Survey Mode Effects in Two Military Surveys

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Abstract

Survey mode effects refer to systematic variations in the data obtained using different modes of data collection. Mode effects have been widely reported in the literature, but few mode effects studies have focused on the military population, whose demographics differ from the general population. Furthermore, military surveys typically involve questions that are unique to the military and military families. As multimode surveys are becoming the norm, it is important to understand if and how survey mode may influence sample estimates. Two recent Army surveys of military populations adopted a mixed mode approach involving mail and Web-based data collections. This paper examines the mode effects in these two surveys. The analysis was conducted using cross-tabulations, chi-square tests, and logistic regression models.

Key Words: Mode Effects, Web Survey, Survey Mode

1. Introduction

Mode effects refer to systematic differences between data collected with different modes. Understanding mode effects is important for survey estimation, data analysis and interpretation. Many studies have demonstrated that survey responses differ between data collected with an interviewer-administered mode (i.e., telephone, face-to-face) and with a self-administered mode (i.e., paper-and-pencil, Internet) (Stockdale, Thornburg, and Aldridge, 2008; Currivan, Nyman, Turner, and Biener, 2004; Epstein, Barker, and Kroutil, 2001; Fendrich and Vaughn, 1994). Studies comparing responses to sensitive questions between self- and interviewer-administered survey modes have found that reporting of negative behavior (e.g., drug usage) is highest among self-administered modes, while reporting of positive behavior (e.g., donating to charity) is generally higher when survey data is collected through an interviewer-administered mode. This is thought to be due to the social desirability effect, in which respondents are more apt to provide a socially positive or desirable answer to surveys that are administered by an interviewer than those administered without the involvement of another person (Kreuter, Presser, and Tourangeau, 2008; Tourangeau, Couper, and Steiger, 2001). These differences have also been attributed to the perceived levels of confidentiality and anonymity that may vary by mode of survey administration, with self-administered modes providing higher levels of perceived confidentiality and anonymity than those conducted by an interviewer (Aquilino, 1994).

Mode effects have also been observed in multi-mode surveys with two intervieweradministered modes, such as face-to-face and telephone data collection modes (Aquilino and Lo, 1990), or with two self-administered modes such as Web and pencil-and-paper (Brener, Eaton, Kann, Grunbaum, Gross, and Kyle, 2006). The current study seeks to identify any possible mode effects in two surveys of a military population, both surveys administered in two modes of self-administration—Web and paper-and-pencil. For both surveys, mode effect analyses were conducted to examine whether systematic differences exist between the data collected on paper versus that collected via the Web.

After this introduction, Section 2 provides background information about the two military surveys. Sections 3 and 4 summarize the mode effects analyses based on these two surveys. Section 5 provides discussion of the findings and their relevance to the understanding of survey mode effects.

2. Background of the Two Military Surveys

Mode effect analyses were conducted using data from two military surveys: the *Sample Survey of Military Personnel (SSMP)* and the *Survey of Army Families (SAF)*. The *SSMP* is an omnibus survey that has been conducted for 65 years. It includes questions on key topics such as quality of life, job satisfaction, and career concerns. It is currently administered twice a year (spring and fall) by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) to a sample of Soldiers selected from among all Active Army personnel (excluding some privates). Prior to the fall of 2007, the *SSMP* had been administered solely as a paper survey. In the fall of 2007, in addition to the paper survey, an abbreviated Web version was administered to a parallel sample of Army personnel, as a test of the viability of changing modes.¹ As such, sample members were randomly assigned to the two modes.

The *Survey of Army Families (SAF)* has been administered approximately every four years since 1987 by the U.S. Army Family and Morale, Welfare and Recreation Command (FMWRC), in conjunction with ARI. The *SAF* includes topics pertaining to quality of life for Army families and is designed to obtain attitudes and opinions directly from the non-military spouses of Active Army Soldiers. Prior to the survey's 2004/05 administration, the *SAF* had been solely a paper survey. In 2004/05 a mixed-mode approach was incorporated, giving spouses the option of completing the survey on paper or via the Web. The two modes contained identical questions. Nearly 60% of the completed questionnaires were returned by postal mail and about 40% were completed online.

