USE OF DEMOGRAPHICS TO PREDICT HIGH RISK INDIVIDUALS FOR SUICIDE

GRADUATE RESEARCH PROJECT

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Approved:

Dr. Sharon G. Heilmann, Lt Col, USAF (Advisor)
Abstract

The Department of Defense is committed to the reduction in suicide events, which erodes good order and discipline, through the implementation of suicide prevention programs. This study examines the efforts in the military and civilian population to decrease the suicide rate and to determine what tools a commander can use based on the best evidence available.

The research uses data from the Center for Disease Control, the Department of Defense Suicide Event Reports, and the Defense Manpower Data Center to identify individuals who are at a higher risk for suicide. The study compares separate demographic groups based on perceived stress, an identified risk factor for suicide.

The research specifically targets the perceived stress levels between the ranks of military members as well as the perceived stress levels between the four branches of the U.S. Armed Forces. Results suggest mean stress levels differed by rank and service, indicating the benefits of screening for higher risk individuals. Of note is the difference between the increases in perceived mean stress level between each branch of service. Given the differences, the Department of Defense can benefit from further research evaluating the effectiveness of suicide prevention programs available from civilian and military sectors.
For my lovely wife and children
Acknowledgements

I would like to express my sincere appreciation and many thanks to my faculty advisor Lt Col Sharon Heilmann for her guidance and expertise throughout the course of this research project. I would also like to thank my wife and children for their patience, love, and support which are the cornerstones of my success.
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I. Introduction

Background and Motivation

In 2012, 349 service members committed suicide which is an increase of 16% over 2011. This includes 182 in the US Army, 48 in the US Marine Corps, 60 in the US Navy, and 59 in the US Air Force (Briggs, 2013). More service members committed suicide in 2012 than were killed in Afghanistan, 295 (Burns, 2013). This is the highest number of suicides recorded in the past 10 years after reaching a peak of 309 in 2009 (Luxton, 2011).

The rate of suicide in the Department of Defense (DoD) is alarming and continues to rise. Suicide is considered a preventable death that drains valuable resources. An increased ability to predict or identify those at greater risk for committing suicide can lead to early intervention and prevent this tragedy from happening. It is the commander’s responsibility with the help of frontline supervisors for assessing the need for early intervention. The commander’s ability to assess individuals is only as good as the tools he is given to combat this problem.

Suicide prevention is a significant challenge according to Martin Dempsey, the Chairman of the Joint Chiefs of Staff, as he indicates solving the challenge requires the
commitment and focus of leaders at every level (Roulo, 2012). He views the loss of life of each service member caused through suicide as one loss too many, so the DoD is trying to find proven suicide prevention strategies that will save more lives (Lyle, 2013). DoD spokeswoman, Cynthia O. Smith, said “We are deeply concerned about suicide in the military, which is one of the most urgent problems facing the department. Our most valuable resource within the department is our people. We are committed to taking care of our people, and that includes doing everything possible to prevent suicides in the military” (Londoño, 2013).

The DoD Task Force on the Prevention of Suicide released its August 2010 report with 76 recommendations to reduce the suicide rate within the DoD (Berman, 2010). The first recommendation was to establish the creation of a DoD Suicide Prevention Policy Office. In response to this recommendation, the DoD created the Defense Suicide Prevention Office (DSPO) in November 2011 to “standardize policies and procedures with respect to resiliency, mental fitness, life skills, and suicide prevention” (Berman, 2010). The report also concluded that commanders need better tools to assess risk (Berman, 2010). The key to providing commanders with better tools is the ability to identify those at risk. The purpose of this study was to provide some insight into the makeup of an organization and to better equip the commander to seek help for those individuals deemed at higher risk.

**Problem Statement**

Based on available demographic and survey data, can tools be made available to commanders so they can assess a service member’s potential risk for committing suicide?
Research Questions

This paper focuses on the following research questions.

