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## Assessing the Use and Usefulness of Current Financial Resources for Civilian Military Spouses

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*Most military installations have the resources available to operate as an independent community. However, immediate access to these resources tends to promote societal disconnection for the civilian military spouse (CMS). This disconnection leaves the CMS with many misconceptions when it comes to certain life skills. The Department of Defense (DoD) has attempted to answer these concerns with the introduction of well being plans to open the door for the CMS to seek personal financial assistance. However, this study found that CMSs preferred to seek financial assistance from formal, nonmilitary resources such as professional financial planner/counselor and informal financial resources such as family and other military spouses. The findings provided implications for marketing, financial literacy program consistency, and military retention.*

*Key Words: civilian military spouses, financial help-seeking, military finances*

### Introduction

Personal financial management is one life skill that has become a concern for military and government officials (Department of Defense [DoD], 2003; Keane, 2001; Tiemeyer, Wardynski, & Buddin, 1999; Varcoe, Lees, Wright, & Emper, 2003). This personal problem is not only costing the military financially but also costing the military its integrity and reputation (Government Accounting Office [GAO], 2005). In an effort to address these concerns, the Department of Defense (DoD) has initiated three well being programs that encompass various aspects of well being in order to enhance military living. These areas include life skills, community development, child-care, deployment readiness, and transition assistance in addition to a financial management component.

The first initiative introduced was the Strategic Well Being Plan in 1999. The goal of this plan was to reduce the economic and emotional strains on the family (Keane, 2001). The personal financial management component in this plan was to provide assistance to military families that would ensure successful management of their financial responsibilities and maintenance of financial stability

(Keane, 2001). The second initiative was the Social Compact in 2002 as a partnership between the DoD and its military families. The financial management component of this initiative was an improvement from the original Strategic Well Being Plan because it implemented a personal financial management requirement (Deputy Assistant Secretary of Defense, 2002). This requirement stated that all military members must attend a financial education course at the member's first duty station assignment. The third initiative was the Financial Readiness Campaign in 2003 with the Department of Treasury. Its objective was to target the junior enlisted personnel and provide their families with a chance to learn more about managing personal finances. The third initiative focused more on financially preparing military members for deployment, reassignment, and separation (Chu, 2003).

Even though financial readiness programs (DoD, 2003) and pre-deployment services are available, the effectiveness of such programs is unclear. As such, knowledge of the financial literacy level of military members and their spouses is lacking (Military Family Resource Center, n.d.). The critical questions are do civilian military spouses

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(CMS) seek help from financial service organizations when they have financial problems, and what is the availability and effectiveness of that help? For married military members, their families' financial well being is directly related to the military member's level of financial literacy (Burrell, Durand, & Fortado, 2003). However, there is limited research that exists on the financial literacy level of the CMS or on the relationship between the CMS's financial literacy and the family's financial well being.

Problems may be associated with reaching the CMS through these three initiatives. First, the introduction of more than one initiative, literally back-to-back, sends a message of policy inconsistency. Furthermore, the different branches are adopting one or a combination of the three initiatives and adapting it to meet the needs of their military personnel. This not only leads to conflicting information on guidelines and financial management techniques, but also lends to over-saturation in communication channels with misinformation, particularly for those military spouses who depend on external resources (e.g., Web sites) to address their financial questions. Second, all three initiatives target the primary service member (Chu, 2003; Deputy Assistant Secretary of Defense, 2002; Keane, 2001), leaving the CMS out of the loop. This may leave the spouse with an unmet need and, possibly, an inconsistent message with each service branch (Varcoe et al., 2003). Third, although traditional military culture and negative stigmas associated with help-seeking at military bases have not previously been introduced in the literature as factors that may prohibit the efficacy of personal financial education on military personnel and their families, they have been found to be an issue (Varcoe et al., 2003).

Two factors served as the justification for the current research. First, personal financial difficulties have affected the everyday lives of military personnel and their families (Knox & Price, 1995; Tiemeyer et al., 1999). Financial stress could cause poor physical and emotional health (Bower, 2003; Skinner, Zautra, & Reich, 2004; Taffel, 1997) and social difficulties (Crocker & Luhtanen, 2003; Szostak, 1998). Studies have also shown that worker productivity (Cunningham & Hyman, 1996; Garman, Leech, & Grable, 1996; Joo & Grable, 2000) and job satisfaction (Leung, Siu, & Spector, 2000; Szostak, 1998) are influenced by personal financial management. Military families are no different. Both the CMS and military member can experience a decrease in work productivity and job satisfaction when they are burdened with financial strain.

Second, the U.S. government pays the bill to recruit and train new military personnel. The need for recruits and the expense of compensating for failed recruitment and nonretention could increase military spending (GAO, 1998). Family life satisfaction has great bearing on whether or not the military member will continue employment with the military or separate from it (GAO, 1998). The GAO (2005) announced that the excessive financial mismanagement by military personnel is an expense accrued by the U.S. government. Because the cost to train and recruit the employee is a substantial cost to the government (GAO, 2005), military officials have a vested interest in determining if the CMS's financial help-seeking behavior might impact these financial losses. By surveying CMSs on their financial help-seeking behaviors, more effective information channels could be introduced to satisfy the financial literacy needs of the CMS, and the expense to the U.S. government could be minimized. Therefore, the purpose of the current study was to address the delivery method of financial literacy programs to accommodate the CMS based on financial help-seeking theory.