3. Mode Effects in the Fall 2007 SSMP

The analyses conducted to identify any potential mode effects in the Fall 2007 *SSMP* involved three steps. The first step was the comparison of demographic characteristics of the Web and paper respondents. This comparison is important because the demographic variables may be confounding factors that can contribute to potential differences by mode. Second, we compared the sample estimates of several key survey variables by mode, in order to identify any overall patterns of response differences by data collection mode. Third, we conducted logistic regression analysis to determine the independent effect of mode on several key survey variables. For this analysis, key survey variables served as the dependent variable and were recoded into dichotomous variables, while survey mode, along with other demographic variables, was included in the model as a predictor variable. The remainder of this section discusses the results of these analyses. All the referenced tables are presented at the end of the paper.

¹ The Web survey test resulted in such a low response rate from junior enlisted personnel that subsequent administrations of the *SSMP* have continued to include a paper version for this segment of the population and a Web survey for all other ranks.

3.1 Fall 2007 SSMP Demographic Characteristics by Mode

The Fall 2007 *SSMP* was administered to a sample of Soldiers, each randomly assigned to one of the two survey modes (i.e., Web and paper). The distributions of the responding sample over available demographic variables show notable variations between the two modes (see Table 1). These demographic variables include: deployment status, marital status, rank group, age, education, unit type, gender, and race/ethnicity. Chi-square tests show that the Web respondents are significantly different from the paper respondents along all demographic dimensions represented by these variables. For example, compared to the paper respondents, more Web respondents were deployed to Operations Iraqi or Enduring Freedom (OIF/OEF) (a difference of 14 percentage points). In general, Web respondents are more likely than paper respondents to be older, married, in higher ranks, and more highly educated. The gender and racial/ethnic distributions are slightly higher among Web respondents. These demographic differences are all statistically significant at the 95% confidence level. To the extent that the original assignment was random, these differences reflect differential response patterns by mode.

3.2 Fall 2007 SSMP Sample Estimates by Mode

After comparing demographic characteristics by mode, we next compared the sample estimates of several key survey variables by mode. The purpose of this analysis is to assess the main effect of survey mode on sample estimates. The main effect is the effect of an independent variable on a dependent variable averaging across the levels of any other independent variables.

Table 2 presents the estimated differences in the proportion reporting that they are satisfied or very satisfied with various items between Web and paper respondents. Most of the differences are statistically significant. Overall, the trend observed is that Web respondents tend to be more satisfied than paper respondents. Of the 58 estimated differences, 44 are positive, showing higher levels of satisfaction reported by Web than paper respondents. Only 14 are negative, showing the opposite pattern. However, among the negative differences, half are not statistically significant. Although most differences are statistically significant, they are typically not large. For example, only 13 estimated differences are greater than five percentage points.

Table 3 reports the differences in estimated proportions on six other key variables by mode. All of the observed differences are statistically significant, although the differences are not large. Web respondents tend to provide more positive responses on Army career intent, recommending others pursue an Active Duty career in the Army, and current level of morale. On the three stress variables, however, the direction of the differences is less consistent between the survey modes.

3.3 Fall 2007 SSMP Logistic Regression Results

Upon concluding that differences between survey modes exist in both demographic and key survey variables, we examined any potential impact mode may have on key survey variables while controlling for all available demographic variables. The reason this analysis is important is because the observed differences in sample estimates may be due to factors other than survey mode. For example, demographic differences may contribute to the differences in attitudes, opinions, and career intentions. The purpose of the logistic

regression analysis is to isolate the effect of survey mode on the estimates from potential confounding factors. Each of the identified Fall 2007 *SSMP* key variables was recoded into 0-1 variables to serve as the dependent variables, while the independent variables included survey mode as well as several demographic variables. The key survey variables included in this analysis are:

