This percentage was nearly the same in the follow-up survey (67%), but the distribution had shifted to more using informal budgeting, or what Thaler (1990) refers to as "mental accounts." In contrast, while 68% of the comparison group reported using a budget, the proportions were more evenly split between using formal and informal budgeting (41% and 44%, respectively).

Tracking spending. A large proportion of those in the baseline and follow-up groups – more than 82% -- reported that they track their spending (80% in the comparison group), and 88% said that they checked the balance in their checking account during the month. The proportion monitoring their checking account held steady in the follow-up survey, and was no different than the comparison group. More than half (55%) in the baseline survey said they understood the difference between discretionary and non-discretionary spending. By the time of the follow-up survey, this proportion increased to 67%; in contrast, 54% of the comparison group said they understood this difference.

Perceptions. Nearly two-thirds (65%) of those in the baseline survey considered themselves to be good money managers; this proportion dropped slightly to 60% in the follow-up survey. In the comparison group, 49% considered themselves good money managers (more information follows below on how their perceptions match with their behaviors).

Because peers can be important influences in managing money, we also asked soldiers about their perceptions of their friends' money management skills. Across the board, about one-third (32% to 38%) of soldiers agreed that their best friends were good money managers. However, while one out of six in the baseline did not see their friends as good money managers, one-fourth of the comparison group held this perception. It may be that having spent more time in the service, these soldiers had more time to observe poor money management behaviors among their peers.

Table 3. Budgeting, Tracking, and Perceptions

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
Use either formal or informal budgeting	64.48	67.37	68.23
Use a formal budget for spending ^b	33.89	28.72	41.39
Use an informal budget for spending	42.08	51.58	43.75
Track spending periodically	84.32	82.72	80.87
Check the balance in your checking account during the month	88.11	87.96	88.04
Understand the difference between discretionary & non-discretionary spending ^{ab}	55.00	66.67	53.51
Soldiers who consider themselves a good money manager ^{bc}	64.74	60.21	49.11
Best friend in the military is a good money manager			
Strongly agree	10.70	11.64	9.61
Agree	21.93	26.46	22.42
Neutral	49.20	41.27	43.77
Disagree	12.83	14.29	14.23
Strongly disagree	5.35	6.35	9.96

a Significant at 0.05 between baseline and follow-up groups

Returned checks and overdrafts. One possible consequence of not tracking money in a checking account is the risk of overdrawing that account and bouncing checks (that is, having checks returned for non-sufficient funds). In the baseline survey, about 9% of the soldiers reported bouncing one or more checks and 30% reported paying an overdraft fee. While the incidence of bounced checks declined slightly to 6% in the follow-up survey, a higher proportion -- 39% -- reported paying overdraft fees. The comparison group was as likely to report bouncing checks, but were more likely to report paying an overdraft fee.

Interestingly, having a checking account in high school (and thus more experience managing a checking account) was not associated with the likelihood of bouncing a check. Of those in the baseline survey who had a checking account, 6% reported having bounced a check recently, compared with 7% of those with no checking account in high school (in the comparison group, these proportions were 9% and 5%, respectively). When it comes to paying overdraft fees, however, it does look like experience may help. Among those in the baseline survey who had a checking account, 20% reported paying an overdraft fee compared with 32% of those without checking accounts in high school. By the time of the follow-up survey, when all soldiers had more experience with checking accounts, those without an account in high school were less likely to report paying an overdraft fee.

b Significant at 0.05 between follow-up and comparison groups

c Significant at 0.05 between baseline and comparison groups

Table 4. Returned Checks and Overdrafts

in percentages except where noted

	Financial Education	Comparison	
Within the last 6 months	Baseline	Follow-up	Group
Bounced 1 or 2 checks	6.56	5.24	6.50
Bounced 3 or more checks	2.19	1.06	1.81
Had a checking account in high school and bounced a check	6.19	4.17	8.81
Did not have a checking account in high school and bounced a check	7.41	13.79	5.38
Paid an overdraft fee ^c	29.89	38.50	47.81
Had a checking account in high school and paid an overdraft fee ^c	27.89	40.86	45.95
Did not have a checking account in high school and paid an overdraft fee ^{bc}	32.00	26.93	50.00

a Significant at 0.05 between baseline and follow-up groups

Comparison shopping. Because comparison shopping can help consumers get better deals – either a lower price or more value for the same price – the survey included several questions on shopping strategies. About one-third of respondents in the baseline survey said they comparison shopped for credit and investment products, and about 65% said they comparison shopped for major purchases. At the time of the follow-up survey, the proportions who reported shopping for credit and major purchases rose slightly, while shopping for investments held steady (which is not surprising given that most of the soldiers in the study were probably not in a financial position to do much investing). About one-fourth said they reviewed "magazines like Consumer Reports" before making a major purchase, and this remained unchanged across the study period. One out of four (27%) in the baseline study said they read money management magazines but this rose to nearly two-fifths (39%) of those in the follow-up survey.

Soldiers in the comparison group were as likely to shop for investment products as those in the financial education group. Those in the comparison group were less likely than those in the follow-up study to shop for a major purchase. They were as likely to read magazines like *Consumer Reports*, and to read money management magazines.

b Significant at 0.05 between follow-up and comparison groups

c Significant at 0.05 between baseline and comparison groups

Table 5. Shopping Skills

in percentages except where noted

	Financial Education	Financial Education Groups	
	Baseline	Follow-up	Group
Comparison shop for credit ^b	32.22	40.31	31.87
Comparison shop for investment	30.94	36.51	31.13
Comparison shop for major purchases ^a	64.61	71.35	64.60
Review magazines before a major purchase	38.89	42.94	37.10
Read about money management through			
magazines ^a	26.52	39.27	30.40

- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

Bill payment. Paying bills on time is important for a variety of reasons: consumers can avoid late fees (and thus save money) and prevent negative information from appearing in their credit reports. Having no derogatives on their credit reports, in turn, can mean lower interest rates on credit and lower insurance rates. And, for the military, it means retaining security clearances and not having to return from deployment. In the baseline survey, among those with a credit card, one out of three (34%) reported paying a credit card bill late and more than one-fourth (26%) reported paying some other bill late. In the follow-up survey, the proportion of those reporting a late credit card bill was up to 35% (among those with cards), and the proportion reporting other late bills had risen to more than one-third (36%). Among the comparison group, 39% of those with credit cards reported paying a credit card late and 39% reported paying other bills late. It is sobering to note that one out of four had been called by a bill collector. These proportions, however, were not statistically different among the survey groups.

Table 6. Bill Payments

In percentages except where noted

	Financial Educatio	Comparison	
Within the last 6 months	Baseline	Follow-up	Comparison Group
Returned from deployment for financial reasons	4.80	4.03	4.94
Been denied security clearance for financial reasons	8.80	4.88	7.60
Fallen behind in rent/mortgage payments	4.89	3.66	5.02
Paid a credit card bill late	33.80	34.78	38.67
Been late in paying other bills ^c	26.21	35.64	39.42
Been called by a debt collector	23.85	24.41	26.30
Utilities were shut off due to nonpayment	9.38	7.26	8.75

- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

What is their planning horizon and saving behavior?

Some studies have shown that being more future-oriented is associated with savings behaviors (Hogarth & Anguelov, 2003; Hogarth, Hazembuller, & Wilson, 2006). Furthermore, most financial planners agree that having an emergency fund is a top priority for any newly-forming household, such as these young soldiers. With these ideas in mind, the survey asked respondents about their planning horizons and aspects of their savings behaviors, including having an emergency fund and planning for retirement.

Planning horizon. Nearly equal proportions of soldiers in the baseline survey reported that their planning horizons for saving and spending were the next few months (28%), the next year (21%), the next few years (25%) and more than 5 years (26%), with about 9% of the later group saying their horizon was longer than 10 years (Table 7). In the follow-up survey, fewer reported a planning horizon of the next few months (24%), and more reported horizons of the next few years (30%); 12% reported a horizon of longer than 10 years. Among those in the comparison group, one-third (34%) had a horizon of the next few months, and about one-fifth reported the next year (22%) or the next few years (18%); 12% had a horizon of longer than 10 years.

