

MARCH 2005 STATUS OF FORCES SURVEY OF ACTIVE-DUTY MEMBERS: TABULATIONS OF RESPONSES

Introduction to the Survey

The *Human Resources Strategic Assessment Program* (HRSAP), located at Defense Manpower Data Center (DMDC), consists of both Web-based and paper-and-pencil surveys to support the personnel information needs of the Under Secretary of Defense for Personnel and Readiness [USD(P&R)]. These surveys assess the attitudes and opinions of the entire Department of Defense (DoD) community—active, Reserve, and civilian employees—on a wide range of personnel issues. The Web-based survey program, known as the *Status of Forces Surveys* (SOFS), provides timely data on active-duty and Reserve component members, and DoD civilian employees. The paper-and-pencil surveys are used to obtain data on sensitive topics (e.g., sexual harassment) and from populations who have limited Internet access (e.g., spouses of active and Reserve members).

This report contains tabulations of responses from the active-duty SOFS Web survey conducted February 22 to April 11, 2005. This introduction (1) summarizes the survey content, (2) defines the total population surveyed and the subgroups used in tabulations of responses, (3) summarizes the survey methodology,¹ and (4) provides details on how to use the tabulations. The tabulations and a copy of the survey items follow this introduction.²

Survey Content

The topics covered in the *March 2005 Status of Forces Survey of Active-Duty Members* included those in the *Status of Forces Surveys of Active-Duty Members Long-Term Content Plan*. The long-term content plan is at page 559. As indicated in that plan, there is a series of items included on all active-duty SOFS. These items include overall satisfaction, retention intention, perceived readiness, stress, Tempo, and permanent change of station (PCS) moves. In addition, items were included on deployments since September 11, 2001, deployments in the past 12 months, detailed Tempo and readiness, military and family life, financial health, programs and services, detailed stress, commitment, safety, and motorcycle usage. The survey was subdivided into the following 14 topic areas:

1. *Background Information*—Service, gender, paygrade, education, marital status, spouse employment status, race/ethnicity, dependents, and location (both geographic and on/off base).

¹ Details on survey methodology are reported by Riemer and Kroeger (2003) and DMDC (2005b).

² Refer to DMDC (2005a) to view a screen-shot version of the survey as it appeared on the Web.

2. *Satisfaction and Retention Intention*—Satisfaction with aspects of military life, overall satisfaction, likelihood to stay on active duty, and spouse/family support to stay on active duty.
3. *Tempo, Readiness, and Stress*—PCS moves, days worked overtime, time away from permanent duty station, the impact of time away on career intentions, individual and unit preparedness, and the level of stress in work and personal life.
4. *Deployments Since September 11, 2001*—Number of times deployed for operations, time spent away, location of deployments, days spent in a combat zone, combat involvement, deployment expectations, and stop-loss.
5. *Deployments in Past 12 Months*—R&R time and children born while deployed.
6. *Tempo/Readiness*—Reasons for working longer than usual, expectations of time away, coping with deployments, impact of deployments on children, and family care plans.
7. *Military Life*—Expectations of family and personal time and expectations of family and military life.
8. *Family Life*—Marital and personal problems within the unit, years married, number of times divorced, marital problems, and quality of relationship with spouse/significant other.
9. *Financial Health*—Financial problems and financial condition.
10. *Programs and Services*—Availability of and satisfaction with family support programs and services, reasons for not using Military OneSource, and number of times using Military OneSource via different modes, including Internet, email, and telephone.
11. *Stress*—Perceived stress, types of stressors and stress reducers, and preferred counseling for family and members.
12. *Commitment*—Commitment to serve.
13. *Safety*—Safety participation, support activities, and support climate.
14. *Motorcycles*—Owning and operating motorcycles and details on accidents and training courses.

Population and Reporting Categories

The target population for all active-duty SOFS consists of active-duty members of the Army, Navy, Marine Corps, and Air Force, excluding National Guard and

Reserve members, who (1) had at least 6 months of service at the time the questionnaire was first fielded and (2) were below flag rank when sampled. Results are presented for the total population, and by a variety of reporting categories. To form the reporting categories for the tabulations, respondents are classified primarily by survey self-report. If the self-reported data are missing, then DMDC's Active Duty Master Edit File data, at the time of sampling, are used to impute the subgroup classification. Survey results are tabulated by: Service, paygrade, location, education level, race/ethnicity, family status, gender, officer/enlisted by gender, and Service by paygrade. Definitions for collapsed reporting categories follow:

- *Service*—The categories include *Army*, *Navy*, *Marine Corps*, and *Air Force*.
- *Paygrade*—The *Enlisted* subgroup includes all enlisted paygrades (E1 – E9). The *Enlisted* subgroup is further broken into the following groups: *3 to 5 years* (i.e., first term decision window), *6 to 9 years* (i.e., second term decision window), *E1-E4s*, and *E5-E9s*. The *Officers* subgroup includes warrant officers (W1–W5) and commissioned officers (O1–O3 and O4-O6).
- *Location*—Geographic locations are collapsed into geographic regions as defined by the *Department of Defense Worldwide Manpower Distribution by Geographic Area* (DoD Washington Headquarters Services, 2001). The primary classification distinguishes *Overseas* from *US (including territories)*. *US (including territories)* includes those respondents with permanent duty stations located in the 50 states, District of Columbia, Puerto Rico, and United States territories or possessions. Within the *Overseas* classification, two regions can be reported separately: (1) *Europe*, which includes countries such as Bosnia-Herzegovina, Germany, Italy, Serbia, and the United Kingdom; and (2) *Asia and Pacific*, which includes countries such as Australia, Japan, and Korea. Housing locations are classified primarily for financial analyses based on whether respondents are provided housing directly or by allowance, rather than community analyses based on geographic location of the housing. From self-report data, *On Base* includes living in or aboard ship, in barracks/dorm/BEQ/UEPH/BOQ/UOPH³ military facilities, or in on-base military family housing. *Off Base* includes living in military family housing off base, in privately owned or rented housing, or in privatized military housing. If the self-reported data are missing, then on base and off base are imputed from record data indicating whether the respondent does not or does qualify, respectively, to receive Basic Allowance for Housing (BAH) or Overseas Housing Allowance (OHA).

³ Bachelor/Base Enlisted Quarters, Unaccompanied Enlisted Personnel Housing, Bachelor Officers' Quarters, and Unaccompanied Officers Personnel Housing, respectively.

Figure 1.
Geographic Locations Used for Analyses



- ***Education***—Respondents are classified based on self-reported educational attainment. *No College* includes anyone without some college credit. *Some College* includes those with some college credit, including a 2-year degree, but does not include those with a 4-year degree. *Four-year Degree* includes those with a 4-year degree and those with some graduate school, but no graduate or professional degree. *Graduate/Professional Degree* includes those with masters, doctorates, and first professional degrees (i.e., MA/MS/MEng/MBA/MSW/PhD/MD/JD/DVM).
- ***Race/Ethnicity***—Respondents are classified based on self-reported categories that are consistent with requirements of the *Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity* (1997). *Total Minority* includes all persons marking one or more of the races other than White and/or marking that they are Spanish/Hispanic/Latino. *Non-Hispanic Black* includes persons marking only Black or African American and not reporting being Spanish/Hispanic/Latino. *Hispanic* includes anyone reporting being Spanish/Hispanic/Latino, regardless of how they answered the question on race.

- *Family Status*—Respondents are classified based on self-reported marital status, spouse employment, and legally dependent children (ages 22 and under). Except for *Working Spouse*, missing data can be imputed from record data if the respondents do not answer these questions.⁴ *Single* includes those who have never been married or are divorced/widowed and have not remarried. *Married* includes those who are married or legally separated. *With Child(ren)* includes those with dependent child(ren) aged 22 and under, regardless of where the child(ren) live(s). *Working Spouse* includes those members whose spouse is working as measured by the U.S. Census Bureau's Current Population Survey (CPS) questions, and those in military service. *Dual Service Spouse* includes military members married to (including separated from) another military member (active or Reserve components).
- *Gender*—This category is self-explanatory.
- *Service by Paygrade*—The categories include each of the Services by enlisted and officer paygrade groups.

Survey Methodology

The survey administration process began on February 14, 2005, with the mailout of notification letters to sample members. This notification letter explained why the survey was being conducted, how the survey information would be used, and why participation was important. Throughout the administration period, additional email and postal reminders were sent to encourage survey participation. Data were collected on the Web between February 25 and April 11, 2005.

Single-stage, nonproportional stratified random sampling⁵ procedures were employed. The sample consisted of 30,939 individuals drawn from the sample frame constructed from DMDC's Active-Duty Master Edit File. Members of the sample became ineligible if they indicated in the survey or by other contact (such as telephone calls or emails to the data collection contractor) that they were not on active-duty service as of the first day of the Web survey (5% of sample).