1. Is there a difference between the rate of suicide in the military population versus the civilian population?

2. Is there a difference between the rate of suicide in each Service Branch within the DoD?

3. Is there a difference between the rate of suicide in different ranks of DoD members?
II. Literature Review

Introduction

This chapter begins by examining the terminology used in the epidemiological study of suicide and suicide prevention. This follows with a discussion of the risk factors associated with suicide. Next the possible links between suicide and stress are investigated followed by an exploratory focus of the current suicide prevention programs used throughout each service. Finally, a discussion on how demographics play a role in the rates of suicide in the military is presented.

What is suicide?

Suicide is a complex human behavior that has crossed gender, race, and religious boundaries over the course of human history (Berman, 2010). When discussing the issue of suicide, the clear definition of terms is valuable to standardize them across reporting agencies and in the analysis of suicide (Ramchand, 2011). The variability in the definition of terminology limits the ability to compare epidemiological prevalence rates (Posner, 2007).

The reason that definitions are important is the ability to classify events. Misclassification of an event can lead to a bias toward the null. This bias however does not guarantee that the observed estimate will be an underestimate. Non-differential misclassification can provide an overestimation of the observed relative risk (Jurek, 2005).

There are many definitions of suicide and suicide attempt used by different organizations, Naval Administrative (NAVADMIN) 122/09 defines a suicide as a self-inflicted death with evidence, either implicit or explicit, of the intent to die. It further
defines a suicide attempt as a self-inflicted, potentially injurious behavior with a nonfatal outcome for which there is evidence of intent to die. Finally it delineates other suicidal behaviors such as communications or exhibited behavior without the intent to die (NAVADMIN 122/09). Another definition of a suicide is a suicide attempt that results in a fatal injury for the individual (Ramchand, 2011).

The Center for Disease Control (CDC) proposed to standardize the definitions for self-directed violence to enhance the analysis of the data in February 2011 (Crosby, 2011). DoD, Veterans Affairs, CDC, and Substance Abuse and Mental Health Services Administration (SAMHSA) all agreed to adopt the same nomenclature for suicide-related behaviors after the February 2011 release (Berman, 2010). The following definitions were proposed to delineate terminology (Crosby, 2011).

Self-Directed Violence: Behavior that is self-directed and deliberately results in injury or the potential for injury to oneself. There are two types of self-directed violence, non-suicidal and suicidal.

Non-suicidal self-directed violence: Behavior that is self-directed and deliberately results in injury or the potential for injury to oneself. There is no evidence, whether implicit or explicit, of suicidal intent.

Suicidal self-directed violence: Behavior that is self-directed and deliberately results in injury or the potential for injury to oneself. There is evidence, whether implicit or explicit, of suicidal intent.

Undetermined self-directed violence: Behavior that is self-directed and deliberately results in injury or the potential for injury to oneself. Suicidal intent is unclear based on the available evidence.
Suicide attempt: A non-fatal self-directed potentially injurious behavior with any intent to die as a result of the behavior. A suicide attempt may or may not result in injury.

Interrupted self-directed violence-by self or by other:

By other: A person takes steps to injure self but is stopped by another person prior to fatal injury. The interruption can occur at any point during the act such as after the initial thought or after onset of behavior.

By self: A person takes steps to injure self but is stopped by self prior to fatal injury.

Figure 1 shows the flowchart of how medical personnel classify a suicide event. Starting at the top of the chart, a determination is made as to whether there was self-directed violence which can then lead to three outcomes; self-directed violence, undetermined self-directed violence, or non-suicidal self-directed violence. Once it is determined that it was suicidal self-directed violence, it is classified as fatal or non-fatal. If the self-directed violence is fatal, it is classified as a suicide; otherwise, the self-directed violence is a suicide attempt or other suicidal behavior.
The DoD has a central clearing house for the determination of a suicide event. The Armed Forces Medical Examiner System (AFMES) performs medical-legal examinations on service members and American citizens who die in a combat zone and certain individuals who are killed or die within the United States or abroad. The AFMES positively identifies individuals and issues death certificates that state the cause and manner of death (Luxton, 2008). This central agency ensures a consistent classification of suicide events is made throughout the DoD for research and prevention efforts. Since up to 90% of suicides are confirmed by the AFMES prior to the April deadline for the preceding year’s numbers, the risk of overestimation is low and the change between the final numbers and suspected numbers is 1-2 cases per year (Reger, 2008).
Risk Factors

Operation Iraqi Freedom and Operation Enduring Freedom placed unprecedented demands on the Armed Forces over since 2001. The operational requirements for each service continue to rise with a constant personnel level (Berman, 2010). The DoD Task Force on the Prevention of Suicide sees the cumulative effects of these factors as a reason for the increasing rate of suicide in the Armed Forces (Berman, 2010). The emphasis placed on suicide prevention within the DoD has led to the development of numerous initiatives to reduce the risk of suicide throughout the services (Berman, 2010).