Table 7. Planning Horizons

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
The time period most important in planning savings & spending ^b			
The next few months	28.72	24.06	33.94
The next year	20.74	22.46	21.66
The next few years	25.00	30.48	18.41
At least 5 years from now	7.98	3.21	5.78
The next 5 to 10 years	8.51	7.49	8.30
Longer than 10 years	9.04	12.30	11.91

- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

Emergency fund. As a precursor to saving for an emergency fund, three-fourths (73%) of soldiers in the baseline survey had a savings account; this proportion held steady at 78% at the time of the follow-up study (75% of the comparison group had a savings account). In the baseline survey, about one-third (32%) of soldiers reported having an emergency fund; 38% reported having a fund in the follow-up survey, compared with 37% of the comparison group. Of those with a fund, amounts were relatively low with a median amount of about \$500 for all groups in the surveys. In the baseline survey, more than half (58%) reported having \$1,000 or less; by the time of the follow-up study, 46% reported having \$1,000 or less. About half (46%) of the comparison group reported having \$1,000 or less in their emergency fund.

Table 8. Emergency Fund

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
Have a savings account	73.33	78.35	75.61
Have an emergency fund	31.89	38.14	37.41
Amounts in emergency fund			
\$1 to \$1000	57.80	45.74	46.24
\$1001 to \$2000	6.42	5.43	9.14
\$2001 to \$3000	4.59	11.63	7.53
\$3001 to \$4000	3.67	4.65	3.23
\$4001 to \$5000	0.00	0.00	1.61
\$5001 and above	2.75	6.20	3.23
Provided actual amount (range \$100 to \$35,000)	24.77	26.36	29.03
Average amount in emergency fund	\$2375	\$2366	\$2866
Median amount in emergency fund	\$500	\$500	\$500

No significant differences in table

Savings habits. When asked about their usual savings habits, nearly two-fifths (44%) said they save regularly, while one out of eight of soldiers in the baseline survey (13%) said they spend all of their income; another two-fifths (39%) said they save any money "left over" at the end of the month (Table 9). By the follow-up survey, the distribution had changed – a higher proportion of soldiers reported spending all their income (24%), while about one-third (34%) said they saved what was left over at the end of the month and nearly two-fifths (38%) said they saved regularly.

The increase in those who say they spend all their income seems somewhat disheartening for a group that had financial education. But it is important to look at one other savings variable in conjunction with this "savings habit" question, and that variable is participation in the federal Thrift Savings Plan (TSP). In the baseline survey, only about one out of eight soldiers (13%) participated in the TSP; by the follow-up survey, 36% were participating. Thus, while these soldiers may say they are spending all their income, their take-home pay already accounts for saving for retirement.

Among the comparison group, one-third (31%) said they spend all their income, one third (33%) said they save what is left over at the end of the month, 31% say they save regularly, and another 6% save "other income." About one out of five (23%) participate in the TSP.

When asked how much they save, two-fifths (43%) of the soldiers in the baseline survey said they saved nothing; by the time of the follow-up survey, only one-third (32%) said they saved nothing (the proportion of non-savers in the comparison group was 41%). Among those who saved in the baseline survey, the median amount saved was between 3 to 4% of income, with one-fourth (24%) saying they saved 5% or more. In the follow-up survey, the median amount

saved was still between 3 to 4% of income, with 26% saying they saved 5% or more. The median amount saved among soldiers in the comparison group was between 2 to 3% of income, with about one-fifth (19%) saying they saved more than 5%.

Often the saving habit can be motivated by having a goal (Hogarth & Anguelov, 2003; Hogarth, Hazembuller, & Wilson, 2006; Rha, Montalto, & Hanna, 2006). Among soldiers in the baseline survey, one-third (32%) said they were saving for a short-term goal and 12% said they were saving for a home. In the follow-up survey, 35% said they were saving for short-term goals and 14% said they were saving for a home. Among soldiers in the comparison group, 36% reported saving for short-term goals and 15% were saving for a home.

Table 9. Savings Habits in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
Usual savings habits ^{ac}			
Don't save; spend all income	12.83	23.91	30.66
No regular savings; save what's left over at end of month	39.04	33.70	32.85
Spend work income, save other income	3.74	4.89	5.84
Save regularly by setting aside money each month	44.39	37.50	30.66
Have Thrift Savings Plan ^{abc}	13.44	35.94	23.27
The percent of income that goes to savings each month			
0%	42.54	31.91	40.67
0% up to 1%	8.29	7.45	6.72
1% up to 2%	7.73	11.70	9.33
2% up to 3%	6.08	9.04	13.06
3% up to 4%	8.29	5.85	5.60
4% up to 5%	3.31	8.51	5.60
5% or more	23.76	25.53	19.03
Have a specific account for saving for short-term goals	31.69	35.26	35.93
Have a specific account for saving for a home	11.54	13.90	15.07

a Significant at 0.05 between baseline and follow-up groups

Retirement savings. Younger persons have more time to plan and save for retirement, and are more able to take advantage of compounding. Thus, establishing the retirement savings habit early can have large payoffs in later life. Soldiers' participation in the TSP is discussed above, but there are other retirement savings that soldiers might have. In the baseline survey, about one-fourth (26%) reported having any kind of retirement plan; this included one in six (17%) with a 401k plan, and 6% with an IRA (Table 10). In the follow-up survey, nearly half

b Significant at 0.05 between follow-up and comparison groups

c Significant at 0.05 between baseline and comparison groups

(49%) reported having some type of retirement plan, including 22% with a 401k and 15% with an IRA. Among the comparison group, 34% had a retirement plan, 10% had a 401k, and 14% had an IRA.

Table 10. Retirement Plans

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
Have 401k retirement account ^{bc}	17.11	21.99	10.37
Have an individual retirement account ^{ac}	6.45	14.74	13.97
Have any type of retirement plan ^{ab}	26.04	48.70	34.30

- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

How do they manage their credit cards?

About two-fifths (40%) of the soldiers in the baseline survey reported having credit cards; by the time of the follow-up survey, this proportion had risen to 51% (55% of those in the comparison group had credit cards, Table 11). Of those with a card in the baseline survey, 53% reported that they always paid off their balance each month, 29% "sometimes" paid it off, and 18% were regular revolvers (they never paid off their card). In the follow-up survey, the proportion of those always paying off their balance dropped to 46%, the proportion of those who never paid off their balance remained steady at 17%; 37% said they sometimes paid off their cards, 33% said they sometimes paid off their card, and 22% said they never paid it off.

Table 11. Credit Cards

in percentages except where noted

	Financial Education Groups		Comparison
	Baseline	Follow-up	Group
Have credit cards ^{ac}	39.79	50.52	54.61
Of those with a credit card, how often do you pay off the balance owed on your Visa, MC, Discover, Optima or store cards? ^b			
Always or almost always	53.42	46.43	44.87
Sometimes	28.77	36.90	32.69
Never	17.81	16.67	22.44
Paid a credit card late in the last 6 months	17.64	20.32	24.91

- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

Are soldiers using fringe banking products and services?

The soldiers in this study may not have had as much chance to get into some of the deeper financial problems that one hears about from military financial counselors. Fewer than 7% of the baseline group and comparison group had used car title loans, payday loans, or pawn shops (Table 12). By the follow-up survey, most of the proportions had declined; and no one in the follow-up survey reported using a title loan.

One place where the course seemed to be effective was in helping soldiers better understand their life insurance needs. Respondents in the follow-up group were less likely to buy supplemental life insurance, which many in the military believe is not necessary.

One sign of financial distress is the need to use food stamps. About one out of 16 soldiers (6%) in the baseline group used food stamps; this proportion went down to 4% by the time of the follow-up survey, mirroring the proportion in the comparison group.

Another indicator of financial stress is the need to use credit, but being turned down. The proportion reporting that they had been turned down for credit rose from 14% of the baseline group to 17% of the follow-up group; 20% of the comparison group reported being turned down for credit.