Military members with access to a computer may search the Internet for personal financial tools. Therefore, CMSs from the four major military branches were surveyed to profile their financial help-seeking behaviors in an effort to simplify the delivery channels for financial information and tools. Financial help-seeking was defined as an action initiated by an individual to seek advice from a secondary source on a personal financial issue (Grable & Joo, 2003). CMSs have numerous resources available to them for seeking information and assistance on personal financial issues. These include the personal financial management counseling offices available on large military installations, Internet sites, civilian personal financial planners and financial counselors, ombudsmen, family, and friends. Yet, with all the resources available, CMSs may not be seeking assistance with personal financial issues. Information provided by results of this research will allow military and government officials to identify possible steps to improve financial literacy of the CMS, including suggesting more effective financial education delivery channels.

### **Research Method**

This study utilized a cross-sectional survey design to assess financial help-seeking behaviors of CMSs. The research question was to what extent are CMSs utilizing the current financial education services provided by military installations. To accomplish this, a Web based survey was sent to CMSs to determine financial help-seeking

behaviors reflective of the DoD's three well being initiatives.

### ***Population and Sample***

The population consisted of CMSs assigned to military installations throughout the U.S. As of February 2006, the total DoD workforce consisted of 1,379,203 active duty personnel (Statistical Information Analysis Division, 2005). Active duty spousal information was lacking, but this population was estimated to be 823,384 based on a 2000 GAO statistic of 59.7% married active duty members (GAO, 2002). The GAO (2002) also separated the demographic characteristics for married joint service (5.7%) and married to civilian (47.2%). Because joint military spouses are active duty military personnel, they fall under the requirements for receiving a certain number of Personal Financial Management training sessions upon reaching their first duty station (based on service branch adoptions). Therefore, the population of interest for the present study was those who were married to the military member, which were approximately 388,637 CMSs.

Military installations are naturally clustered based on their service type. Military City (n.d.) lists information for 201 domestic U.S. military installations: 67 Air Force, 51 Army, 16 Marine, and 67 Naval. The target population was further narrowed to all domestic U.S. bases within this population who have family member populations greater than 1,000. Bases that house more than 1,000 family units generally provide family support services such as personal financial management. By narrowing the population by this criterion, there was a greater chance of sampling individuals who may have used the personal financial management services on-base.

Due to the difference in base numbers per service branch, the sample was initially selected based on its probability proportionate to size (Babbie, 2004). A set proportion of 25% generated the following number of bases systematically chosen from a list of 156 bases established to have a family member population greater than 1,000: 15 Air Force, 11 Army, 3 Marine, and 10 Naval. The list of bases was categorized by (a) service branch and (b) alphabetical order by state and installation name. The number three was randomly selected to systematically determine the base sample.

After selecting these bases, two ombudsmen from each base were selected and contacted by email for their assistance in sending the survey. The ombudsman email ad-

resses were obtained from published Web pages on official base Web sites. Seventy-eight ombudsmen were contacted using Websurveyor™ software.

### ***Procedure***

Between September 15, 2006, and October 25, 2006, data were collected from CMSs stationed at select military installations using a Web based survey. These CMSs were from the four primary service branches: Air Force, Army, Navy, and Marines. Seventy-seven military Ombudsmen (Navy and Air Force), Family Liaisons (Army), and Key Volunteers (Marines) from the selected bases were contacted via an email letter submitted through Websurveyor™ software. This would have resulted in a sampling frame of 780 CMSs. However, 10 email addresses bounced back as unknown resulting in a sampling frame of 680. Of the sampling frame, 206 responded to the email. Seven respondents were eliminated because they did not meet the requirements of the targeted study. This left the study with 199 viable respondents.

A pilot study was used to assess the effectiveness of a questionnaire adapted from a study by Grable and Joo (2003). The pilot target included CMSs whose military member was stationed at Fort Drum. This location was not one of the military bases originally selected for the study, and the population met the minimum 1,000 family unit requirement established. The pilot study was conducted using the online Websurveyor™ questionnaire to test the mechanics of the instrument. The minimum required number of respondents ( $n = 190$ ) was based on the number of variables established within each research question. The sampling frame was designed to obtain responses from 680 CMSs which provided a buffer for nonresponses. Table 1 provides a demographic breakdown of the sample characteristics.

A one-sample chi square test was conducted to assess the difference in the observed and expected sample data. As demonstrated by the chi square,  $\chi^2 (3, N = 199) = 64.46$ , the observed sample of service branch differed slightly from the hypothesized proportion of 25% from each branch. The effect of 0.11 indicated that the observed frequencies deviated moderately from the expected frequency. Therefore, the survey returns per service branch represented the size of each service branch. Websurveyor™ software maintained a count of the number of times respondents viewed the survey and the number who submitted them. According to this count, 379 CMSs viewed the survey whereas only 206 submitted them. The return