The Air Force had 273 active duty suicides between 2003 and 2009. The Air Force concluded based on these 273 events, the top three risk factors were relationship problems (67%), legal problems (39%), and financial problems (25%) (Berman, 2010).

Table 1: Air Force Top Risk Factors

<table>
<thead>
<tr>
<th>Top Risk Factors</th>
<th>Identified in ADAF CY03-CY09 suicides</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relationship Problems</td>
<td>67%</td>
</tr>
<tr>
<td>2. Legal Problems</td>
<td>39%</td>
</tr>
<tr>
<td>2. Financial Problems</td>
<td>25%</td>
</tr>
</tbody>
</table>

The United States Marine Corps (USMC) identified the top 4 risk factors and top five risk stressors from 1999 through 2007 suicides. The top four risk factors and associated percent of occurrence in suicide events in the USMC are negative emotional state (51%), mental health history (40%), changes in mood or behavior (34%), and self-destructive or aggressive behavior (28%). The top five associated stressors are relationship problems (53%), work related problems (50%), pending disciplinary action (43%), physical illness (33%), and financial problems (13%) (Berman, 2010). The United States Army (USA) used demographic data targeting suicide prevention programs
toward junior enlisted members because this population was thought most at risk (Berman, Aug 2010). The Army and Navy did not identify top risk factors or associated stressors in their suicide data.

Table 2: Marine Corps Top Risk Factors and Associated Stressors

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Emotional State</td>
<td>51%</td>
<td>1. Relationship Problems/Loss</td>
<td>53%</td>
</tr>
<tr>
<td>2. Mental Health History</td>
<td>40%</td>
<td>2. Work Related Problems</td>
<td>50%</td>
</tr>
<tr>
<td>3. Changes in Mood or Behavior</td>
<td>34%</td>
<td>3. Pending Disciplinary Action</td>
<td>43%</td>
</tr>
<tr>
<td>4. Self Destructive/Aggressive Behavior</td>
<td>28%</td>
<td>4. Physical Illness</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Financial Problems</td>
<td>13%</td>
</tr>
</tbody>
</table>

Strong evidence exists for the top three risk factors for suicide: a previous suicide attempt, substance abuse issues, and mental health issue (Acosta, 2012). The following is a discussion of the literature surrounding each of these factors.

**Previous Suicide Attempt**

A large proportion of male and a substantial proportion of female suicide deaths occur on their first suicide attempt. Early recognition of the suicide risks in these individuals is paramount in reducing these cases. Recognition of periods of high suicide risk on the grounds of recent non-fatal suicide attempts is likely to be important for suicide prevention among females. Individuals completing suicide commonly switch from one suicide method to another making a previous attempted suicide a strong predictor in subsequent suicide (Isometsä, 1998). The individuals that attempt suicide should be considered a higher risk for a future suicide attempt (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). Studies
demonstrated that individuals who attempted a suicide in the past have a 5 to 15% greater chance of dying by suicide. This is a 40- to 50-fold increase in the risk of dying by suicide (Acosta, 2012).

**Substance Abuse**

Substance abuse is another factor that increases an individual’s risk for suicide attempt (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). Approximately 8.8% of all drug-related emergency room visits involved suicide attempts by adolescents from 12 to 17 years old (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). Screening for substance abuse problems can lead to the identification of individuals that are at a higher risk for mental health issues (Bray, 2011). Between 20 and 30% of those individuals that die by suicide are legally intoxicated at the time of death (Goldsmith, 2002). A number of studies discovered a strong correlation between substance abuse and suicide or suicidal ideations. Factors associated with an increased likelihood for substance abuse are the same factors that are associated with an increased likelihood for suicide (Forman, 1998).