Table 12. Fringe Banking Products and Services

In percentages except where noted

Within the last 6 months	Financial Educatio	Comparison	
	Baseline	Follow-up	Group
Used a title loan ^{ab}	3.26	0.00	3.93
Used a payday loan	5.43	2.09	5.02
Used a pawn shop to get cash	6.52	3.66	6.79
Used food stamps	5.98	3.66	3.94
Bought supplemental life insurance ^{ac}	13.11	4.19	3.94
Been turned down for credit	13.66	16.84	20.07

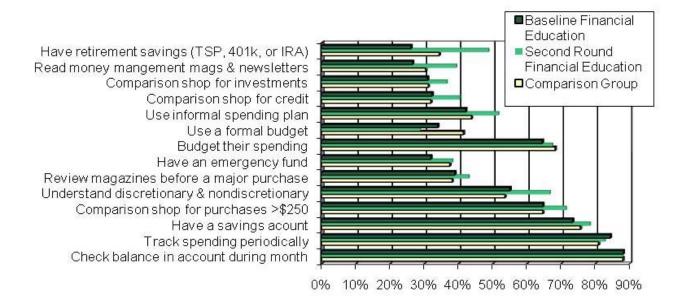
- a Significant at 0.05 between baseline and follow-up groups
- b Significant at 0.05 between follow-up and comparison groups
- c Significant at 0.05 between baseline and comparison groups

Good Financial Management Behaviors

We identified 13 positive financial management behaviors (see Chart 1). High proportions (at least 87%) reported checking the balance in their transaction accounts during the month, while lower proportions (30%) reported reading about money management or comparison shopping for investments (perhaps as expected, given the mean age of 22 to 24). On average, soldiers reported engaging in about 6 good behaviors; the median for the baseline and comparison groups was 6 while the median for the follow-up survey group was 7.

The differences between the soldiers in the baseline, follow-up, and comparison responses are small and fairly subtle. Soldiers in the follow-up survey were more likely to understand the differences between discretionary and non-discretionary spending, more likely to use an informal budgeting system, and, consequently, less likely to use a formal budget, either compared with themselves in the baseline survey or with the comparison group. They were more likely to have retirement plans, to read about money management, and to comparison shop for major purchases.

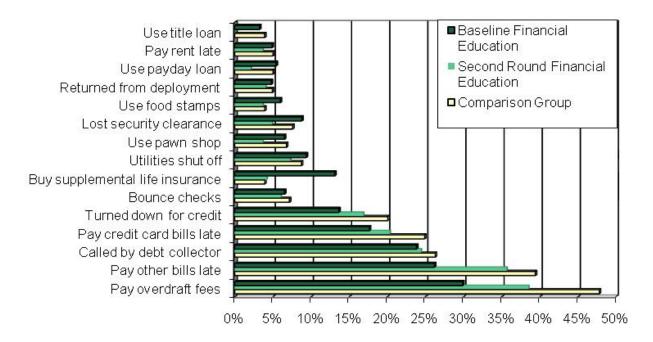
Chart 1. Good Financial Behaviors



Bad Financial Management Behaviors

The survey includes 15 measures of bad financial management behaviors (see Chart 2). About one-fourth (28%) reported none of these behaviors. The most-frequently reported bad behaviors were paying overdraft fees and paying non-credit card bills late. Substantially lower proportions reported using title loans or payday loans. On average, soldiers reported between one and two bad behaviors. For those reporting any bad behavior, the median was 3 for the baseline and comparison groups and 2 for the follow-up survey group.

Chart 2. Bad Financial Behaviors



There were a few differences among the groups – compared with their baseline surveys, lower proportions of those in the follow-up survey bought supplemental life insurance (which many in the military believe is not necessary), and used car title loans.

There are some bad behaviors, however, that might be considered worse than others. Paying an occasional overdraft fee or occasionally paying a bill late may not be as bad as losing your security clearance, or having your unit's sergeant or an officer called by a bill collector. In this index, certain behaviors were assigned an additional weight because they were considered to be particularly disruptive. These behaviors included being returned from deployment, losing a security clearance, having utilities shut off, or being called by a debt collector. While few of the soldiers in our survey had lost their security clearance or been returned from deployment (possibly because they had not been in the military long enough), it is sobering to note that nearly one out of four had been called by a debt collector.

How good - or bad - are they as money managers?

We sorted the respondents into three tiers of financial behaviors, both for good and bad behaviors; thus, each soldier had a ranking among the good behaviors and another ranking among the bad behaviors (Table 13). Among those in the baseline survey, one-fourth (25%) ranked high on good behaviors, two-fifths (42%) were ranked medium, and one-third (33%) ranked low. In terms of bad behaviors for the baseline group, about two-fifths (44%) ranked high, and nearly equal proportions ranked medium or low (29% and 28%, respectively).

By the time of the follow-up survey, about one-third (35%) were in the high group for good behaviors, nearly half (46%) were in the medium group, and about one in five (19%) were in

the low group. For the bad behavior rankings, the proportion in the high group dropped slightly to 42%, the proportion in the medium group held steady at 28%, and the proportion in the low group rose to 30%.

The proportions in the comparison group were most similar to the baseline group – one-fourth (25%) ranked high on good behaviors, 48% were in the medium group, and 27% were in the low group. Turning to bad behaviors, 45% were in the high group, 29% were in the medium group, and 26% were in the low group.

Table 13. Good and Bad Groupings

in percentages except where noted

	Financial Educa	Comparison	
	Baseline	Follow-up	Group
Good			
High ^e	24.8	34.6	25.1
Medium	41.8	46.1	48.1
Low ^d	33.3	19.4	26.8
Bad			
High	43.7	41.7	45.3
Medium	28.6	28.3	29.1
Low ^f	27.7	30.0	25.6

d Significant at 0.05 between baseline and follow-up groups

Ideally, soldiers would rank highly on the good behaviors and low on the bad behaviors. In fact, 7% of the baseline group and 10% of the comparison group were in this category; 14% of the follow-up group was in this "ideal" category (Table 14). The "worst case scenario" is the category of those who ranked low on good behaviors and high on bad behaviors. About one out of eight (13%) of the baseline group was in this category; by the time of the follow-up survey this had dropped to 9%. About one out of ten (11%) of the comparison group was in this worst-case category.

Table 14. Good versus Bad Behaviors

in percentages except where noted

		Fi	Comparison group							
		Baseline			Follow-up			Companson group		
	Good high				Good medium	Good low	Good high	Good medium	Good low	
Bad high	7.1	20.4	13.3	9.0	20.0	9.0	9.6	23.6	10.6	
Bad medium	7.1	17.3	7.1	11.0	15.0	5.0	5.8	16.3	8.2	
Bad low	7.1	9.2	11.2	14.0	13.0	4.0	9.6	7.7	8.7	

e Signifcant at 0.05 between follow-up and comparison groups

f Includes 28% reporting 0 bad behaviors

How do they perceive of themselves as money managers?

Some research has focused on the confidence that financial education builds in young people (Danes, 2004). Roughly half of the soldiers considered themselves good money managers (see Table 3). The natural question that arises is "does perception match reality?" That is, are those who think they are good managers really good? And, conversely, are those who don't think of themselves as good money managers less good? Those who thought of themselves as good money managers seemed to be a bit overconfident in their skills relative to their behaviors. Among those in the baseline survey who thought they were good money managers, about onethird (32%) ranked high on good behaviors and another 39% were in the medium group (Table 15). Among those who did *not* think of themselves as good money managers, only 13% were in the high group and two-fifths (41%) were in the low group. By the time of the follow-up survey, half (49%) of those who thought there were good money managers in fact ranked highly on the good financial behaviors, and more than one-third (38%) ranked in the medium group; only one out of eight (13%) who thought they were good managers were in the low group. Again the comparison group closely mirrored the baseline survey respondents. Among those in the comparison group who thought they were good money managers, one-third (33%) ranked high, 49% ranked medium, and 18% ranked low.