**Table 1. Demographics**

Variables	<i>n</i>	%
Gender		
Female	195	98.0
Male	4	2.0
Service branch		
Navy	88	44.2
Army	63	31.7
Air Force	35	17.6
Marines	13	6.5
Military Rate		
E1 to E6	114	57.3
E7 to E9	44	22.1
W1 to W5	3	1.5
O1 to O10	31	15.6
Other	3	1.5
Don't know	4	2.0
Time at base		
Less than 1 year	27	13.6
1 to 2 years	98	49.2
3 to 4 years	60	30.2
5 to 6 years	7	3.5
7 years or more	7	3.5
Housing status		
Homeowner	51	25.6
House or apartment renter	60	30.2
On-base military sponsored housing	40	20.1
Off-base military sponsored housing	46	23.1
Other	2	1.0
Children in household		
None	49	24.6
One	70	35.2
Two	48	24.1
Three	26	13.1
Four	6	3.0
Age		
18 to 20 years	6	3.0
21 to 24 years	40	20.1
25 to 29 years	53	26.6
30 to 34 years	51	25.6
35 to 39 years	33	16.6
40 to 44 years	10	5.0
45 to 49 years	1	0.5
50 or more years	5	2.5
Ethnicity		
Caucasian/White	143	71.9
African American	24	12.1
Hispanic	13	6.5
Asian/Pacific Islander	9	4.5
Other	2	1.0
Rather not say	8	4.0

Variables	<i>n</i>	%
Education		
High school or less	45	22.6
1 to 3 years of college	91	45.7
Graduated from 4 year institution	39	19.6
Post graduate study/degree	24	12.1
Employment status		
Full-time	39	44.7
Part-time	25	12.6
Not employed outside home	85	42.7
Household income		
< \$25,000	5	2.5
\$25,000 to \$29,000	18	9.0
\$30,000 to \$39,000	29	14.6
\$40,000 to \$49,000	39	19.6
\$50,000 to \$59,000	34	17.1
\$60,000 to \$74,000	36	18.1
\$75,000 to \$99,000	21	10.6
\$100,000 to \$124,000	13	6.5
\$125,000 to \$149,000	3	1.5
\$150,000 to \$174,000	1	0.5

rate was 31%, just short of the expected return rate of 40%. Of those who viewed the online survey, 54% submitted.

Because email surveys are seen to be intrusive and are often considered spam, a disadvantage was the possibility of a small rate of return. It is possible that the respondent to the email may not have been the intended recipient of the email message, and this posed a limitation. In order to minimize this limitation, the survey asked if the respondent was a military member. If the respondent responded affirmatively to this question, the survey was considered invalid and filtered out of the study.

#### **Data**

All data were analyzed using SPSS for Windows. To answer to what extent were CMSs utilizing the current financial education services provided by military installations, the question was divided into two analyses: (a) formal financial resources versus informal financial resources and (b) military financial resources versus non-military financial resources. Formal financial resources were resources staffed with financially trained personnel who are available to assist the CMS with personal financial management questions, educational tools, financial

counseling, and/or financial planning. These resources included insurance agents, professional financial planners/counselors, tax preparers, accountants, bankers, private attorneys, Judge Advocate General (JAG), military employers (personnel office), nonmilitary employers (personnel office), and base Morale, Welfare, and Recreation (MWR) or Family Services Center. Informal financial resources were noncertified or professional resources where CMSs can receive informal information to satisfy questions regarding personal financial management issues. These resources included ombudsmen, friends, family or other relatives, military installation Web sites, other Web sites, and another military spouse.

Military financial resources included both formal and informal information venues and had a direct connection to the military. These included ombudsmen, military installation Web sites, another military spouse, JAG, military employers (personnel office), and base sponsored MWR or Family Service Center. Nonmilitary financial resources included both formal and informal informational venues but had no direct connection to the military. These resources included friends, family or other relatives, nonmilitary Web sites, insurance agents, professional financial planners/counselors, tax preparers, accountants, bankers, private attorneys, and nonmilitary employers (personnel office). Targeted return based on the variables required a minimum of 170 participants.

### ***Reliability and Validity***

Grable and Joo (2003) developed the financial help-seeking scale used in the present study to profile the help-seeking behaviors of university faculty and staff. The study utilized their scale on profiling financial well being with a few modifications. The responses of each interest area were modified slightly to accommodate military installation delivery channels. An internal consistency reliability was computed for both the extent of use of the resources and the usefulness of the resources for CMSs. Cronbach's Alpha was reported as .78 (adequate for confirmatory purposes for exploratory) and .80 (good for confirmatory purposes for exploratory), respectively.

### **Utilization of the Current Financial Resources**

The research question addressed whether or not CMSs utilized the current financial resources available on military installations as well as the usefulness of these resources. In order to address this topic, a repeated measures ANOVA was first conducted on the extent of use of (a) formal resources, (b) informal resources, (c) military

resources, and (d) nonmilitary resources. A one-way within-subjects ANOVA was conducted for each category of financial resource with the extent of use over the past 12 months as the dependent variable. Each resource variable was measured on the extent of use over the last 12 months: 0 times = 0, 1 to 2 times = 1, 3 to 5 times = 2, 6 to 10 times = 3, and 11 or more times = 4. Pairwise comparisons were also conducted among the means for each resource group. A repeated measures ANOVA was also conducted on the usefulness of (a) formal resources, (b) informal resources, (c) military resources, and (d) nonmilitary resources. Each formal resource variable was measured on the reported usefulness by the CMS: 0 = does not apply, 1 = not useful at all, 2 = somewhat useful, 3 = fairly/moderately useful, and 4 = very useful. In order to adequately measure the usefulness of these resources, those who responded with "does not apply" were recoded as system missing. Again, pairwise comparisons were conducted among the means for each resource group. Sphericity refers to the equality of the variances of the differences between levels of the repeated measures factor. The ANOVAs were interpreted using multivariate tests to avoid the controversy surrounding the sphericity assumption because violations of this assumption can affect the conclusions drawn from an analysis.