**Mental Health**

A history of mental health issues is the third risk factor for which there is strong evidence of suicide associated. Over 90% of individuals who committed suicide had a history of mental illness and/or some type of substance abuse issue (Goldsmith, 2002). The risk factor that had the strongest link with suicide in a review of 154 different studies was a mental health disorder (Cavanagh, 2003). There is some concern that U.S. military service members are exposed to certain mental health disorders due to the prolonged and continuing deployments in support of Operation Iraqi Freedom and Operation Enduring Freedom. The military population is at an increased risk for depression and anxiety
disorders which include post traumatic stress disorder (PTSD) (Ramchand, 2011). Individuals who report symptoms of depression will die by suicide 4% of the time.

**Access to Firearms**

The availability of firearms in the home leads to an increase in risk of suicide. This increase was even more pronounced in homes where the firearm was not locked up or was already loaded versus homes that kept firearms locked up (Kellermann, 1992). A large proportion of these cases had the firearm in the home for an extended period of time and did not purchase the firearm within days of the suicide event (Kellermann, 1992). In 1998, firearms accounted for 57% of the total suicides (Goldsmith, 2002). Limiting the access to firearms did not see an increase in these individuals use of a different method for suicide (Goldsmith, 2002).

**Triggering Events**

A triggering event is some specific life event such as the events the Air Force listed as top risk factors of relationship problems, legal problems, and financial problems (Berman, 2010). These life events may increase an individuals suspectability to suicide. The trigger events may combine with the fundamental vulnerabilities of behavioral health to suicide that causes the increased suspectability from these somewhat common events (Acosta, 2012).

The “TIP” of the iceberg or the area above the surface represents the suicide-related behaviors and the act of suicide (see Figure 2). The larger area below the surface represents the much larger set of underlying psychological, physical, spiritual, emotional, relationship, environmental, occupational and social stressors. The effects of the stressors are influenced by an individual’s resiliency in a certain set of conditions (Berman, 2010).
In order to prevent suicide and sustain suicide prevention efforts, any comprehensive suicide prevention program must address the stressors that are hidden beneath the surface and build an individual’s resiliency while decreasing the stigma of seeking help (Berman, 2010).

![Image: Suicide and Suicide Related Behaviors]

**Figure 2: Suicide and Suicide Related Behaviors (Berman, 2010)**

**Stress**

The definition of stress focuses on two main parts. The first is the “cause” of stress or the environmental stressors that a person feels (Kopp, 2010). These environmental stressors or stimuli include major events such as deployments or minor events such as daily tasks. The second part of stress is the “effect” which is the person’s reaction to the stress (Kopp, 2010). The reaction to stress has two parts which are the
stress appraisal and the emotional response to the event in question (Kopp, 2010). There are three main foundational ways to measure an individual’s stress. The environmental approach focuses on the causes of the stress and the impact of those stressors on the individual (Kopp, 2010). The psychological approach assesses a person’s own abilities to handle the demands of individual events (Kopp, 2010). The biological approach focuses on the measurement of the physiological systems that are activated in response to stress (Kopp, 2010).

One tool using the psychological approach assessment of stress is the Perceived Stress Scale (PSS). This is an instrument that assesses an individual’s perceived stress and was designed to measure “the degree to which individuals appraise situations in their lives as stressful” (Cohen, 1983; Kopp, 2010). Higher scores on the PSS indicate higher levels of perceived stress. The PSS “can be used as an outcome measure in stress reduction interventions” (Kopp, 2010).

Higher percentages of military personnel rated their jobs (32.5%) as more stressful than their personal lives (18.9%). The most frequently indicated stressors for both men and women were being away from family (16.6%), deployment (13.4%), and increases in work load (12.9%). Overall work and family stress levels have not changed significantly since 2002 (Bray, 2005). Defense Manpower Data Center (DMDC) data show that E1-E4 have higher perceived stress levels than other paygrades. This data also shows that perceived stress levels across each branch of service remain relatively constant each year.
Suicide Prevention Programs

The Task Force on the Prevention of Suicide by Members of the Armed Forces identified four main areas for a successful suicide prevention program. The four focus areas are (1) Organization and Leadership; (2) Wellness, Enhancement, and Training; (3) Access to, and Delivery of, Quality Care; and (4) Surveillance, Investigations and Research (Berman, 2010). When developing a strategy to deal with suicide prevention, these areas should be integrated to develop a sound program that reduces suicide risk (Berman, 2010). A depiction of how the four focus areas fit together to form a comprehensive strategy is presented in Figure 3.