Respondents who did not think of themselves as good money managers seemed to have a more realistic perception of their behaviors. In the baseline survey, about half (51%) of those who didn't think of themselves as good money managers ranked high on bad financial behaviors; this proportion in the comparison group was 56%. In the follow-up survey, about two-fifths (42%) who didn't think of themselves as good money managers were in the high group.

Table 15. Perception of Management Skill versus Measured Behaviors

in percentages except where noted

in percent	ages en		nancial educ	Commonican aroun						
		Baseline			Follow-up			Comparison group		
	Overall	Good money manager	Not good money manager	Overall	Good money manager	Not good money manager	Overall	Good money manager	Not good money manager	
Good high	24.8	32.3	13.0	34.6	49.0	11.0	25.1	32.5	18.0	
Good medium	41.8	38.5	46.3	46.1	38.5	57.8	48.1	49.1	47.5	
Good low	33.3	29.2	40.7	19.4	12.5	31.3	26.8	18.4	34.4	
Bad high	43.7	34.3	51.1	41.7	35.0	42.3	45.3	29.6	56.3	
Bad medium	28.6	29.9	31.1	28.3	23.3	36.5	29.1	30.4	28.9	
Bad low	27.7	35.8	17.8	30.0	41.7	21.2	25.6	40.0	14.8	

Did the course make a difference?

When looking at the bivariate results, we see that there appear to be associations between having taken the course and a number of financial management behaviors. In order to test these associations in a more robust multivariate framework, we estimated probit models for selected behaviors that were significantly different in the bivariate analysis. In addition to taking the financial education course, we included independent variables measuring years in the military, pay grade, gender, education, race/ethnicity, marital status, pre-military experiences (aware of family's finances, having a high school financial education course, and having a savings account in high school), and having a credit card. Holding all these other variables constant, only two sets of behaviors were associated with the financial education course in this multivariate analysis – those who had the financial education course were more likely than the comparison group to report using an informal spending plan and less likely to report using a formal spending plan, and they were more likely to know the difference between discretionary and non-discretionary spending (Table 16) In addition, having had a finance or consumer education course in high school was associated with higher probabilities of saving regularly.

Table 16. Effects of Education on Selected Behaviors

	Use formal spending	Use informal spending	Know difference: discretionary &	Save regularly
	plan	plan	non-discretionary	
Had financial ed course	52**	.43**	.42*	18
Took finance or consumer ed course	.24	.11	.03	.39**
in high school				
Had savings account in high school	05	.39**	06	.20
Years in military (at follow-up)				
<1 (base)				
>1 but < 2	47*	.003	35	36
> 2 but < 3	75*	15	66	30
3 or more	84**	.27	30	45
Pay grade (at follow-up)				
E1 (base)				
E2	12	.45	09	22
E3	.17	.60	.26	.28
E4	.19	.72*	.30	.32
E5 or higher	.38	.71	.04	.50
Male	.10	07	.79***	50**
Education (at follow-up)				
High school or GED (base)				
Some college, tech certificate, or	.07	.40	.49***	35*
other				

⁷ We also modeled having a longer term planning horizon; that model was not significant. In addition, we estimated the models with interactions between the financial education course and taking a high school financial education course, as well as interactions between the financial education course and having a savings account in high school; the interactions were not significant.

2- or 4-year degree	12	07	.72*	44
Race/ethnicity				
White (base)				
African-American	.05	.30	63**	.21
Hispanic	.37*	.06	02	.36
All other races	.28	10	20	.53**
Marital status (at follow-up)				
Single (base)				
Married	1.01***	.16	.59***	12
Divorced, separated, widowed	.80**	.33	.53	31
Aware of parents financial situation	.04	19	.27	.41**
Think of myself as good money manager (at follow-up)	.66***	.09	.23	1.09***
Have a credit card (at follow-up)	.17	.14	.18	07
Constant	99	-1.27	-1.22***	91**
LR Chi ²	71.90***	33.86**	63.67***	75.41***
Pseudo R ²	.18	.08	.16	.19
N	299	298	296	304

Previous experience also seems to make a difference in financial behaviors (Table 17). Those who had a savings account in high school were more likely to use an informal spending plan, comparison shop for major purchases, and have a 401K. They were less likely to have paid an overdraft in the last 6 months and to never pay off their credit cards.

^{*} significant at .10
** significant at .05
*** significant at .01

Table 17. Effects of Experience (high school savings account) on Selected Behaviors

	Comparison	Comparison	Read money	Enrolled	Have	Have	Paid	Pay	Never
	shop for	shop for	management	in TSP	retirement	401K	overdraft	non-	pay off
	credit	major	articles		account		in past 6	credit	credit
		purchase					months	card	card
								bills	balances
								late	
Had financial ed course	08	.34	20	.25	.19	.38	14	.28	.22
Took finance or	.10	11	.16	08	03	.11	.26	.08	.00
consumer ed course in									
high school									
Had savings account in	.26	.34**	.27	02	.24	.67***	33**	13	48*
high school									
Years in military (at									
follow-up)									
<1 (base)									
>1 but < 2	.42	.40	.06	.41	.16	.10	.30	.38	.25
> 2 but < 3	.54	.60	40	86	43	.42	.66*	.50	.11
3 or more	.55	.97**	04	57	39	10	.65*	.89**	.20
Pay grade (at follow-up)									
E1 (base)									
E2	33	15	.38	.51	.47	02	1.11***	.43	.20
E3	33	47	05	05	07	31	.81**	.27	01
E4	13	41	.59	1.11**	.59	14	.59	.06	35
E5 or higher	80	63	.21	1.01*	.92*	.15	.15	46	24
Male	.40	18	.22	.23	01	26	02	20	47
Education (at follow-up)									
High school or GED									
(base)									
Some college, tech	02	.49***	.17	.17	.23**	.14	.11	.16	.47*
certificate, or other									
2- or 4-year degree	.80*	.70	.91**	.48	.86	1.15**	.45	.26	03

Race/ethnicity									
White (base)									
African-American	36	17	.32	.13	.41	.95***	.03	04	.40
Hispanic	11	24	11	.15	.15	.33	06	.10	17
All other races	.02	38	.18	.03	.08	.61*	31	25	77
Marital status (at follow-									
up)									
Single (base)			-				-		
Married	.35*	.23	.28	.21	.21	.17	.08	.05	.10
Divorced, separated, widowed	.32	.19	.40	.25	.24	.48	05	.28	63
Aware of parents financial situation	.41**	.42**	.57***	12	09	06	07	30*	17
Think of myself as good money manager (at follow-up)	.23	.20	.21	.33*	.41**	.45*	58***	48***	.52**
Have a credit card (at follow-up)	.34**	.29*	06	.12	.21	.05**	.17	.28*	36
Constant	1.88***	45	-1.94***	1.87***	-1.34***	2.14**	81*	51	.34
LR Chi ²	47.12***	51.66***	41.90***	34.47**	39.00***	36.52*	37.06**	31.71*	22.63
Pseudo R ²	.12	.13	.11	.10	.10	.16	.09	.08	.13
N	305	306	305	304	306	300	303	304	164

^{*} significant at .10

** significant at .05

*** significant at .01

Does this mean education "doesn't work?"

There are a number of possible explanations for our results. Our model may not be specified correctly. Also, given the number of observations, we may have over-specified some models for the sake of having comparable regression equations.

Asking different questions different variables could yield different results. For example, our measures are at two points in time, but we have not captured what may be happening between these two points. Previous research has shown that interim time periods can reveal a different story than only looking at the beginning and the end (Hogarth, 2007). By looking at the lapsed time between taking the course and the follow-up survey, we may be able to explore some of the effects of timing on behavior change. We plan to investigate this and other model specification issues in our future work with these data.

Our study focused on behaviors that soldiers either did or did not report – budgeting, saving, paying bills, and so forth. But we know that for some financial behaviors, people can be at different pre-action stages (precontemplation, contemplation, preparation; Xiao et al., 2004). We did not measure where soldiers were on the behavior continuum or whether they moved from one stage to another. For example, if a soldier in the class was moved from being unaware of the TSP (precontemplation) to thinking about signing up for the TSP (contemplation) to getting some of the forms and materials to study (preparation), we could say the class had an effect; however, we did not measure these more subtle behavioral changes. Thus, we may have missed some of the impacts of the financial education program by focusing on actual behaviors rather than also including planned behaviors.