### ***Extent of Use of Resource***

The results for the ANOVA indicated a significant extent of use effect [Wilkes's  $\Lambda = .51$ ,  $F(9, 190) = 20.11$ ,  $p < .001$ , multivariate  $\eta^2 = .49$ ] for formal financial resources. Based on the confidence intervals, there were limited visits with formal sources over the past 12 months. The most utilized formal financial resource was a tax preparer. Table 2 presents the significant comparisons of formal sources. The significant results of the pairwise comparisons resulted in 31 out of 45 pairs tested based on the Holm's sequential Bonferroni procedure. The result of the mean extent of use for accountant ( $M = 0.29$ ,  $SD = 0.58$ ) was significantly greater than the mean extent use of JAG, military employers, nonmilitary employers, and private attorneys. The use of bankers ( $M = 0.21$ ,  $SD = 0.49$ ) was significantly greater than the use of JAG, nonmilitary employers, and private attorneys. Professional financial planners/counselors ( $M = 0.48$ ,  $SD = 0.69$ ) were used significantly more than accountants, bankers, JAG, military employers, MWR, nonmilitary employers, and private attorneys. The mean extent use of insurance agents ( $M = 0.25$ ,  $SD = 0.58$ ) was significantly less than the mean extent use of professional financial planners/counselors and tax preparers and significantly greater than the use of

JAG, military employers, nonmilitary employers, and private attorneys. The use of JAG ( $M= 0.03$ ,  $SD= 0.17$ ) was significantly less than the mean extent use of MWR. The results also indicated military employers ( $M= 0.09$ ,  $SD= 0.41$ ) were used significantly less than MWR. Non-military employers ( $M= 0.07$ ,  $SD= 0.38$ ) were also used significantly less than MWR. The use of private attorneys ( $M= 0.06$ ,  $SD= 0.31$ ) was significantly less than the mean

extent use of MWR. Finally, tax preparers ( $M= 0.51$ ,  $SD= 0.63$ ) were used significantly more than accountants, bankers, JAG, military employers, and private attorneys.

The results for the ANOVA indicated a significant extent of use effect [Wilkes's  $\Lambda = .51$ ,  $F(5, 194) = 37.90$ ,  $p < .001$ , multivariate  $\eta^2 = .49$ ] for informal financial resources. It should be noted that there were limited visits

**Table 2. Pairwise Results of Significant Formal Pairs**

Pair	Extent of use ( $n = 199$ )			Usefulness			
	$t$	Holm's sequential Bonferroni	$d$	$n$	$t$	Holm's sequential Bonferroni	$d$
Accountant – JAG	6.08	.001*	0.43	33	3.04	.002	
Accountant – military employer	3.88	.002*	0.28	34	3.86	.002*	0.66
Accountant – MWR	0.42	.016		43	2.74	.002	
Accountant – nonmilitary employer	4.43	.001*	0.31	32	4.45	.001*	0.79
Accountant – private attorney	5.03	.001*	0.36	35	3.24	.002	
Banker – JAG	4.99	.001*	0.35	33	3.00	.002	
Banker – military employer	2.69	.003		37	4.00	.001*	0.66
Banker – nonmilitary employer	3.25	.003*	0.23	36	4.59	.001*	0.77
Banker – private attorney	3.95	.002*	0.28	34	2.49	.003	
Ins agent – JAG	5.55	.001*	0.39	32	1.61	.005	
Ins agent – military employer	3.47	.002*	0.25	35	1.89	.004	
Ins agent – nonmilitary employer	4.66	.001*	0.33	33	2.62	.003	
Ins agent – PFPC	-3.75	.002*	-0.27	54	-6.23	.002*	-0.85
Ins agent – private attorney	4.33	.001*	-0.31	34	0.14	.050	
Ins agent – tax preparer	-4.47	.002*	-0.32	49	-3.39	.002*	-0.48
JAG – MWR	-5.29	.002*	-0.37	30	-2.48	.003	
JAG – nonmilitary employer	-1.22	.004		30	1.28	.007	-0.61
Military employer – MWR	-3.88	.002*	-0.28	39	-3.14	.002	
Nonmilitary employer - MWR	-3.98	.002*	-0.28	34	-3.53	.002*	
PFPC – accountant	4.33	.001*	0.31	69	1.93	.003	
PFPC – banker	4.60	.001*	0.33	49	4.16	.001*	0.59
PFPC – JAG	9.10	.001*	0.65	35	4.89	.001*	0.83
PFPC – military employer	7.12	.001*	0.50	36	7.05	.001*	1.18
PFPC – MWR	3.35	.003*	0.24	49	5.90	.001*	0.84
PFPC – nonmilitary employer	7.22	.001*	0.51	33	6.82	.001*	1.19
PFPC – private attorney	7.76	.001*	0.55	36	4.26	.001*	0.71
PFPC – tax preparer	-0.54	.012		78	3.89	.002*	0.44
Private attorney – MWR	-4.61	.002*	-0.33	33	-1.68	.004	
Tax preparer – accountant	5.93	.001*	0.42	69	-1.00	.010	
Tax preparer – banker	5.66	.001*	0.40	51	2.12	.003	
Tax preparer – JAG	10.36	.001*	0.74	33	3.14	.002	
Tax preparer – military employer	7.63	.001*	0.54	35	4.03	.001*	0.68
Tax preparer – MWR	4.18	.001*	0.30	55	4.17	.001*	0.56
Tax preparer – nonmilitary employer	8.18	.001*	0.58	34	4.34	.001*	0.74
Tax preparer – private attorney	9.10	.001*	0.65	34	3.16	.002	