![developing_comprehensive_suicide_prevention_strategy](image)

Figure 3: Developing Comprehensive Suicide Prevention Strategy (Berman, 2010)

These four focus areas show where suicide prevention programs should prioritize their resources. Each service has developed an individual suicide prevention campaign
that has evolved over time. The following will show some of the suicide prevention efforts of each service and how they fit into the four focus areas.

The Army first developed its suicide prevention program in 1984. In 2008, the Army adopted the Comprehensive Soldier Fitness approach which is a program designed to strengthen individual soldier’s resilience in the areas of emotional, social, spiritual, family, and physical which encompasses the total fitness of a soldier (Berman, 2010). This program is incorporated into basic training and is revisited at intervals throughout a soldier’s career (Berman, 2010). The Army also collaborated on a suicide prevention video titled “Beyond the Front” (Berman, 2010).

The Navy formally established a suicide prevention program in 1996. In 2009 the Navy established the Navy Operational Stress Control which promoted building resilience, problem solving, and creating a healthy environment (Berman, 2010). Suicide prevention information is disseminated through the annual training requirements for all sailors dealing with warning signs, risk factors, and protective factors of suicide. The training is distributed through multiple mediums including live, video, and computer based training (Berman, 2010).

The Air Force created the integrated product team in 1996 to address the problem of increasing suicide rates. The Air Force developed 11 key elements to its suicide prevention program in AFPAM 44-160 (Berman, 2010). These 11 key elements were continually enhanced over the years to include the development of Frontline Supervisor Training to career fields indentified as higher risk. The Air Force also created a training program to ensure the latest evidenced based treatment options were disseminated to medical providers (Berman, 2010). The suicide rate in the Air Force experienced a 33%
reduction after the implementation of the program and was used as a model for other programs (Berman, 2010, Knox, 2003).

The Marine Corps established their suicide prevention policy in 1992 with requirements for small unit suicide prevention and awareness training (Berman, 2010). The current policy involves multiple elements that include health promotion and life skills training. The Suicide Prevention Program is refined continually with new guidance on the latest initiatives to reduce suicide (Berman, 2010).

The Signs of Symptoms (SOS) suicide prevention program demonstrated significantly lower rates of suicide attempts than from the control group. Participating in the SOS program increased students’ knowledge of depression and suicide and fostered more adaptive attitudes toward these problems (Aseltine, 2007). The SOS program encourages individuals to “ACT” (Ask, Care, Treatment) when they see the signs of suicides in others which may further reduce the risk of suicide in others (Aseltine, 2007).

Government agencies at all levels, schools, not-for-profit organizations, and others have initiated programs and campaigns to address suicide risks. Every state now has coordinated suicide prevention plans and initiatives that are implemented at the state level (Berman, 2010). Using the Task Force on Suicide Prevention’s four main focus construct, there are six critical emphasis areas for an effective prevention program (Ramchand, 2011), to include:

1. Raising awareness and promoting self-care.
2. Identifying those at high risk of suicide.
3. Facilitating access to quality care.
4. Providing quality care.
5. Restricting access to lethal means.

6. Responding appropriately to suicides and suicide attempts.

Table 3 identifies how well each service’s suicide prevention programs meet the six critical emphasis areas.