Earlier education did seem to matter for some behaviors, which speaks to the importance of lifetime learning as well as the importance of a strong educational foundation. Furthermore, it may take time for some educational experiences to take hold. Just as the evidence of learning in high school showed up in our results, we might expect the evidence of learning from the AIT financial education course to become more apparent in the future.

Substantial portions of the class are devoted to car buying and TSP. ⁸ Differences in TSP behaviors were evident in the bivariate analysis, but these did not retain significance in the more robust multivariate framework. Analysis of the vehicle ownership data may reveal additional effects of the financial education program, which we plan to investigate in our future work.

It may be that the format of the educational experience matters – during the study, the class was delivered primarily as a lecture. Alternative formats, such as simulations, experiential events, activity-based learning, and case studies may increase the relevance as well as the retention of information. For example, in our interviews, unit leaders spoke of rent-to-own

⁸ Due to a number of constraints, the course was recently revised to be delivered as a one-day (8 hours) training (see the course outline in Appendix 4).

transactions as a source of financial stress for their troops. Providing a case study or simulation of a rent-to-own experience may be more effective at giving soldiers some resistance for rent-to-own sales pitches than viewing slides in a lecture.

For most financial education, "life" is the final exam. But for young people, testing is important to help set information so it can be retained and recalled when needed. There was no final quiz or test for the financial education class that served this function for these soldiers. Given the training environment most of these young men and women found themselves in, providing some type of quiz could help cement this information in their memories.

It may also be that the timing of this course was not optimum for learning. Most soldiers took this course on the weekends, rather than as part of their weekday training in AIT. As most high school and college instructors know, it is hard to find time in the curriculum to squeeze in a financial education course. And when the course is an add-on to an already busy and tiring schedule, the content may not sink in very well.

What are the limitations of this study?

First, we want to recognize the limits of our sample. Soldiers have a set of characteristics that may not be generalizable to the general public. Furthermore, even though our sample is primarily young people, our results are not generalizable to all young people.

Second, while we believe this study helps address the research issues of having a comparison group and documenting changes over time, it is not the "gold standard" of a randomized experiment that some have advocated for in this field. Our work is only a step in the right direction on that journey.

Third, we believe that education is necessary but it alone is not sufficient to establish financially secure families and households. Important complements include access to information, access to financial counseling and advising, and public policies that provide consumer protection. As stated by Sandra Braunstein in her testimony to the Committee on Financial Services, U.S. House of Representatives on April 15, 2008:

"Financially educated consumers are an important first line of defense in well-functioning markets. At the same time, it is important to recognize that financial education is not a panacea, and that there remains a need for effective regulation that is responsive to market evolutions to ensure that consumers are protected against abusive and fraudulent practices by unscrupulous players."

Appendix 1. Fort Bliss Project Timeline

2002 First meeting with DoD

Draft memorandum of understanding with DoD in June

2003 First meeting with DoD and AER to discuss specifics in January

Outline research design and survey

OMB Paperwork Reduction Act notice in Federal Register

Delving into web survey design

Project put in 2004-2005 budget cycle

Field test of written survey with soldiers

Work on examining responses and revising survey

2004 Mar 2004 - Board approves our research proposal

July 2004 - meet with new Base Commander

Summer 2004 - Developed vendor list to send RFPs

Statement of Work drafted in Summer of 2004, finalized in October

Sent out for bid in November, responses due in early December

2005 January 2005 - Vendor chosen

February 2005 - Trip to Ft. Bliss with Vendor

Through July- finalize survey and website

July 2005 - visit Ft. Bliss to meet new Chief of Staff and get trainers prepared for survey effort; promised computers in training room very quickly

August 2005 - Trainers begin to mention survey but no responses

September 2005 - Battalion pushes responses, 172 responses by November

September 2005 - BRAC (Base Realignment And Closure) Commission sends recommendation to President which includes moving several Air Defender (AD) brigades and the AD school to Ft. Sill in Lawton, OK in the next 5 years

Soldiers don't have enough computer access and don't know AKO addresses so we consider paper surveys

Six months and no soldiers responding electronically except during the push

2006 February 2006 - decided to go with paper surveys

March 2006 - first paper surveys taken

March 2006 - began email respondents regarding 6 month follow-up

April 2006 - surveys sent to Contractor from 3 sets of classes and ongoing comparison group respondents (include ~300 in treatment group and ~90 in comparison group)

May 2006 - after emails to several hundred respondents, only 4 did follow-up survey on line

June 2006 - first data file from Vendor

July 2006 - meet with new chief of staff

August 2006 - Survey modified slightly based on responses

September 2006 - cumulative numbers of follow-up on line respondents: 7

Oct 2006 - Sent email offering greater likelihood of winning iPod to on-line survey respondents

Nov 2006 - emails to the first 200 pencil and paper survey respondents now up to 9; ~700 first-wave responses

Nov 2006 - begin consideration of paper copy of follow-up survey

Dec 2006 training room partially wired, some soldiers able to take survey electronically

January 2007 - survey follow-up respondents via phone and ask why they did and their colleagues 2007 didn't

Feb 2007 - began paperwork for extension of contract with vendor

April 2007 - commenced effort for paper follow-up survey effort

April 2007 - forwarded 431 Regular Army names to Ft. Bliss to get physical addresses for soldiers June 2007 - Received 331 physical addresses for the 431 soldiers as well as email addresses for many

July 2007 - Mailed off surveys to soldiers along with email notice

August 2007 - Learn about the possibility of using "Umbrella Week" to survey soldiers; begin this effort

October 2007 - Requested 450 Army Air Defender soldiers for "follow-up" survey during umbrella week

November 2007 - second set of paper & email requests sent out to 400 more soldiers

Dec 2007 - 30 respondents to paper & email requests send out in July and November by the end of the December

Dec 2007 - Vendor contract extended for 15 months

2008

Of the ~730 paper follow-up surveys mailed out, more than 150 returned as undeliverable (many taking more than 3 months to find their way back to the Board; one mailed out on October 16, 2007 and returned as undeliverable on January 30, 2009)

January 2008 - Had ~360 soldiers take "Follow-up" survey during umbrella week

Planned focus groups with officers fall through as only non-command officers are made available

Feb 2008 - Attempted to follow up with officers by paper but only 2 return surveys

Spring 2008 - Umbrella week and all other survey responses compiled and coded by vendor

August 2008 - The first AD brigades leave Ft. Bliss for Ft. Sill

August 2008 – staff meet with contractor to examine contractor records and standardize/clean data

October 2008 - Requested 450 Army Air Defender soldiers for "follow-up" survey during umbrella week. Also (again) requested 2 sets of officers for focus groups

November 2008 - Last AIT surveys taken (giving us more than 3,500 baseline surveys beginning with responses in September of 2005)

2009 January 2009 - Had ~360 soldiers take "Follow-up" survey during umbrella week; unfortunately, most of these were training soldiers still in AIT (unlike Jan. 2008) who had not yet taken the financial education course

Conducted focus group with 9 leaders - 1 captain, 2 LTs, 4 SGTs, and 2 Specialists

Conducted individual interviews with 1 Major and 1 Captain

Had officers distribute surveys directly to their fighting forces soldiers

December 2009 - By year end, most AD units including the AD AIT school will have moved from Ft. Bliss to Ft. Sill