Completed surveys (defined as 50% or more of the questions asked of all participants are answered) were received from 9,604 eligible respondents. The overall weighted response rate for eligibles, corrected for nonproportional sampling, was 37%.

⁴ Because there are no administrative record data for working spouses, this category cannot be imputed.

⁵ In stratified random sampling, all members of a population are categorized into homogeneous groups. For example, members might be grouped by gender and Service (all male Army personnel in one group, all female Navy personnel in another, etc.). Members are chosen at random within each group. Small groups are oversampled in comparison to their proportion of the population so there will be enough responses from small groups to analyze. Weights are used so that groups are correctly represented in the analyses.

Data were weighted to reflect the population of interest. These weights reflect (1) the probability of selection, (2) a nonresponse adjustment factor to minimize bias arising from differential response rates among demographic subgroups, and (3) a poststratification factor to force the response-adjusted weights to sum to the counts of the target population as of the month the sample was drawn and to provide additional nonresponse adjustments.

Table 1 shows the number of respondents and the portion of total respondents in each reporting group. Also shown are the estimated number of members and the portion of total members in each reporting group. Differences in the percentages of respondents and population for the reporting categories reflect differences in the number sampled, as well as differences in response rates.⁶

Tabulation Procedures

Tabulations⁷ are shown on a set of facing pages. The text of the question and response options are shown at the top of the even-numbered page, with only the question repeated on the odd-numbered page. To compress the width of columns in the tables, the response options are shown with a number, letter, or with DNA (i.e., *Does not apply*) and then that number, letter, or DNA is used as the column heading for the responses. The central feature of the tabulations is the percentage of members choosing the response options indicated by the column heading. Within a set of response options, percentages may not add to 100% due to rounding.

Where an item lends itself to presentation as an average, that average is also shown as a number estimate and in a bar chart. The averages lend themselves to a quick scan for reporting groups that differ from other similarly defined groups. Where a true response continuum is available (e.g., number of children or nights away), the mean of that continuum is presented; in other cases, the responses are averages of the numeric scales presented with the response options. Where there is a simple dichotomous response such as yes/no, only one percentage is presented. In this case, the bar chart represents that percentage.

On each page of tabulations, the first column lists the reporting group shown in that row. The second column, *Percent Responding*, lists the portion of the reporting group represented in the estimates in that row. In most cases, if this percentage is not 100, it is reflecting item nonresponse, and the table notes that "Percent responding are Service members who answered the question."

Not all questions will apply to every respondent. Where possible, the Web survey is programmed to skip respondents over questions that do not apply to them. For example, Q31 (Where are you currently deployed?) does not apply to those who

⁶ There is also a slight difference in treatment of missing data. Cases with missing data are included in counts of respondents, but are excluded in population estimates.

⁷ Details of data editing and preparation are provided by DMDC (2005a).

marked in Q30 that they were not currently deployed for 30 days or more. The notation to this question indicates the “Percent responding are Service members who answered the question and who were currently deployed for 30 days or more (Q30).”

The survey does not always skip questions that do not apply to the respondents. In the tabulations, *Does not apply* responses are typically included in the percentages in the *Percent Responding* column. For example, Q5 asked members to indicate how many years they had been in a relationship with their current significant other. Survey participants can indicate that the question does not apply. Q5 is also an example of where particular care has to be taken to interpret responses because Q5 was (1) within a skip pattern and (2) had an individual item response of *Does not apply*.

Combining Information From Multiple Items

Tabulations in this volume generally present data for individual survey questions. There are three types of exceptions. The first type of exception is where the results for multiple items are presented on a single set of pages, for example, number of dependents.

- In Q15, members are asked how many dependents they have in each of the age ranges. For this question, the tabulations show the percentage of the reporting category with dependents in that age range. The averages shown on these pages are based only on those with at least one dependent and, therefore, show the average number of dependents for those who have dependents.

The second type of exception is where members can provide multiple answers to a single question (e.g., race).

- In Q17, members are asked to mark one or more races. The tabulations show the percentage who responded that they were White, Black, American Indian/Alaska Native, Asian, and/or Native Hawaiian/Other Pacific Islander. Respondents who indicated more than one race are also shown in the percentage of More Than One Race Marked. For example, if a respondent indicated they were Asian and White, they were counted in the percentage as Asian, White, and More Than One Race Marked.

The third type of exception pertains to composite measures, which on this survey include spouse employment, quality of relationships, stress, and organizational commitment.