Table 3: Service Suicide Prevention Program Goals (Ramchand, 2011)

<table>
<thead>
<tr>
<th>Goal</th>
<th>Army</th>
<th>Navy</th>
<th>Air Force</th>
<th>Marine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Raise Awareness and Promote Self Care</td>
<td>Primarily awareness campaigns, with fewer initiatives aimed at promoting self-care</td>
<td>Expansive but rely mostly on gatekeepers</td>
<td>Mostly rely on gatekeepers</td>
<td>Mostly rely on gatekeepers</td>
</tr>
<tr>
<td>2. Identify those at Risk</td>
<td>Stigma addressed primarily by locating behavioral health care in nontraditional settings</td>
<td>Expansive but rely mostly on gatekeepers</td>
<td>Investigation policy</td>
<td>Mostly rely on gatekeepers</td>
</tr>
<tr>
<td>3. Facilitate access to quality care</td>
<td>No policy to assuage privacy or professional concerns</td>
<td>Limited Privilege</td>
<td>LimitedPrivilege</td>
<td>No policy</td>
</tr>
<tr>
<td>4. Deliver Quality Care</td>
<td>No policy</td>
<td>Limited Privilege</td>
<td>Past efforts exist with a sustainment plan</td>
<td>Past efforts exist but not sustainment</td>
</tr>
<tr>
<td>5. Restrict access to lethal means</td>
<td>No current policies</td>
<td>Limited guidance</td>
<td>Limited guidance</td>
<td>No policy</td>
</tr>
<tr>
<td>6. Respond appropriately</td>
<td>Personnel/teams available, but limited guidance</td>
<td>Limited guidance</td>
<td>Limited guidance</td>
<td>No policy</td>
</tr>
</tbody>
</table>

Suicide prevention programs are divided into two separate categories. The first category is universal or primary prevention programs. Primary prevention programs target whole populations and are generally comprised of skill building and suicide awareness training (Ramchand, 2011). Screening also falls into this category since entire populations are usually screened. The second category is selective or secondary prevention programs (Ramchand, 2011). These programs target a specific group of individuals based on some known risk factor. Each branch of service uses both types of
prevention programs. In the Air Force, the primary prevention program is comprised of the annual Advanced Distributed Learning System (ADLS) suicide prevention training. Each member is required to complete annual training on an annual basis. This training targets the entire Air Force population. A secondary prevention program that the Army uses is the Military Family Life Consultant program which targets specific individuals based on risk factors for special counseling. This program helps individuals who are having trouble coping with concerns and issues of daily life (Military Family Life Consultants, 2012).

The most promising programs which include skill building and awareness are the ones which build coping strategies and focus on behavioral changes (Ramchand, 2011). Awareness programs alone do not seem to influence a reduction in suicide. The combination of resiliency and coping skills reduce the risk of suicide. Research suggests that coping skills can be taught (Goldsmith, 2002).

One program that aims to teach resilience skills is the Master Resilience Trainer (MRT) course which is based on the Penn Resilience Program and adopted by the U.S. Army. This program strengthens the evidence based protective factors including optimism, problem solving, self-efficacy, self-regulation, emotional awareness, and strong relationships (Reivich, 2011). The course is comprised of five separate modules. Module 1 is resilience, focusing on self-awareness and self-regulation skills (Reivich, 2011). Module 2 is building mental toughness which teaches multiple skills that increase the resilience competencies learned in Module 1 (Reivich, 2011). Module 3 is Identifying Character Strengths where individuals identify strengths in themselves and also in others (Reivich, 2011). Module 4 is Strengthening Relationships which teaches positive
communication styles and provides tools for healthy relationships (Reivich, 2011).

Module 5 is the sustainment component which enables individuals to take the skills they learn and apply them in the military context (Reivich, 2011).

**Barriers to Mental Health Care**

At multiple levels interventions attempt to address risk factors and to enhance protective factors. Programs that integrate prevention at multiple levels are likely to be the most effective. The Air Force’s prevention program is an example of a comprehensive program that has effectively reduced suicide rates in the population. This program achieved successes in removing barriers to treatment; increasing knowledge, attitudes, and competencies within the studied population. It also increased access to help and support which showed a decrease in suicide rates (Goldsmith, 2002). Any universal prevention program that might inadvertently increase the stigma for those experiencing suicidal states was thought by experts to be potentially detrimental, since it could actually lead to more barriers to care for those in need (Ramchand, 2011).