Appendix 2

Summary of Financial Education Impact Evaluations

Authors	Date	Audience/Program	Content
Shelton & Hill	1995	Low- to moderate- income first-time home buyers	Connection between financial education and participants' effective budgeting behavior and home-ownership preparedness
DeVaney, Gorham, Bechman, & Haldeman	1996	Women's financial management	Participants changed attitudes and selected financial management behaviors
O'Neill	1997	Money 2000	Improved financial situation; self- anchoring goals achieved (debts reduced, savings increased)
Boyce & Danes	1998	NEFE High School Financial Planning Program	Teens maintained increases in knowledge and skills; increased confidence in managing money
Garman, Kim, Kratzer, Brunson, & Joo	1999	Employees	Workplace financial education improves financial decision making and increases confidence in investment decisions
O'Neill, Xiao, Bristow, Brennan, & Kerbel	2000	Money 2000	Changes for 15 financial behaviors and attitudes
Vitt, Anderson, Kent, Lyter, Siegenthaler, Ward	2000	Various programs	Evaluation of the strengths and challenges of a variety of financial education programs.
Bernheim, Garrett, & Maki	2001	Students in states with financial education mandates	Mandates increase exposure to financial education; financial education associated with higher saving rates and higher net worth
Clancy, Grinstein-Weiss, & Schreiner	2001	IDA participants	Variations in content materials, quality of teaching, teacher/student ratio affect program evaluation; differentiate financial education in general vs. financial education as delivered by a specific program
Braucher	2001	Bankruptcy clients	Those attending debtor education were less likely to complete repayment programs
Hirad & Zorn	2001	Home buyers	Among a variety of pre-purchase educational tactics, counseling was associated with lower rates of 90-day delinquencies
Kim, Kratzer, & Leech	2001	Employees	Workplace financial education increases participation in 401k plans
Schreiner, Sherraden, Clancy, Johnson, Curley, Grinstein-Weiss, Zhan, & Beverly	2001	IDAs & American Dream Demonstration	Monthly net deposits per participant increased as hours of financial education increased from 0 to 12
Elliehausen, Lindquist, & Staten	2003	Credit counseling program	Those going through one-on-one counseling had higher credit scores and better credit management practices.

Brobeck, Clarke, Wooten, & Wilkening	2003	America Saves	Participants increased interest more than confidence and confidence more than knowledge in saving and wealth-building; motivation alone is not enough to make informed decisions and institute behavioral changes
Lyons & Scherpf	2003	Money Smart – low income families	Increased financial knowledge, better able to manage finances
Anderson, Zhan, & Scott	2004	Low-income families	Incentive is an important factor when designing financial education programs
Bernartzi & Thaler	2004	Save More Tomorrow; workers	Increases in 401k savings out of future raises; increased participation rates and increased contribution rates
Danes	2004	NEFE High School Financial Planning Program	Teens increased knowledge, skills, and confidence in managing money, and maintained these increases over a threemonth period
Lusardi	2004	Health & Retirement Study	Financial education (attending retirement seminar and asking for Social Security estimate) associated with increases in financial net worth and total net worth
Rand	2004	Welfare recipients and low income workers	Knowledge gains across several categories of financial management; increases/improvements in several financial management behaviors
Rupured	2004	Consumer Financial Literacy Program, University of Georgia	Better account management, increased savings
VISA	2004	Washington DC metro area high school seniors	High school seniors increased knowledge in money management, credit cards, and how to achieve financial goals with continuous improvement over a period of four months
Hagedorn	2004	1 st – 4 th graders in Cleveland and Chicago – Money Savvy program	Positively affected students' attitudes and knowledge about spending, saving, and investing money
Hogarth, Hilgert & Kolodinsky	2004	Community development credit union members	Study over 3 years; benefits of education for consumers, their families, their community
Hira & Loibl	2005	Employees of an insurance company	Better understanding of personal finances and future impacts; gains in confidence in future financial situation and increase company loyalty
Hagedorn	2005	Children in Cleveland, Washington State, Chicago, North Dakota (Money Savvy program)	Increased general knowledge about spending, saving and investing money for youth

Vitt, Reichbach, Kent, Siegenthaler	2005	Various programs	A progress report on financial education initiatives in the United States from 2000-2005
Lyons, Palmer, Jayaratne, & Scherpf	2006	Financial education providers (community educators & others)	A review of the evaluation capacity of community educators and others delivering financial education programs
Lyons, Chang, & Scherpf	2006	Low-income program participants	Behavior changes related to both education and level of experience; those with less experience reported greater behavior changes
Hagedorn	2007	Children in public schools in Memphis, TN	Similar results for other Money Savvy programs
State University of New York	2007	Economically- disadvantaged adult learners	Improved financial attitudes and increased saving; students improved continuously during and after the two year program
Elliehausen, Lundquist, & Staten (updated 2002 study results)	2007	Credit counseling clients	Counseling associated with positive change in borrower credit profiles, controlling for selection effects.
National Council on Economic Education (NCEE)	2007	Economic, personal finance, and entrepreneurship education in the United States	Studies/reviews changes in states' standards, implementations, course requirements, and testing of economic, personal finance and entrepreneurship education
Lusardi & Mitchell	2007	Baby Boomers	Researches how well people plan for retirement and if they change their actual behavior (plans) because of financial education. Shows that retirement planners had higher financial literacy and wealth at retirement than did non-planners. (shows that differences in savings can be explained by planning behaviors)
FDIC	2007	Money Smart Financial Education Curriculum for Consumers	Participants of the Money Smart (post- program) were more likely to open deposit accounts, save money in a mainstream deposit product, and use/follow budget plans. The program positively impacted consumer behavior, knowledge, and confidence, reported many months after the program.
Collins	2008	Clients of subsidized housing programs in Long Island	Financial education program stimulates additional savings, improves credit scores, and improves financial knowledge and behavior.
Willis	2008	Financial education researchers and educators	A review of the models of financial literacy education, the limitations of research studies on financial education that are used by policy makers and recommendations for alternative public policy models.

Soldier Financial Management Survey







The United States Army, Army Emergency Relief (AER), and the Federal Reserve Board thank you for completing this financial readiness survey. You will be asked to report information about your financial situation. Your responses are very important.

This information will help the AER and the Army develop the most helpful financial management training for you and other soldiers like yourself. You can make a difference by completing this survey.

This survey should take about 15 to 20 minutes. In the future may be contacting you with some follow-up surveys that should take about ten minutes.

All information is confidential. Your name will not be associated with your answers. Please answer all questions. For questions that ask for dollar amounts, use your best recollection. If you have questions about this survey, contact us at daniel.r.gorin@frb.gov (or support@qualtrics.com).

								Т	oday's Date
1. &	2. W	/hat is yo	our						
Las	Name: t Name: ail Addre								-
Basi	c House	hold Inf	formatic	n					
3.	Wha	t is your	pay gra	de? Circ	le one:				
E1	E2	E3	E4	E5	E6	E7	E8	E9	
W1	W2	W3	W4	W5					
01	02	О3	O4	O5	06	07	08	09	010
4. O	R	egular A		erve in th	ie:				
0		rmy Res							
0	IV	lational (Juai u						
5. O		ong have ess than	you ser 1 year	ved in th	ne milita	ry?			
0	M	lore than	n 1 year,	but less	than 2	years			
0	M	lore than	n 2 years	s, but les	s than 3	years			
0	3	or more	e years						
6.	What i	s your M	10s?						
7. O	-	u do AIT	「at Ft. B	lliss?					
0		lo							
8. O	What i Male	s your g	ender:						
0	Fem	ale							
9.	In wha	at year w	vere you	born?					

10.	In what month were you born?
11. O	Which of the following describes your ethnic background? (may select more than one) White
0	Black or African American
0	Hispanic-Latino
0	Asian
0	American Indian or Alaska Native
Ο	Other
12. O	Were you born in the United States? Yes
0	No
13.	If "No" to Question 12, in what year did you arrive in the U.S.?
14. O	Were your parents born in the United States? Yes
0	No
15. O	What is your marital status? Single
0	Married
0	Divorced
0	Separated
0	Widowed
16.	How many children do you have?
17.	How many children do you have:
Under a	age 5
Ages 5	-18
Ages 18	8 and up

18.	Including yourself, how many people:
	a. Live in your household? (Include spouse, dependants, roommates, etc. Do not include parents or guardians and siblings unless you still reside in their house)
	b. In your household are adults? (18 and older)
	c. In your household work full -or part- time?
19.	What is your household's zip code?
20. O	Do you live on base? Yes
0	No
21. O	Do you rent or own your residence? Rent
0	Own
22. O	What is your deployment status? Currently deployed over seas
0	Currently deployed in the US but not at my usual station
0	Currently deployed at my usual station
0	Not deployed
23. O	What is the work status of your spouse? I have no spouse
0	I have a spouse in the military
0	I have a spouse that works full time
0	I have a spouse that works part-time (<25 hrs/week)
0	I have a spouse that is not in the labor force
24. O	Do you also hold one or more civilian jobs? Yes
0	No
25	How many hours a week do you work at that joh?