\* $p < .05$ .

with informal sources over the past 12 months. The pairwise comparisons were significant when controlling for familywise error rate across the 15 tests at the .05 level using Holm's sequential Bonferroni procedure. Table 3 presents the significant comparisons of informal sources. The significant results of the pairwise comparisons resulted in 11 out of 15 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean extent of use for family ( $M = 1.11$ ,  $SD = 1.09$ ) was significantly greater than the mean extent of use for military Web sites, another military spouse, and nonmilitary Web sites. Friends ( $M = 0.60$ ,  $SD = 0.92$ ) were used significantly more than another military spouse and military Web sites but were used significantly less than family. The results also indicated that ombudsmen ( $M = 0.06$ ,  $SD = 0.29$ ) were used significantly less than another military spouse, family, friends, military Web sites, and other financial Web sites.

The results for the ANOVA indicated a significant extent of use effect [Wilkes's  $\Lambda = .73$ ,  $F(5, 194) = 14.09$ ,  $p < .001$ , multivariate  $\eta^2 = .27$ ] for military financial resources. It should be noted that there were limited visits (less than two reported for each) with military sources over the past 12 months. Table 4 presents the significant mean extent of use and standard deviations for military resources. The pairwise comparisons were significant when controlling for familywise error rate across the 15 tests at the .05 level using Holm's sequential Bonferroni procedure. The significant results of the pairwise comparisons

resulted in 11 out of 15 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean extent of use for another military spouse ( $M = 0.48$ ,  $SD = 0.91$ ) was significantly greater than the mean extent use of JAG, military employers, and MWR. JAG ( $M = 0.03$ ,  $SD = 0.17$ ) and military employers ( $M = 0.09$ ,  $SD = 0.41$ ) were used significantly less than MWR. The use of military Web sites ( $M = 0.42$ ,  $SD = 0.79$ ) was significantly greater than the use of JAG, military employers, and MWR. Finally, ombudsmen ( $M = 0.06$ ,  $SD = 0.29$ ) were used significantly less than another military spouse, military employers, military Web sites, and MWR but were used significantly more than JAG.

The results for the ANOVA indicated a significant extent of use effect [Wilkes's  $\Lambda = .42$ ,  $F(9, 190) = 29.69$ ,  $p < .001$ , multivariate  $\eta^2 = .58$ ] for nonmilitary financial resources. It should be noted that there were limited visits with nonmilitary resources over the past 12 months. The pairwise comparisons were significant when controlling for familywise error rate across the 45 tests at the .05 level using Holm's sequential Bonferroni procedure. Table 5 presents the significant comparisons of nonmilitary resources. The significant results of the pairwise comparisons resulted in 34 out of 45 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean extent of use for accountants ( $M = 0.29$ ,  $SD = 0.58$ ) was significantly greater than the mean extent use of nonmilitary employers and private

**Table 3. Pairwise Results of Significant Informal Pairs**

Pair	Extent of use ( $n = 199$ )			Usefulness			
	$t$	Holm's sequential Bonferroni	$d$	$n$	$t$	Holm's sequential Bonferroni	$d$
Family – another military spouse	9.26	.003*	0.66	79	2.34	.006	
Family – military Web site	9.07	.003*	0.64	79	4.70	.003*	0.53
Family – other financial Web site	7.85	.003*	0.56	67	-0.26	.030	
Friend – another military spouse	2.69	.010*	0.19	76	-0.14	.050	
Friend – family	-8.10	.005*	-0.57	104	-3.93	.004*	-0.39
Friend – military Web site	3.13	.008*	0.22	67	1.90	.008	
Friend – other financial Web site	1.89	.012		59	-5.26	.004*	-0.68
Military Web site – other financial Web site	-1.06	.025		59	-5.26	.004*	-0.68
Ombudsman – another military spouse	-6.45	.004*	-0.46	45	-3.11	.005*	-0.46
Ombudsman – family	-13.57	.007*	-0.96	45	-4.03	.004*	-0.60
Ombudsman – friend	-8.18	.006*	-0.58	45	-3.04	.006*	-0.45
Ombudsman – military Web site	-6.56	.005*	-0.47	44	-1.42	.020	
Ombudsman – other financial Web site	-6.14	.004*	-0.44	38	-3.71	.005*	-0.60

\* $p < .05$ .

