

# DECEMBER 2004 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 November 22, 2004 to January 6, 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,<sup>1</sup> and (4) provides details on how to use the tabulations. The tabulations and a copy of the survey items follow this introduction.<sup>2</sup>

## **Survey Content**

The topics covered in the *December 2004 Status of Forces Survey of Active-Duty Members* include those in the *Status of Forces Surveys of Active-Duty Members Long-Term Content Plan*. The long-term content plan is at page 23. As indicated in that plan, there is a series of items that is 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, leadership, mentoring, organizational culture, career opportunities, organizational effectiveness, organizational commitment, willingness to recommend service, details on PCS moves, support services, top issues among returning members, and health insurance. The survey was subdivided into the following 15 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).

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

<sup>2</sup> 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*—Names of operations, time spent away, location of deployments, days spent in a combat zone, combat involvement, deployment expectations, and stop-loss.
5. *Leadership*—Assessments of immediate supervisor.
6. *Mentoring*—Background and helpfulness of mentors.
7. *Organizational Culture*—Zero defect, micromanagement, and careerism.
8. *Career Opportunities*—Military occupation preference, promotion expectations, satisfaction with aspects of career, and professional development programs (in-residence versus correspondence).
9. *Organizational Effectiveness*—Coworker and work satisfaction and workgroup effectiveness.
10. *Organizational Commitment*—Commitment to serve.
11. *Willingness To Recommend Service*—Likelihood to recommend service to a youth or child.
12. *Permanent Change of Station (PCS) Moves*—Problems with most recent PCS move.
13. *Support Services*—Number of times using Military OneSource via different modes including Internet, email, and telephone.
14. *Top Issues Related to Deployments*—Largest concerns among those who were recently and are currently deployed.
15. *Health*—Current health coverage, perception of average cost of health insurance, and interest in health savings accounts.

### ***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) have at least 6 months of service at the time the

questionnaire is first fielded and (2) are below flag rank. Results are presented for the total population, and also 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/UOPH<sup>3</sup> 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).

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<sup>3</sup> 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.<sup>4</sup> *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 November 10, 2004, 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 e-mail and postal reminders were sent to encourage survey participation. Data were collected on the Web between November 22, 2004 and January 6, 2005.

Single-stage, nonproportional stratified random sampling<sup>5</sup> procedures were employed. The sample consisted of 35,044 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 e-mails to the data collection contractor) that they were not in active-duty service as of the first day of the Web survey, November 22, 2004 (4% of sample).

Completed surveys (defined as 50% or more of the questions asked of all participants are answered) were received from 10,621 eligible respondents. The overall weighted response rate for eligibles, corrected for nonproportional sampling,

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

<sup>5</sup> 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.

was 39%. 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.<sup>6</sup>

### ***Tabulation Procedures***

Tabulations<sup>7</sup> 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

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<sup>6</sup> 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.

<sup>7</sup> Details of data editing and preparation are provided by DMDC (2004a).

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, supervisor satisfaction, careerism, work satisfaction, coworker satisfaction, workgroup effectiveness, 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					Max ME
	Count	Percent	Totals		Percent			
<b>OVERALL AND SERVICE</b>								
Total	10,621	100%		1,309,893	± 49,608	100%		
Army	3,647	34%		454,279	± 23,446	35%		± 2%
Navy	2,981	28%		343,001	± 29,857	26%		± 2%
Marine Corps	1,893	18%		156,903	± 8,071	12%		± 1%
Air Force	2,100	20%		355,710	± 31,109	27%		± 2%
<b>PAYGRADE</b>								
Enlisted	7,136	67%		1,101,477	± 45,212	84%		± 2%
3 to 5 Years of Service	2,171	20%		320,396	± 26,696	24%		± 2%
6 to 9 Years of Service	1,291	12%		180,725	± 14,110	14%		± 2%
E1 – E4	2,919	27%		519,755	± 42,054	40%		± 3%
E5 – E9	4,217	40%		581,722	± 20,064	44%		± 2%
Officers	3,485	33%		208,416	± 20,622	16%		± 2%
W1 – W5	382	4%		18,536	± 3,374	1%		± 1%
O1 – O3	1,474	14%		105,990	± 17,207	8%		± 2%
O4 – O6	1,629	15%		83,890	± 12,771	6%		± 1%
<b>LOCATION</b>								
US (Incl. Territories)	7,293	69%		1,067,149	± 50,226	81%		± 2%
Overseas	3,328	31%		242,743	± 18,974	19%		± 2%
Europe	1,464	14%		116,113	± 10,653	9%		± 1%
Asia and Pacific	1,740	16%		111,171	± 16,341	8%		± 2%
On Base	3,689	35%		518,967	± 41,719	40%		± 3%
Off Base	6,932	65%		790,926	± 40,838	60%		± 3%
<b>EDUCATION</b>								
No College	1,807	17%		300,126	± 33,548	23%		± 3%
Some College	5,081	48%		739,626	± 41,475	56%		± 3%
4-year Degree	1,961	18%		170,392	± 21,461	13%		± 2%
Grad/Prof Degree	1,771	17%		99,688	± 15,008	8%		± 2%
<b>RACE/ETHNICITY</b>								
Non-Hispanic White	4,971	47%		802,324	± 45,888	61%		± 2%
Total Minority	5,637	53%		505,851	± 26,212	39%		± 2%
Non-Hispanic Black	2,843	27%		231,737	± 17,632	18%		± 2%
Hispanic	1,678	16%		162,577	± 16,393	12%		± 2%



Table 1 (continued)