- Spouse employment indicators are derived from Q6-Q12 and are modeled to be comparable to employment measures used in the U.S. Census Bureau’s *Decennial Census* and *Current Population Survey* (CPS). Two

Table 1.
Number of Respondents and Estimated Population by Reporting Categories

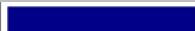
	Respondents		Estimated Population					
	Count	Percent	Totals		Percent		Max ME	
OVERALL AND SERVICE								
Total	9,604	100%		1,335,417	± 13,004	100%		
Army	2,977	31%		460,229	± 8,289	34%		± 1%
Navy	2,682	28%		350,959	± 6,055	26%		± 1%
Marine Corps	1,531	16%		164,512	± 4,919	12%		± 1%
Air Force	2,414	25%		359,717	± 6,635	27%		± 1%
PAYGRADE								
Enlisted	6,061	63%		1,117,713	± 12,780	84%		± 1%
3 to 5 Years of Service	1,956	20%		285,159	± 12,273	21%		± 1%
6 to 9 Years of Service	1,068	11%		177,540	± 10,030	13%		± 1%
E1 – E4	2,582	27%		524,865	± 11,635	39%		± 1%
E5 – E9	3,479	36%		592,848	± 9,405	44%		± 1%
Officers	3,543	37%		217,704	± 3,079	16%		± 1%
W1 – W5	410	4%		16,210	± 1,953	1%		± 1%
O1 – O3	1,548	16%		118,951	± 3,060	9%		± 1%
O4 – O6	1,585	17%		82,542	± 2,063	6%		± 1%
LOCATION								
US (Incl. Territories)	7,999	83%		1,109,329	± 17,415	83%		± 1%
Overseas	1,605	17%		226,089	± 12,000	17%		± 1%
Europe	792	8%		111,715	± 8,439	8%		± 1%
Asia and Pacific	728	8%		99,946	± 9,094	7%		± 1%
On Base	2,965	31%		538,450	± 17,565	40%		± 2%
Off Base	6,639	69%		796,967	± 16,521	60%		± 2%
EDUCATION								
No College	1,501	16%		315,614	± 16,727	24%		± 2%
Some College	4,389	46%		742,865	± 18,352	56%		± 2%
4-year Degree	1,977	21%		170,544	± 8,545	13%		± 1%
Grad/Prof Degree	1,737	18%		106,394	± 4,166	8%		± 1%
RACE/ETHNICITY								
Non-Hispanic White	6,081	63%		831,280	± 13,743	62%		± 1%
Total Minority	3,510	37%		502,520	± 11,024	38%		± 1%
Non-Hispanic Black	1,558	16%		234,779	± 10,854	18%		± 1%
Hispanic	1,138	12%		161,329	± 10,548	12%		± 1%

Table 1 (continued)

	Respondents			Estimated Population				
	Count	Percent		Totals		Percent		Max ME
FAMILY STATUS								
Single w/ Child(ren)	615	6%		68,731	± 6,096	5%		± 1%
Single w/o Child(ren)	2,525	26%		473,538	± 18,503	35%		± 2%
Married w/ Child(ren)	4,764	50%		563,822	± 15,391	42%		± 2%
Married w/o Child(ren)	1,700	18%		229,326	± 13,459	17%		± 2%
Working Spouse	3,599	37%		452,056	± 15,789	34%		± 2%
Dual Service Spouse	904	9%		105,133	± 8,187	8%		± 1%
GENDER								
Male	7,778	81%		1,142,165	± 13,176	86%		± 1%
Enlisted	4,870	51%		957,557	± 13,236	72%		± 1%
Officers	2,908	30%		184,609	± 2,958	14%		± 1%
Female	1,826	19%		193,252	± 6,183	14%		± 1%
Enlisted	1,191	12%		160,157	± 6,114	12%		± 1%
Officers	635	7%		33,095	± 1,167	2%		± 1%
SERVICE BY PAYGRADE								
Army Enlisted	1,923	20%		383,295	± 8,232	29%		± 1%
E1 – E4	842	9%		182,358	± 7,862	14%		± 1%
E5 – E9	1,081	11%		200,937	± 5,303	15%		± 1%
Army Officers	1,054	11%		76,934	± 2,123	6%		± 1%
O1 – O3	337	4%		36,653	± 1,878	3%		± 1%
O4 – O6	399	4%		27,986	± 1,364	2%		± 1%
Navy Enlisted	1,727	18%		300,335	± 6,048	22%		± 1%
E1 – E4	750	8%		132,311	± 5,213	10%		± 1%
E5 – E9	977	10%		168,024	± 4,814	13%		± 1%
Navy Officers	955	10%		50,624	± 1,613	4%		± 1%
O1 – O3	472	5%		28,307	± 1,425	2%		± 1%
O4 – O6	455	5%		20,054	± 696	2%		± 1%
Marine Corps Enlisted	861	9%		146,040	± 4,919	11%		± 1%
E1 – E4	380	4%		91,141	± 4,895	7%		± 1%
E5 – E9	481	5%		54,898	± 2,560	4%		± 1%
Marine Corps Officers	670	7%		18,472	± 832	1%		± 1%
O1 – O3	310	3%		10,330	± 775	1%		± 1%
O4 – O6	296	3%		6,489	± 598	0%		± 1%
Air Force Enlisted	1,550	16%		288,043	± 6,561	22%		± 1%
E1 – E4	610	6%		119,055	± 4,825	9%		± 1%
E5 – E9	940	10%		168,989	± 5,870	13%		± 1%
Air Force Officers	864	9%		71,674	± 1,556	5%		± 1%
O1 – O3	429	4%		43,660	± 1,892	3%		± 1%
O4 – O6	435	5%		28,013	± 1,267	2%		± 1%