**Table 4. Pairwise Results of Significant Military Pairs**

Pair	Extent of use ( <i>n</i> = 199)		
	<i>t</i>	Holm's sequential Bonferroni	<i>d</i>
Another military spouse – JAG	7.08	.003*	0.50
Another military spouse – military employer	6.54	.003*	0.46
Another military spouse – MWR	3.22	.008*	0.23
JAG – MWR	-5.29	.005*	-0.37
Military employer – MWR	-3.88	.004*	-0.28
Military Web site – JAG	6.98	.003*	0.49
Military Web site – military employer	6.06	.004*	0.43
Military Web site – MWR	2.92	.010*	0.21
Ombudsman – another military spouse	-6.45	.006*	-0.46
Ombudsman – military Web site	-6.56	.007*	-0.47
Ombudsman – MWR	-4.67	.005*	-0.33

\**p* < .05.

attorneys. Bankers ( $M = 0.21$ ,  $SD = 0.49$ ) were used significantly more than nonmilitary employers and private attorneys. Family ( $M = 1.11$ ,  $SD = 1.09$ ) was used significantly more than accountants, bankers, professional financial planners/counselors, insurance agents, nonmilitary employers, other financial Web sites, private attorneys, and tax preparers. The use of professional financial planners/counselors ( $M = 0.48$ ,  $SD = 0.69$ ) was significantly greater than the use of accountants, bankers, nonmilitary employers, and private attorneys. The mean extent use of friends ( $M = 0.60$ ,  $SD = 0.92$ ) was significantly greater than the mean extent use of accountants, bankers, insurance agents, nonmilitary employers, and private attorneys. The results also indicated that friends were used significantly less than family. The use of insurance agents ( $M = 0.25$ ,  $SD = 0.58$ ) was significantly less than the use of professional financial planners/counselors and tax preparers but was significantly greater than nonmilitary employers and private attorneys. Other Web sites ( $M = 0.48$ ,  $SD = 0.97$ ) were used significantly more than bankers, insurance agents, nonmilitary employers, and private attorneys. Finally, tax preparers ( $M = 0.51$ ,  $SD = 0.63$ ) were used significantly more than accountants, bankers, nonmilitary employers, and private attorneys.

#### **Usefulness of Resource**

A one-way within-subjects ANOVA was conducted with the factor as the same formal financial resources and the dependent variable as the usefulness of the resources. The results for the ANOVA indicated a significant usefulness effect [Wilkes's  $\Lambda = .32$ ,  $F(9, 16) = 3.73$ ,  $p = .01$ , multivariate  $\eta^2 = .68$ ] for formal financial resources. The pairwise comparisons were significant when controlling for

familywise error rate across the 45 tests at the .05 level using Holm's sequential Bonferroni procedure. Table 2 presents the significant comparisons of formal sources. The significant results of the pairwise comparisons resulted in 17 out of 45 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean usefulness for accountants ( $M = 2.32$ ,  $SD = 1.36$ ) was significantly greater than the mean usefulness of military employers and nonmilitary employers. Bankers ( $M = 2.11$ ,  $SD = 1.17$ ) were used significantly more than military employers and nonmilitary employers. Professional financial planners/counselors ( $M = 3.00$ ,  $SD = 1.22$ ) were used significantly more than bankers, JAG, military employers, MWR, nonmilitary employers, private attorneys, and tax preparers. The use of nonmilitary employers ( $M = 1.35$ ,  $SD = 0.73$ ) was significantly less than MWR. Finally, tax preparers ( $M = 2.34$ ,  $SD = 1.28$ ) were used significantly more than military employers, MWR, and nonmilitary employers.

A one-way within-subjects ANOVA was conducted with the factor as the same informal financial resources and the dependent variable as the usefulness of the resources. The results for the ANOVA indicated a significant usefulness effect [Wilkes's  $\Lambda = .57$ ,  $F(5, 31) = 4.75$ ,  $p = .002$ , multivariate  $\eta^2 = .43$ ]. The pairwise comparisons were significant when controlling for familywise error rate across the 15 tests at the .05 level using Holm's sequential Bonferroni procedure. Table 3 presents the significant comparisons of informal sources. The significant results of the pairwise comparisons resulted in 7 out of 15 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean usefulness for family