- Satisfaction with 58 various aspects of Army experience
- Army career intentions
- Recommend others pursue an Active Duty career in the Army
- Current level of morale (of respondent)
- Experiencing stress now in military job
- Experiencing stress now in family or personal life
- Experiencing stress now after return from OIF/OEF

The predictor variables in each of the logistic regression models include:

- Mode (paper or Web)
- Whether deployed to OIF/OEF
- Rank group
- Age
- Education
- Unit type
- Gender
- Race/ethnicity
- Marital status
- Spouse/significant other support of Army career

Table 4 presents the estimated logistic regression coefficient (B), significance level (p), and odds ratio (Exp(B)) of survey mode associated with each key survey variable. These statistics are not presented for the other predictor variables in the models. Since survey mode was coded as 0 for Web and 1 for paper, the coefficients represent the independent effect of paper on the logit, which is the ratio of the probability of a positive outcome (e.g. satisfied, high level of morale) to the probability of a negative outcome (e.g., dissatisfied, low level of morale). A negative B means that, other things remaining equal, being a paper respondent reduces the probability of reporting a positive outcome. Of the 64 estimated coefficients, 50 (or 78%) are negative, which is consistent with the pattern of variation shown in Table 2, reflecting more positive responses provided by Web than by paper respondents. For most of these models, the effect of mode is statistically significant $(\alpha = 0.05)$, which means that the observed mode effects are not due to random error. In particular, the significant mode effects are above and beyond the effects of the other independent variables included in the models. In other words, the mode effects are significant after the effects represented by the other independent variables are statistically controlled or removed.

The last column in Table 4 reports the estimated odds ratios. An odds ratio is a ratio of two odds, while the odds are defined as a ratio of two probabilities. In this case, the two odds are: (1) the odds of a positive outcome versus a negative outcome for paper respondents, and (2) the odds of a positive outcome versus a negative outcome for Web respondents. Therefore, an odds ratio of 0.752 (*Amount of enjoyment from my job*) means that the odds of being satisfied for a paper respondent are 75.2% of the odds of being satisfied for a Web respondent. An odds ratio of 1 would mean that paper and Web

respondents are equally likely to be satisfied. The greater the deviation is from 1, the larger the underlying effect of the independent variable on the dependent variable. The odds ratios reported here are rather close to 1, which means that the mode effects may be fairly consistent and significant but they are quite modest.

4. Mode Effects in 2005 SAF

The 2005 *SAF* mode effects analysis was also conducted in three steps. First, we compared the demographic characteristics between Web and paper respondents. Second, we compared the estimates of a set of key 2005 *SAF* variables between Web and paper respondents. Finally, we developed logistic regression models to assess the independent effect of survey mode on the key variables.

4.1 2005 SAF Demographic Characteristics by Mode

Table 5 compares the distribution between Web and paper respondents on a range of demographic variables. Overall, the two groups are distributed similarly on these variables. The differences tend to be very small, although some of the differences are statistically significant at the 95% confidence level. Of all the differences shown, only two are greater than three percentage points. Small differences may be significant because the sample size is large. For example, the gender distributions are significantly different between the two modes even though the absolute difference is less than one percentage point (0.6%). Based on these comparisons, we may conclude that differences in demographic characteristics are not likely to contribute to significant mode effects.

4.2 2005 SAF Sample Estimates by Mode

The comparison of the estimates of eight key 2005 *SAF* variables between paper and Web respondents is presented in Table 6. Most of the differences are statistically significant, but, again, the absolute differences are very small and probably not substantively important. The most noticeable pattern is that, with only one exception, all the observed differences are in the same direction, i.e., Web respondents appear to be more satisfied than paper respondents. But, for any practical purposes, the differences may be negligible.