	Respondents			Estimated Population				
	Count	Percent		Totals		Percent		Max ME
<b>FAMILY STATUS</b>								
Single w/ Child(ren)	1,247	12%		77,936	± 13,018	6%		± 1%
Single w/o Child(ren)	2,624	25%		440,716	± 41,800	34%		± 3%
Married w/ Child(ren)	5,077	48%		558,474	± 30,602	43%		± 3%
Married w/o Child(ren)	1,673	16%		232,767	± 31,341	18%		± 3%
Working Spouse	4,199	40%		439,095	± 31,006	34%		± 3%
Dual Service Spouse	1,590	15%		115,916	± 12,556	9%		± 1%
<b>GENDER</b>								
Male	7,299	69%		1,105,819	± 48,497	84%		± 1%
Enlisted	4,811	45%		932,635	± 44,139	71%		± 2%
Officers	2,488	23%		173,184	± 20,275	13%		± 2%
Female	3,322	31%		204,074	± 11,855	16%		± 1%
Enlisted	2,325	22%		168,842	± 11,238	13%		± 1%
Officers	997	9%		35,232	± 3,911	3%		± 1%
<b>SERVICE BY PAYGRADE</b>								
Army Enlisted	2,334	22%		378,840	± 19,903	29%		± 2%
E1 – E4	1,062	10%		184,452	± 13,785	14%		± 2%
E5 – E9	1,272	12%		194,388	± 15,696	15%		± 2%
Army Officers	1,313	12%		75,439	± 12,507	6%		± 1%
O1 – O3	379	4%		33,721	± 10,080	3%		± 1%
O4 – O6	684	6%		28,089	± 7,824	2%		± 1%
Navy Enlisted	1,963	18%		300,585	± 29,649	23%		± 2%
E1 – E4	731	7%		129,128	± 29,183	10%		± 3%
E5 – E9	1,232	12%		171,458	± 9,045	13%		± 1%
Navy Officers	1,018	10%		42,415	± 3,638	3%		± 1%
O1 – O3	498	5%		20,479	± 4,698	2%		± 1%
O4 – O6	468	4%		18,944	± 3,529	1%		± 1%
Marine Corps Enlisted	1,466	14%		139,928	± 8,014	11%		± 1%
E1 – E4	602	6%		85,361	± 7,786	7%		± 1%
E5 – E9	864	8%		54,567	± 2,763	4%		± 1%
Marine Corps Officers	427	4%		16,974	± 1,201	1%		± 1%
O1 – O3	203	2%		9,117	± 1,408	1%		± 1%
O4 – O6	144	1%		5,941	± 583	0%		± 1%
Air Force Enlisted	1,373	13%		282,123	± 26,724	22%		± 2%
E1 – E4	524	5%		120,814	± 25,835	9%		± 2%
E5 – E9	849	8%		161,309	± 8,402	12%		± 1%
Air Force Officers	727	7%		73,588	± 15,969	6%		± 2%
O1 – O3	394	4%		42,672	± 13,069	3%		± 1%
O4 – O6	333	3%		30,916	± 9,441	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.<sup>8</sup> 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 Q50, members are asked about supervisor satisfaction. The composite measure includes survey items on members' agreement that their supervisor can be trusted, treats all assigned people fairly, has conflict with people who report to him/her, gives satisfactory direction, evaluates performance fairly, and makes work assignments fairly. Higher scores indicate members more strongly agreed with positive statements about their supervisor (i.e., were more satisfied).
- In Q55, members are asked about careerism. The composite measure includes items on members' agreement that their leaders put personal interests above the organization's interests to further their careers. High scores indicate members strongly agreed with negative statements about careerism in the military.
- In Q68, members are asked about coworker satisfaction. The composite measure includes survey items on satisfaction with coworker conflicts, satisfaction with coworker relationships, coworker work efforts, work group compatibility, and helpfulness of coworkers. Higher scores indicate members more strongly agreed with positive statements about their coworkers (i.e., were more satisfied).
- In Q69, members are asked about work satisfaction. The composite measure includes survey items on sense of pride, use of skills, career suitability, work enjoyment, valuable skills, and overall job satisfaction.

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<sup>8</sup> 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.

Higher scores indicate members more strongly agreed with positive statements about their work (i.e., were more satisfied).

- In Q70, members are asked about workgroup effectiveness. The composite measure includes survey items on amount and quality of workgroup output, workgroup's ability to handle high priority work, workgroup's ability to get maximum output from available resources, and a general rating of workgroup's performance. Higher scores indicate members more strongly agreed with positive statements about their workgroup.
- In Q71, members are asked about their organizational commitment. Three measures of organizational commitment (Q71) are presented. Affective commitment includes items on emotional attachment to, an identification with, and an involvement in an organization (Q71a, b, e, h, j, and m). Continuance commitment includes items on attachment based on the perceived costs associated with leaving an organization (Q71c, f, i, l, and n). Lastly, normative commitment includes items on sense of obligation to remain in an organization (Q71d, g, and k). Lower scores on these measures indicate less organizational commitment, while higher scores represent more organizational commitment.

### ***Margins of Error***

The complex sample design required weighting to produce population estimates, such as percentages.<sup>9</sup> 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<sup>®</sup> 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.

Normally, DMDC uses optimized samples to minimize the margin of error; however, due to undetected problems<sup>10</sup> in the sample design process, the sample for

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

<sup>10</sup> While the margins of error are larger than normal, the weighted estimates are still representative of the population.

December 2004 was not optimized and the resulting margins of error are substantially larger than usual. Because of the larger margins of error, there is a larger than usual chance that true population differences will not be detected in the results of the December 2004 survey.

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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