**Table 5. Pairwise Results of Significant Nonmilitary Pairs**

Pair	Extent of use ( <i>n</i> = 199)			Usefulness			
	<i>t</i>	Holm's sequential Bonferroni	<i>d</i>	<i>n</i>	<i>t</i>	Holm's sequential Bonferroni	<i>d</i>
Accountant – nonmilitary employer	4.43	.002*	0.31	32	4.45	.001*	0.79
Accountant – private attorney	5.03	.002*	0.36	35	3.24	.002	
Banker – nonmilitary employer	3.25	.004*	0.23	36	4.59	.001*	0.77
Banker – private attorney	3.95	.002*	0.28	34	2.49	.003	
Family – accountant	9.25	.001*	0.66	60	-2.95	.002	
Family – banker	11.71	.001*	0.83	56	0.88	.007	
Family – PFPC	7.11	.001*	0.50	83	-5.15	.002*	-0.57
Family – insurance agent	10.91	.001*	0.77	63	3.18	.002*	0.40
Family – nonmilitary employer	13.32	.001*	0.94	37	4.66	.001*	0.77
Family – another financial Web site	7.85	.001*	0.56	67	-0.26	.030	
Family – private attorney	13.51	.001*	0.96	37	1.17	.005	
Family – tax preparer	7.06	.001*	0.50	94	-3.93	.001*	-0.41
PFPC – accountant	4.33	.002*	0.31	69	1.93	.003	
PFPC – banker	4.60	.002*	0.33	49	4.16	.001*	0.59
PFPC – nonmilitary employer	7.22	.001*	0.51	33	6.82	.001*	1.19
PFPC – private attorney	7.76	.001*	0.55	36	4.26	.001*	0.71
PFPC – tax preparer	-0.54	.012		78	3.89	.001*	0.44
Friend – accountant	3.97	.002*	0.28	47	-3.46	.002*	-0.50
Friend – banker	5.91	.001*	0.42	50	-0.67	.008	
Friend – family	-8.10	.003*	-0.57	104	-3.93	.001*	-0.39
Friend – PFPC	1.52	.006		62	-6.53	.002*	-0.83
Friend – insurance agent	5.07	.001*	0.36	52	1.82	.004	
Friend – nonmilitary employer	8.27	.001*	0.59	37	4.57	.001*	0.75
Friend – private attorney	8.23	.001*	0.58	35	0.64	.010	
Friend – tax preparer	1.13	.007		62	-4.61	.002*	-0.59
Insurance agent – PFPC	-3.75	.003*	-0.27	54	-6.23	.002*	-0.85
Insurance agent – nonmilitary employer	4.66	.002*	0.33	33	2.62	.002	
Insurance agent – private attorney	4.33	.002*	0.31	34	0.14	.050	
Insurance agent – tax preparer	-4.47	.003*	-0.32	49	-3.39	.002*	-0.48
Other financial Web site – banker	3.85	.002*	0.27	45	1.16	.006	
Other financial Web site – insurance agent	3.51	.003*	0.25	47	3.58	.005*	0.52
Other financial Web site – nonmilitary employer	6.46	.001*	0.46	35	5.27	.001*	0.89
Other financial Web site – private attorney	6.07	.001*	0.43	33	2.26	.003	
Tax preparer – accountant	5.09	.001*	0.36	69	-1.00	.006	
Tax preparer – banker	5.66	.001*	0.40	51	2.12	.003	
Tax preparer – nonmilitary employer	8.18	.001*	0.58	34	4.94	.001*	0.85
Tax preparer – private attorney	9.10	.001*	0.65	34	3.16	.002	

\**p* < .05.

(*M* = 2.44, *SD* = 1.00) was significantly greater than the mean usefulness of military Web sites. Friends (*M* = 2.13, *SD* = .97) were used significantly less than family. Also, the use of military Web sites (*M* = 1.76, *SD* = 1.04) was significantly less than the use of other financial Web sites. Finally, ombudsmen (*M* = 1.67, *SD* = .98) were used

significantly less than family, friends, another military spouse, and other financial Web sites.

A one-way within-subjects ANOVA was conducted with the factor as the same military resources and the dependent variable as the usefulness of the resources. The results for

the ANOVA did not indicate a significant usefulness effect [Wilkes's  $\Lambda = .69$ ,  $F(5, 19) = 1.72$ ,  $p = .179$ , multivariate  $\eta^2 = .31$ ].

A one-way within-subjects ANOVA was conducted with the factor as nonmilitary financial resources and the dependent variable as the usefulness of the nonmilitary resource. The results for the ANOVA indicated a significant extent of use effect [Wilkes's  $\Lambda = .23$ ,  $F(9, 16) = 5.92$ ,  $p = .001$ , multivariate  $\eta^2 = .77$ ]. The pairwise comparisons are significant controlling for familywise error rate across the 45 tests at the .05 level using Holm's sequential Bonferroni procedure. Table 5 presents the significant comparisons of nonmilitary sources. The significant results of the pairwise comparisons resulted in 20 out of 45 pairs tested based on the Holm's sequential Bonferroni procedure. The results indicated that the mean usefulness for accountants ( $M = 2.28$ ,  $SD = 0.58$ ) was significantly greater than the mean usefulness of nonmilitary employers. Bankers ( $M = 2.06$ ,  $SD = 1.15$ ) were used significantly more than nonmilitary employers. Family ( $M = 2.27$ ,  $SD = 0.95$ ) was utilized significantly less than professional financial planners/counselors and tax preparers but was utilized significantly more than insurance agents and nonmilitary employers. The use of professional financial planners/counselors ( $M = 3.00$ ,  $SD = 1.22$ ) was significantly greater than the mean usefulness of bankers, nonmilitary employers, private attorneys, and tax preparers. The mean extent of use for friends ( $M = 1.89$ ,  $SD = 1.32$ ) was significantly less than the mean usefulness of accountants, family, professional financial planners/counselors, and tax preparers but significantly greater than other employers. Insurance agents ( $M = 1.93$ ,  $SD = 0.82$ ) were used significantly less than professional financial planners/counselors and tax preparers. Other Web sites ( $M = 2.38$ ,  $SD = 1.11$ ) were used significantly more than insurance agents and other employers. Finally, the mean usefulness for tax preparers ( $M = 2.35$ ,  $SD = 1.30$ ) was significantly greater than the mean usefulness of other employers.

## Discussion

Although Grable and Joo (2003) addressed the population of university faculty and staff, similar findings occurred with the sample of CMSs. The repeated measures ANOVAs showed that CMSs had fewer than two visits on average in the last 12 months for any formal resource. The most used formal resource was a tax preparer. Professional financial planners/counselors had few respondents consult

them three to five times over the past 12 months. This study also analyzed the perceived usefulness of each. Financial planners/counselors and tax preparers were reported to be the most useful formal resource for CMSs. Those who selected "does not apply" when rating a resource's usefulness were eliminated from the assessment for this question. It should also be noted that Grable and Joo assessed their targeted sample in a similar manner but did not address the coding or inclusion of this category in their assessment. CMSs reported low usefulness scores on all formal resources. The financial planners/counselors, tax preparers, and certified public accountants were perceived to be the most useful resources.