4.3 2005 SAF Logistic Regression Results

After finding little difference between demographic and key variables by mode, we examined any potential impact mode may have on key survey variables while controlling for all available demographic variables. The absence of a main effect of survey mode on key *SAF* estimates does not prove the absence of mode effects, because potential confounding factors could have concealed the mode effects. The logistic regression analysis aims to estimate the independent effect of survey mode while controlling for potential confounding factors to the extent possible.

We fitted eight logistic regression models, using the key variables as the dependent variables and survey mode, along with all the available demographic variables, as independent variables. All of the key variables were recoded into dichotomous variables, with 1 representing satisfaction and 0 otherwise. The estimated regression coefficients, significance level, and odds ratios associated with survey mode are reported in Table 7. All but two of the coefficients are negative, indicating that paper respondents were less satisfied than Web respondents, a result consistent with the observation made in the

crosstabulation comparison analysis. Four out of eight coefficients are significant at the 5% alpha level. However, the magnitude of the coefficients tends to be very small; the odds ratios are all very close to unity. Overall, the 2005 *SAF* Web survey tends to elicit more positive responses than its paper version, but the impact is very small.

5. Discussion

Our analysis shows that mode effects exist for most Fall 2007 *SSMP* and 2005 *SAF* key variables evaluated. Web respondents tend to provide more positive answers to satisfaction questions, career intention questions, and other quality of life questions. However, in general, the magnitude of the observed mode effect is quite modest. For the Fall 2007 *SSMP*, the observed differences in sample estimates by mode may be partly attributed to the differences in demographic characteristics between Web and paper respondents. Nonetheless, survey mode does appear to have a significant effect on sample estimates above and beyond the demographic differences, which should be taken into account in interpreting the results of the survey.

For the 2005 *SAF*, the demographic profiles of Web and paper respondents are remarkably similar although survey mode was selected by the respondents. Based on the analysis of eight *SAF* key variables, we found that Web respondents were more likely to provide positive responses to satisfaction questions than were paper respondents. Like the *SSMP* analysis, these differences are very small and unlikely to be substantively important.

Few mode effects studies have focused on the military population, whose demographics are substantially different from the general population. Furthermore, military surveys typically involve questions that are unique to the military and military families. As multimode surveys are becoming the norm, it is important to understand if and how survey mode may influence sample estimates. Due to data limitations, we were not able to include in our analysis comparisons of response rates between the two modes. Further mode effects analysis of the two surveys may compare item response rates by mode. It may also be of interest to compare by mode the extent of satisficing, including response non-differentiation (straight-lining), and the selection of the "Don't Know" option.

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•		Difference
		(Web-Paper)
Deployed t	o OIF/OEF*	13.8%
Married*		6.9%
Rank Grou	p*	
	PV2-CPL	-8.7%
	SGT-SSG	-3.1%
	SFC-CSM	1.0%
	WARRANT	8.4%
	2LT-CPT	4.8%
	MAJ-COL	-2.5%
Age*		
	Under 25 years	-7.4%
	25-29 years	-1.7%
	30-34 years	2.4%
	35+ years	6.7%
Education*	s	
	No HS diploma or GED	-0.8%
	HS diploma or GED	-7.2%
	Some college	2.0%
	Bachelors degree	7.7%
	Graduate or professional degree	-1.8%
Unit Type*	*	
	Combat Arms	7.2%
	Combat Support/Combat Service Support	4.5%
	Other	-11.7%
Gender*		
	Male	2.2%
	Female	-2.2%
Race/Ethni	city*	
	Non-Hispanic White	4.0%
	Non-Hispanic Black	-0.9%
	Hispanic	-1.4%
	Other	-1.7%

Table 1: Fall 2007 SSMP Respondent Demographic Characteristics by Survey Mode

Note. Items with statistically significant differences (p<0.05) are denoted with *.