0	I have no dependents		
Ο	Less than 1 month		
О	Between 1 and 3 months		
0	3 months or more		
27. O O	What is your highest level of educational attainment? High School Diploma GED		
0			
	Some college or technical certifications		
0	Two-year degree		
0	Four-year degree Other		
Pre	Military History		
28.	Please enter your ASVAB score, your GT score, or both		
ASV	AB Score		
GT S	Score		
29. O	How would you classify the saving behavior of your parents? Above average savers		
О	Average savers		
О	Below average savers		
0	Did not save		
30.	While growing up:	Yes	No
	My parents/guardians talked to me about their finances	0	0
	My parents/guardians talked to me about managing money	0	О
	My parents/guardians were good at managing their finances	0	0
	I was aware of my parents/guardians financial situation	0	0
	I regularly set aside money for savings	0	0
	I took a class in Personal Finance or Consumer Education in high school	0	Ο
	I had a savings account while in high school	0	0

I had a checking account while in high school

How much time in the last 6 months have you spent away from your dependents?

26.

0

0

31. While growing up:

	Yes	No	Don't know	No Spouse
My spouse took a class in Personal Finance or Consumer Education in high school	0	0	0	0
My spouse had a savings account while in high school	0	0	0	0
My spouse had a checking account while in high school	0	0	0	0

32. While growing up:

	Yes, in my name	Yes, I had access via parents or guardians	No	Don't Know
I had a debit card while in high school	0	0	0	0
I had a credit card during high school	0	0	0	0

33. While growing up:

	Yes, in his/her name	Yes, he/she had access via parents or guardians	No	Don't Know	No Spouse
My spouse had a debit card while in high school	0	0	0	0	0
My spouse had a credit card while in high school	0	0	0	O	0

- 34. Have you, or anyone in your household, filed for bankruptcy since January of 2000?
- O Yes, me
- O Yes, my spouse
- O Yes, my spouse and I jointly
- O Yes, a parent or guardian
- O Yes, someone else
- O No
- 34a. If yes, please identify the primary cause(s) for the bankruptcy? [Can pick more than one.]
- O Change in family status (such as divorce)
- O Health-related or medical expenses
- O Business failure
- O Financial distress from other causes
- O Unknown cause

Financial Products and Accounts You Have

 Please identify whether or not you have any of the following financial products or accounts

	Yes	No
Checking account	0	0
Savings account	0	0
Certificates of deposit (CD's)	0	0
Debit Cards	0	0
Credit Cards	0	0
Financial securities (e.g. stocks, bonds, mutual funds, insurance policies with cash value)	0	0
Individual retirement accounts, that is, IRA or Keogh accounts	0	0
Thrift Savings Plan (TSP) account	0	0
401(k) retirement plan account	0	0

	401(k) retirement plan account	0	0
36. O	Do you own or lease a car, truck or motorcycle? No		
0	Yes, lease		
0	Yes, own		
37. O	Do you have any outstanding vehicle loans? Yes		
0	No		
38.	If yes, how many vehicle loans?		
39. Ieas	For the most recent vehicle you bought or leased: (fill in third circle if you	ou have not ha	ıd a loan (
	If Purchase mark here: O If Lease, mark here: O If no Purch	nase or Lease:	O
	If purchase, what was the size of the loan? (leave blank for lease)		
	If purchase or lease, what was the amount of the down payment? —		
	What was the length of loan, or lease, in months?		
	What is the approximate number of months remaining on loan/lease?		
	What is your monthly payment amount?		

Current Financial Standing

40. Regarding you and/or your spouse:

How many credit cards do you use in an average month? [Mark one.]

0	None: I / We do not have credit cards		
0	None: I / We do not usually use credit cards		
0	1	0	6
0	2	Ο	7
0	3	O	8
0	4	0	9
0	5	0	10 or more

41. Regarding you and/or your spouse:

How many of your credit cards were not paid in full at the end of the last month, that is, how many cards carried a balance over to the next month? [Mark one.]

0	None: I / We do not use credit cards		
0	1	0	6
0	2	0	7
0	3	Ο	8
0	4	0	9
0	5	0	10 or more

42. Regarding you and/or your spouse:

After the last payments were made on your credit cards, roughly what was the balance still owed on these accounts?

- O I / We have no credit cards
- O Approximate balance: \$ _____
- 43. Thinking only about Visa, Mastercard, Discover, Optima and store cards, how often do you pay off the total balance owed on the account each month?
- O I / We have no credit cards
- O Always or Almost Always
- O Sometimes
- O Never

44. from	Approximately what is your family's monthly gross household income the following items: (Please enter 0s if there is no value)	e and recei	pts before taxes
	Your military salary	\$	
	Military allowances (for example for housing and food)	\$	
	Your additional labor income from other jobs	\$	
	Wages earned by your spouse	\$	
	Interest and Dividends	\$	
	Rental Income	\$	
	Child support and or alimony	\$	
	Other	\$	
45.	Approximately how much do you still owe on:		
	Your mortgage and other home loans:	\$	
	Your home furnishings:	\$	
	Student loans outstanding:	\$	
	Others: (list)	\$	
Finai	ncial Behavior		
46.	Do you and/or your spouse:		
		Ye	s No
	Jse a formal budget for spending in your household	0	0
	Jse an informal plan for spending in your household	0	0
	Have a specific account for saving for retirement (beyond the TSP)	0	0
	Have a specific account for saving for the purchase of a home	0	О
	Have a specific account for saving for other short-term purchases	0	О
	Understand the difference between discretionary and non-discretionary spending	0	0

47. Do you and/or your spouse: Have a formal debt management plan?

Have little or no debt

Yes

No

0

0

48.	Do you	and/or	your	spouse
-----	--------	--------	------	--------

	Never	Seldom	Moderately	A lot
Comparison shop for credit	0	0	O	0
Comparison shop for investments	O	0	0	0
Comparison shop for major purchases (items > \$250)	0	0	0	0
Review magazines like Consumer Reports before a major purchase (item > \$250)	0	0	0	0
Read about money mgmt. through newsletters & magazines like Kiplingers, Money, etc.	0	O	0	O
Use coupons when shopping for household items and food	0	0	0	0

before a	a major purchase (item > \$250))	U	U	U	U
Read ab	ad about money mgmt. through wsletters & magazines like Kiplingers, O O O O					
Use cou items ar	pons when shopping for house nd food	ehold	0	0	0	0
49.	Do you and/or your spouse cu	rrently ha	ve a check	ing account	?	
0	Yes					
0	No					
50.	If "Yes" to question 49, how lo	ong have y	ou had th	at account?		
0	Less than 6 months					
0	Between 6 months and 1 year	r				
0	For 1 to 2 years					
0	Longer than 2 years					
51. investm	Please tell us what percent of ents, savings account or other	•	ne each m	onth goes to	savings (via ⁻	ΓSP, IRA, bonds,
0	0%	0 2	% up to 3	%	0	4% up to 5%
0	0% up to 1%	O 3	% up to 4	%	0	5% or more
0	1% up to 2%					

52. Do you and/or your spouse:

	Yes	No	Not applicable
Check the balance in your checking account during the month	0	0	0
Track spending periodically	0	0	0
Use any on-line financial services (like bill paying and TSP account review)	0	0	0