According to the study, CMSs utilized informal resources more often. These informal resources were family members, friends, nonmilitary installation financial Web pages, and other military spouses. The informal resources were also assessed on their perceived usefulness with the exclusion of the "does not apply" category. These resources were also found to be somewhat useful to very useful with the highest perceived useful resources being family, other financial Web sites, another military spouse, and friends.

When examining military versus nonmilitary resource use over the past 12 months, the CMSs sought financial information less than twice, on average, from any military resource. Ranking by the highest average of use for military resources showed that CMSs sought financial information from another military spouse, military installation financial Web pages, and MWR more often. Ranking by the highest average use for nonmilitary resources showed that CMSs sought financial information from family, friends, tax preparers, other financial Web pages, and financial planners/counselors more often. The military and nonmilitary resources were also assessed on their perceived usefulness with the exclusion of the "does not apply" category. The military resources were found to be not useful at all with the highest perceived useful resources being another military spouse, MWR, and military installation financial web pages. The nonmilitary resources that were perceived to be somewhat useful and to have the highest useful rankings were family, tax preparers, financial planners/counselors, and friends. The results for formal, informal, military, and nonmilitary extent of use confirmed the finding by Orthner and Rose (2003) that although many military resources are available, CMSs are not utilizing them.

## Implications of the Study

This research presents implications that impact various areas of study. First, the results show that the military spousal segment of the U.S. population is willing to seek the counseling of a professional financial planner/counselor. This opens the field to a new market that may have been overlooked. Another implication that impacts the financial planning discipline is the potential to empower CMSs with the opportunity to assist in the financial education of other military spouses. The Military Spouse Fellowship for the Accredited Financial Counselor Program (Wiggins, 2006) appears to be a viable program that may reach these CMSs. However, this program needs to be advertised to this market for penetration and needs to be monitored for its effectiveness. Further, such a peer learning program needs to be consistent across all military installations. If the cost is an issue, then perhaps the military could assist by offering a voucher system. This voucher system would allow CMSs of those members ranked in the junior enlisted ranks to seek outside assistance from professional financial planners/counselors at little or no out-of-pocket expense.

Marketing implications also come from the results. Respondents noted that they were unaware of the military programs that were available to the CMS as well as the expectations of the programs at the service branch levels. The channels of communication extending from the DoD (who encodes an intended message) transmit a financial well being initiative to the intended audience (each party involved—service branch, installation, command, and finally, the military member and CMS) that must be received and successfully decoded. These channels seem to include so much noise (large number of financial resources, the inconsistent curriculum, and the lack of clarity of the well being campaign goals) that the intended recipient is unable to accurately decode and utilize the information. The DoD should refine specifically what their goals, objectives, and measurements are for the financial literacy initiatives and then communicate these clearly to the end user.

Finally, the DoD can minimize, and possibly eliminate, the financial burden that occurs when the military family mismanages their personal finances. These financial burdens include the revocation of security clearances and the retention of military personnel (GAO, 2005; Luther, Garman, Leech, Griffith, & Gilroy, 1997). However, a win-win situation exists for both the DoD and the military family upon refining the DoD financial educational goals

to include the financial education of CMSs and upon utilizing a consistent communication channel of personal financial literacy and services to the CMS. Another DoD implication rests on the services provided by JAG. The study found that CMSs of the U.S. Navy are less likely to discuss financial problems with JAG. Currently, CMSs can consult JAG personnel for certain financial related areas, such as wills, powers of attorney, landlord/tenant services, and family law, but their knowledge and skills are limited to military law (Judge Advocate General's Corps, n.d.). The expansion of JAG's legal work from their paralegal work could incorporate laws associated with financial and consumer issues arising outside the military. Examples could include consumer credit laws, predatory lending, consumer fraud and protection, real estate disclosure, and securities fraud.

## Recommendations for Further Research

The current study has opened the door for further research in an underserved market that needs financial literacy attention. The study assessed the usefulness of resources in an attempt to determine what resources (formal, informal, military, and nonmilitary) satisfy the needs of this market. Although assessment of financial satisfaction was beyond the scope of this study, examination of the financial satisfaction and financial literacy of CMSs could lead to a more refined financial education resource that best meets their needs. Therefore, further studies on long term financial goals, savings, and financial emergencies, for example, based on demographic variables could lend insight as to what focus each resource could have.

In addition, military and nonmilitary financial Web pages were reported as one type of resource that was not only used but also useful to the CMSs. Literature (Aleven & Koedinger, 2001; Aleven, McLaren, Roll, & Koedinger, 2003; Mercier & Fredericksen, n.d.; Nelson-LeGall, 1981) supports further research on financial Web sites (military versus nonmilitary) with respect to financial help-seeking and technology utilization by the civilian military spousal market. This medium should be studied to determine if military financial installations should include these pages on their official military Web site. Also, the interconnectivity that a CMS could have with regard to immediate response and engagement included in this type of resource should be studied as a medium for financial literacy.

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