	Difference in Percent Satisfied (Web-Paper)
Based on your Army experience, how satisfied are you with:	· · · · ·
Amount of enjoyment from my job*	5.5%
Level of job fulfillment or challenge*	5.1%
Use of my skills and training on the job*	3.2%
Amount of personnel available to do work*	2.6%
Level of competence of co-workers*	-1.8%
Control over my job assignments	0.5%
Quality of equipment or supplies*	5.0%
Amount of equipment or supplies*	2.6%
Amount of paperwork*	-3.7%
Amount of regulation and discipline*	-4.1%
Number of quick response tasks	-0.4%
Length of working hours	0.6%
Geographic location of jobs	-0.7%
Level of fairness in how my performance is evaluated	-0.2%
Promotion or advancement opportunities*	4.2%
Level of recognition for my accomplishments	1.1%
Assignments to jobs offering technical or professional development*	9.0%
Opportunity to select a job, training, or station of my choice*	1.6%
Access to education or training	0.3%
Assignment to leadership jobs*	5.1%
Quality of leadership at your place of duty*	-3.1%
Amount of respect from superiors	-0.4%
Level of competence of superiors*	-3.4%
Amount of pay (basic)*	6.9%
Fairness of married vs. single pay*	6.4%
Special pay (such as bonuses)	1.2%
Level of educational benefits*	6.4%
Retirement benefits	-0.9%
Job security*	5.2%
Overseas duty*	2.7%
Amount of Basic Allowance for Housing (BAH)	1.3%
Living conditions overseas*	8.1%
Living conditions stateside*	7.9%
Quality of government housing*	5.3%
Availability of government housing	0.5%
Number of PCS relocations*	5.9%
Compensation for PCS moves*	5.4%
Commissary*	1.3%
Post exchanges (PX)*	1.5%
Quality of Army Child Care Programs*	3.7%
Availability of Army Child Care Programs*	-0.3%
Quality of Army Youth Services*	4.8%
Availability of Army Youth Services*	4.8%

Table 2: Fall 2007 SSMP Satisfaction Estimates by Mode

Table continues on next page.

	Difference in Percent Satisfied (Web-Paper)
Amount of time for leisure activities	<u>(web-1 aper)</u> 0.1%
Quality of recreational services*	3.9%
Availability of recreational services*	3.3%
Quality of military medical care*	2.9%
Quality of military dental care*	2.2%
Quality of family medical care*	1.9%
Availability of family medical care	0.2%
Quality of family dental care	-0.4%
Availability of family dental care	-1.1%
Amount of time separated from family*	-4.4%
Spouse career or work opportunities	0.2%
Dependent schools (DODDS)*	4.9%
Quality of Army family programs*	4.8%
Availability of Army family programs*	3.7%
Overall quality of Army life*	3.8%

Note. Items with statistically significant differences (p<0.05) are denoted with *.

	Difference (Web-Paper)
Army career intentions*	
Probably or definitely stay until retirement	4.5%
Would recommend others pursue Active Duty career in Army*	
Agree or strongly agree	2.5%
Current level of morale (of respondent)*	
High or very high	2.2%
Experiencing stress now in military job*	
No	-2.2%
Experiencing stress now in family or personal life*	
No	0.6%
Experiencing stress now after return from OIF or OEF*	
No	4.2%

Table 3: Comparison of Other Key Fall 2007 SSMP Variables by Mode

Note. Items with statistically significant differences (p<0.05) are denoted with *.