53.	Do you and/or your spouse have an emergency fund (for meeting unexpected spending needs)?
0	Yes
0	No

54. Oth	How large is that emerge erwise, use the range.	ency fund?	Please provide the approx	imate amou	ınt if you	can.
0	\$1 to \$1,000	0	\$2,001 to \$3,000	0	\$4,00	1 to \$5,000
О	\$1,001 to \$2,000	0	\$3,001 to \$4,000	0	\$5,00	1 and above
0	Actual Amount \$					
55. mai	Approximately how man nagement. [e.g. bill paying, b		nonth do you or anyone in y naging savings and investin		nold spen	d on money
	these, how many hours do your ection notices, acquiring eme	•	5.		•	•
56. Cen	In the past 6 months ha nter (including Army Emergen Yes	•	ived financial help from the	e Family and	d Commu	ınity Services
0	No					
57.	What type of assistance	did you rec	eive?			
Red	cent Financial Activity					
58.	In the past 6 months, ha	ave you and	/or your spouse:		Yes	No
	Used a title loan				0	0
	Used a payday loan				0	0
	Used a pawn shop to get ca	sh			0	0
	Used food stamps				0	0
	Leased a car				0	0
	Leased furniture or a major	appliance			0	0
	Bought credit insurance				0	0
	Bought renters or homeown	ners insuran	ce		0	0
	Bought supplemental life ins	surance			0	0
	Borrowed against a life insu	rance policy	/		0	0
	Been turned down for credit	t			0	0
	Fallen behind in rent or mor	tgage paym	nents		0	0
	Bounced 1 or 2 checks				0	0

Bounced 3 or more checks

О

О

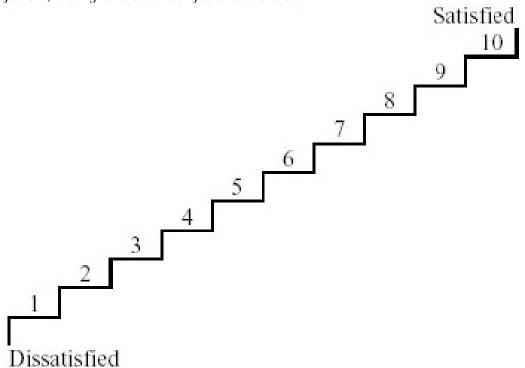
59. In the past 6 months, have you and/or your spouse:

	No	Yes, one or two payments	Yes, three payments
Made a late payment on credit cards?	0	0	0
Been late in paying other bills?	0	0	0
Paid an overdraft fee?	0	0	0

- 60. In the past 6 months, have you and/or your spouse: (Check all that apply)
- O Been called by a debt collector
- O Had utilities shut off for reasons of nonpayment
- O Returned from deployment for financial reasons
- O Been denied or lost security clearance for financial reasons
- O Filed for bankruptcy
- O Had a pay check garnished to pay a debt

Financial Self-Assessment

61. Using the stair steps below as a reference, select – by circling the number on the appropriate step - how satisfied you are with your present financial situation. The "1" at the bottom of the stair steps represents complete dissatisfaction. The "10" at the top of the stair steps represents complete satisfaction. The more dissatisfied you are, the lower the number you should select. The more satisfied you are, the higher the number you should circle.



62.	Do you consider yourself a good money manager?
0	Yes
0	No
63.	Why?
	How strongly do you agree with the following statement? est friend in the military is a good money manager.
0	Strongly Agree
0	Agree
0	Neutral
0	Disagree
0	Strongly Disagree
65. O	How would you classify yourself in terms of saving habits? Above average saver
0	Average saver
0	Below average saver
66.	How would you classify your spouse in terms of savings habits?
0	I have no spouse
0	Above average saver
0	Average saver
0	Below average saver
67.	Did you have any serious bill problems in the past 6 months?
0	Yes
0	No
/ 0	How do you fool about your family of improid condition over the past / months?
68. O	How do you feel about your family's financial condition over the past 6 months? Comfortable and secure
0	Able to make ends meet
0	Occasional difficulties
0	Tough to make ends meet
0	In over your head

69. you (and	In planning your saving and spending, which of the following time periods is most important to d/or your spouse)?
0	The next few months
0	The next year
0	The next few years

O At least 5 years from now

O The next 5 to 10 years

O Longer than 10 years

70. On a scale of 1 to 10, with 1 being extremely stressed and 10 being not stressed at all, how would you relate your financial stress level?

Overwhelming Stress		High Stress	•			Low Stress			
1	2	3	4	5	6	7	8	9	At All
О	0	О	О	О	О	0	0	0	0

71. On a scale of 1 to 10 where 1 is very dissatisfied, 5 is neither satisfied nor dissatisfied and 10 is very satisfied, how satisfied are you with:

Ver	y	ied	Neither				Satisified		
1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
	Ver Diss	1 2 0 0 0 0 0 0	Very Dissatisified 1 2 3 0 0 0 0 0 0 0 0 0	Very Dissatisified N 1 2 3 4 0 0 0 0 0 0 0 0 0 0	Very Dissatisified Neither 1 2 3 4 5 0 0 0 0 0 0 0 0 0 0 0 0 0	Very Dissatisified Neither 1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very Dissatisified Neither 1 2 3 4 5 6 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very Dissatisified Neither S 1 2 3 4 5 6 7 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very Dissatisified Neither Satisified 1 2 3 4 5 6 7 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

72. How frequently do you find yourself just getting by financially and living paycheck to paycheck?

All the time Never			Some	Sometimes				Rarely				
1	2	3	4	5	6	7	8	9	10			
О	0	О	О	О	0	О	О	О	0			

73.	Do concerns about	vour	personal	finances	interfere	with '	vour	work?
, 0.	Do concerns about	your	porsoniai	miunicos	1111011010	*****	you	WOIN.

O Yes

O No

74.	How do concerns about your personal finances interfere with your work?

- 75. Which of the following statements comes closest to describing your (and/or your spouse's) saving habits?
- O I don't save because I usually spend all my income
- O I have no regular saving plan, I save what's left at the end of the month
- O I spend my work income, save other income
- O I save regularly by putting money aside each month
- 76. Did you attend a one- or two-day personal financial management class during AIT?
- O Yes, I attended a personal finance class during AIT and I took a survey like this one
- O Yes, I attended a personal finance class during AIT but I don't remember a survey like this
- O No, I didn't have such a class nor do I remember such a survey
- 77. Over time, you and/or your spouse might have a chance to attend programs that provide economic or consumer education. These can be at work, at school, or in the community.

Examples might include work related saving and retirement seminars, school classes in personal finance, church-affiliated home-buying seminars, peer counseling sessions, reading personal finance magazines, or self-help books.

For the question below, we would like to know what experience you have had with such activities in the past six months: what the topic was, when you attended, the type of activity, how useful it was, and whether or not it changed any of your money management behaviors. When filling in the description blank, please give details.

WHO FOR	DATE (MM/YR)	<u>TOPIC</u>	HOW USEFUL		JL	CHANGED MY BEHAVIOR		
			More Than Avg.	Avg.	Less Than Avg.	Yes	No but Plan to	No
For You #1:			0	0	0	0	0	0
For You #2:			О	0	0	О	О	0
For You #3:			0	0	0	0	0	0
For Spouse	#1:		О	0	0	О	О	0
For Spouse	#2:		0	0	0	0	0	0
For Spouse	#3:		0	0	0	О	О	0

Thank you for completing the survey. If you have any additional comments, please place them on the back page.

Appendix 4

U.S Army Personal Financial Management Training Sponsored by Army Emergency Relief Agency Presented by San Diego City College

Lesson Topics	Class Period
Lesson 1: Financial Ethics	.75 hrs.
Lesson 2: LES (Leave and Earnings Statement)	.25 hrs.
Lesson 3: Developing a Spending Plan	1.0 hrs.
Lesson 4: The Essentials of Credit	1.0 hrs.
Lesson 5: Consumer Awareness	1.0 hrs.
Lesson 6: Car Buying	1.5 hrs.
Lesson 7: Meeting Your Insurance Needs	.5 hrs.
Lesson 8: TSP and Investing	2.0 hrs.

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