sets of tabulations are presented. In the first set, labor force participation is shown for the spouses of those in the reporting category. The four categories contain percentages of (civilian) employed, unemployed, not in the labor market, and Armed Forces member. Those not in the labor market include those who are permanently or temporarily not working or not actively looking for work.⁸ The second set of data shows only those in the labor market. That is, the percent responding are married Service members who answered the items and whose spouses are in the labor market (civilian employed, unemployed but looking for work, and in the Armed Forces). The unemployment rates shown in these tables are the percent of those who need or want to work and are unemployed. These rates are comparable to those reported monthly by the Bureau of Labor Statistics based on the CPS data.

For the remaining composite measures, the individual items are presented first in the tabulations, followed by the composite measure(s) computed from the items.

- In Q70-Q72, members are asked about their personal relationship with their spouse/significant other. The composite measure includes survey items on members' agreement with statements regarding their relationship and overall happiness with spouse/significant other. Higher scores indicate members more strongly agreed with positive statements about their personal relationship.
- The Perceived Stress scale is measured by Q101. The composite measure includes items on the occurrence of types of emotions and stressful events. The scale ranges from 0 to 40, with higher scale scores indicating more stress. For additional information on the Perceived Stress scale, please see Cohen (1983).
- In Q106, members are asked about their organizational commitment. Three measures of organizational commitment (Q106) are presented. Affective commitment includes items on emotional attachment to, an identification with, and an involvement in an organization (Q106a, b, e, h, j, and m). Continuance commitment includes items on attachment based on the perceived costs associated with leaving an organization (Q106c, f, i, l, and n). Lastly, normative commitment includes items on sense of obligation to remain in an organization (Q106d, g, and k). Lower scores on these measures indicate less organizational commitment, while higher scores represent more organizational commitment.

⁸ Those who have not actively looked for work in the past 4 weeks are considered to be out of the labor market. This category includes some percentage of spouses who are in the midst of a PCS move and, therefore, only temporarily out of the labor market.

Margins of Error

The complex sample design required weighting to produce population estimates, such as percentages.⁹ This also means that the typical rules of thumb for interpreting how good an estimate is, such as the number of respondents, will overstate the reliability of the estimate. For this report, variance estimates were calculated using SAS[®] PROC SURVEYMEANS.

By definition, sample surveys are subject to sampling error. Standard errors are estimates of the variance around population parameters, such as percentages or means, and are used to construct margins of error (i.e., confidence interval half-widths). Percentages and means in these tabulations are reported with margins of error based on 95% confidence intervals. In order to compress the data display, only the maximum margin of error (Max ME) for the percentages in the row is shown. That is, the margin of error is calculated for each response option percentage and the largest of these is printed. For each average shown in these tabulations, its margin of error is also printed.

Estimates may be unstable based on a small number of observations or relatively large variance in the data or weights. Particularly unstable estimates are suppressed or annotated in these tabulations. The following rules are used:

- “0” indicates that no one in any reporting group selected the response option,
- “NR” indicates the estimate is Not Reportable because it was based on fewer than 30 respondents or the relative standard error was high,
- “NA” indicates the response option was Not Applicable for the reporting category because it was not selected by any respondent in that category,
- no Max ME is printed when all percentages in the row are shown as “NR,” and
- no margin of error is printed for an average when it is shown as “NR.”

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⁹ This differential weighting means that only certain statistical software procedures, such as PROC SURVEYMEANS, correctly calculate standard errors, variances, or tests of statistical significance.

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