Table 4: Fall 2007 SSMP Logistic Regression Results

	В	р	Exp(B)
Based on your Army experience, satisfied/very satisfied with:			
Amount of enjoyment from my job	-0.285	0.000	0.752
Level of job fulfillment or challenge	-0.280	0.000	0.756
Use of my skills and training on the job	-0.124	0.003	0.884
Amount of personnel available to do work	-0.216	0.000	0.805
Level of competence of co-workers	0.083	0.035	1.087
Control over my job assignments	-0.044	0.221	0.957
Quality of equipment or supplies	-0.283	0.000	0.754
Amount of equipment or supplies	-0.187	0.000	0.829
Amount of paperwork	0.056	0.117	1.057
Amount of regulation and discipline	0.140	0.000	1.150
Number of quick response tasks	-0.110	0.002	0.895
Length of working hours	-0.061	0.099	0.940
Geographic location of jobs	0.032	0.457	1.033
Level of fairness in how my performance is evaluated	0.128	0.003	1.136
Promotion or advancement opportunities	-0.078	0.064	0.925
Level of recognition for my accomplishments	0.057	0.148	1.059
Assignments to jobs offering technical or professional	-0.459	0.000	0.632
development	-0.+57	0.000	0.052
Opportunity to select a job, training, or station of my choice	-0.085	0.018	0.919
Access to education or training	-0.085	0.042	0.919
Assignment to leadership jobs	-0.212	0.000	0.809
Quality of leadership at your place of duty	0.157	0.000	1.170
Amount of respect from superiors	0.076	0.067	1.079
Level of competence of superiors	0.179	0.000	1.196
Amount of pay (basic)	-0.287	0.000	0.751
Fairness of married vs. single pay	-0.174	0.000	0.840
Special pay (such as bonuses)	-0.131	0.001	0.878
Level of educational benefits	-0.467	0.000	0.627
Retirement benefits	-0.064	0.121	0.938
Job security	-0.569	0.000	0.566
Overseas duty	-0.188	0.000	0.829
Amount of Basic Allowance for Housing (BAH)	-0.089	0.014	0.915
Living conditions overseas	-0.400	0.000	0.670
Living conditions stateside	-0.361	0.000	0.697
Quality of government housing	-0.285	0.000	0.752
Availability of government housing	-0.023	0.564	0.977
Number of PCS relocations	-0.278	0.000	0.758
Compensation for PCS moves	-0.262	0.000	0.769
Commissary	-0.092	0.054	0.912
Post exchanges (PX)	-0.169	0.000	0.845
Quality of Army Child Care Programs	-0.224	0.000	0.800
Availability of Army Child Care Programs	-0.004	0.942	0.996
Quality of Army Youth Services	-0.310	0.000	0.734
Availability of Army Youth Services	-0.274	0.000	0.761

Table continues on next page.

	В	р	Exp(B)
Amount of time for leisure activities	-0.054	0.133	0.947
Quality of recreational services	-0.211	0.000	0.810
Availability of recreational services	-0.170	0.000	0.844
Quality of military medical care	-0.193	0.000	0.824
Quality of military dental care	-0.157	0.000	0.855
Quality of family medical care	-0.245	0.000	0.782
Availability of family medical care	-0.162	0.000	0.850
Quality of family dental care	-0.076	0.056	0.926
Availability of family dental care	-0.057	0.147	0.945
Amount of time separated from family	0.016	0.680	1.016
Spouse career or work opportunities	-0.090	0.029	0.914
Dependent schools (DODDS)	-0.260	0.000	0.771
Quality of Army family programs	-0.268	0.000	0.765
Availability of Army family programs	-0.187	0.000	0.829
Overall quality of Army life	-0.199	0.000	0.820
Army career intentions (Q8)			
Probably or definitely stay until retirement	0.135	0.004	1.145
Would recommend others pursue Active Duty career in			
Army (Q15)			
Agree or strongly agree	-0.107	0.003	0.899
Current level of morale (of respondent) (Q51)			
High or very high	-0.082	0.026	0.921
Experiencing stress now in military job (Q54a1)			
No	0.100	0.017	1.105
Experiencing stress now in family or personal life			
(Q54a2)			
No	0.001	0.979	1.001
Experiencing stress now after return from OIF or OEF (Q54a3)			
No	-0.261	0.000	0.770

Table 4: Fall 2007 SSMP Logistic Regression Results

Note. Mode coded as 0 (Web) and 1 (paper).

	Difference (Web-Paper)
Where currently living*	
Alaska or Hawaii	0.7%
CONUS	-2.7%
Europe	1.2%
Korea	0.2%
Other OCONUS	0.5%
Spouse living arrangement	
Living together with spouse at same location	0.8%
Living together with spouse, spouse deployed	-1.1%
Living apart at separate locations	0.0%
Number of months living at current location*	
0 months	0.0%
1-9 months	3.4%
10-19 months	-0.9%
20-29 months	-1.5%
30-39 months	-0.7%
40-49 months	0.0%
50-59 months	-0.1%
60+ months	-0.2%
Distance live from post	
Live on post	1.0%
10 miles or less	-1.3%
11-25 miles	0.1%
26+ miles	0.2%
Type of housing currently live in*	
On post (government)	1.3%
Off post (government)	0.6%
Off post (own)	-3.0%
Off post (rent)	0.6%
Other	0.6%
Gender*	
Female	-0.6%
Male	0.6%
Race/Ethnicity	
Non-Hispanic White	-0.5%
Non-Hispanic Black	-0.5%
Hispanic	0.6%
Other	0.3%
Age*	
Under 18 years	-0.1%
18-20 years	-0.4%
21-25 years	0.0%
26-30 years	2.2%
31-35 years	2.2%

 Table 5: 2005 SAF Demographic Characteristics by Survey Mode

Table continues on next page.

	Difference
	(Web-Paper)
36-40 years	0.3%
41-45 years	-1.9%
46-50 years	-1.3%
Over 50 years	-0.9%
Education*	
HS diploma, GED, or no HS diploma	-2.5%
Some college/training, no bachelors	3.7%
Bachelors degree	-0.3%
Graduate or professional degree	-0.9%
Married	-0.2%
Number of years married*	
Under 10 years	3.1%
10-15 years	0.3%
16-20 years	-1.3%
21-25 years	-1.3%
26-30 years	-0.4%
Over 30 years	-0.4%
Current employment status*	
Employed full time	1.4%
Employed part time	-1.3%
Not employed	0.0%

Table 5: 2005 SAF Demographic Characteristics by Survey Mode	

Note. Items with statistically significant differences (p < 0.05) *are denoted with* *.

Table 6: 2005 SAF Key Estimates by Survey Mode

	Difference (Web-Paper)
Satisfied (more or less, or very) with way things are going personally (Q55)*	-1.3%
Agree or strongly agree - Feel comfortable dealing with Army agencies (Q46a3)*	3.7%
Use post recreation programs and services at least once per month(Q72)	0.2%
Satisfied or very satisfied with support for family shown by leaders in high post or installation positions*	2.8%
Satisfied or very satisfied with support for family shown by Officers in my spouse's unit or place of duty*	1.5%
Satisfied or very satisfied with support for family shown by NCOs in my spouse's unit or place of duty	1.0%
Satisfied or very satisfied with Army job of spouse*	2.1%
Satisfied or very satisfied with deployments/amount of time spouse away from home*	0.2%

Note. Items with statistically significant differences (p<0.05) are denoted with *.

Table 7: 2005 SAF Logistic Regression Results

	В	р	Exp(B)
Satisfied (more or less, or very) with way things are going personally (Q55)	0.211	0.000	1.235
Agree or strongly agree - Feel comfortable dealing with Army agencies (Q46a3)	-0.157	0.000	0.855
Use post recreation programs and services at least once per month (Q72)	0.024	0.503	1.025
Satisfied or very satisfied with support for family shown by leaders in high post or installation positions	-0.127	0.001	0.881
Satisfied or very satisfied with support for family shown by Officers in my spouse's unit or place of duty	-0.051	0.152	0.950
Satisfied or very satisfied with support for family shown by NCOs in my spouse's unit or place of duty	-0.014	0.686	0.986
Satisfied or very satisfied with Army job of spouse	-0.134	0.000	0.875
Satisfied or very satisfied with deployments/amount of time spouse away from home	-0.065	0.128	0.937

Note. Mode coded as 0 (Web) and 1 (paper).