An integrated suicide prevention program allows members the ability to access quality mental health care. This entails removing the obstacles members face in seeking mental health care when they need it. One of the issues service members face when accessing mental health care is a perception of negative career implications (Ramchand, 2012). Another issue that creates a negative perception is the denial of a security clearance or the breach in confidentiality between the patient and medical provider after a member has accessed the mental health care system. The negative perceptions in policies that both of these issues create is called a “mental health stigma” by some members (Ramchand, 2012). This may be labeled discrimination over those who access the mental
health system and any suicide prevention program should address these concerns (Ramchand, 2012).

U.S. military members experience unique barriers to behavioral healthcare that jeopardize opportunities for intervention. In an evaluation of service members deployed to Iraq or Afghanistan, results indicated that only half of those in need of behavioral healthcare received treatment (Cox, 2011). Table 4 shows some of the most common barriers to mental health in the military population (Ramchand, 2011).

Table 4: Barriers to Mental Health

<table>
<thead>
<tr>
<th>Barriers to Mental Health in General Population and Formerly Deployed Military Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In General Population</strong></td>
</tr>
<tr>
<td>-Lack of Perceived Need</td>
</tr>
<tr>
<td>-Unsure about where to go for help</td>
</tr>
<tr>
<td>-Cost(too expensive)</td>
</tr>
<tr>
<td>-Perceived lack of effectiveness</td>
</tr>
<tr>
<td>-Reliance on self (desire to solve problem on own or thoughts the problem will get better)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

These barriers to the mental health system preclude at risk individuals from seeking help on their own. If individuals are not willing to seek help because of these barriers, screening tools can help providers identify those individuals with elevated risks.

**Screening Tools**

A screening tool is most effective if the condition being screened for can be effectively treated and the prevalence rate is not too low. A screening tool is effective if it is easy to administer to individuals and be able to detect the condition for which the screen is intended to detect without registering false positives (Horowitz, 2009). In order to detect suicide risk, it is imperative to identify a larger number of individuals to ensure
the at-risk population is captured (Horowitz, 2009). A false negative will lead individuals to not get the proper care they need while a false positive will drain valuable resources (Horowitz, 2009). The Columbia Suicide Screen was able to improve the identification of at-risk individuals for suicide than were previously identified by school professionals alone (Scott, 2009). Screening also had a lower false positive rate than school professionals in determining the population of at-risk individuals (Scott, 2009).

**Age and Gender Adjustments**

The rates of all causes of death vary by age. The technique of age adjustment removes the effects of age from the crude rates which allows for meaningful comparisons across populations with different underlying age structures (Klein, 2001). The Center for Disease Control publishes age-adjusted rates for causes of disease, injury, and death (Klein, 2001). The National Center for Health Statistics achieved an agreement by Federal and State agencies to age adjust mortality data using 2000 projected U.S. population data (Klein, 2001). The military population and the U.S. population have different age structures, creating a problem of age confounding which makes it appropriate to adjust for these differences (Klein, 2001). To eliminate age confounding, the process of rate adjustment changes, the amount each age group contributes to the overall rate and ensures consistency throughout the data (Klein, 2001). The process of calculating the age adjustment rate begins by the identification of the age groups used for the adjustment. Then the age specific rates are multiplied by the age specific weights to determine the Age adjusted Rate. An example of the calculation is presented in Table 5 (Klein, 2001).
Table 5: Age Adjustment

<table>
<thead>
<tr>
<th>Age Group</th>
<th># of Suicides (a)</th>
<th>Population (b)</th>
<th>Rate per 100,000 c = (a/b) x 100,000</th>
<th>Weight d = b/Total Pop</th>
<th>Age Adjusted Rate e = c x d</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-21</td>
<td>20</td>
<td>118,000</td>
<td>16.95</td>
<td>0.22</td>
<td>3.68</td>
</tr>
<tr>
<td>22-25</td>
<td>26</td>
<td>235,000</td>
<td>11.06</td>
<td>0.43</td>
<td>4.79</td>
</tr>
<tr>
<td>26-29</td>
<td>18</td>
<td>190,000</td>
<td>9.47</td>
<td>0.35</td>
<td>3.31</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>543,000</td>
<td>11.79</td>
<td>1</td>
<td>11.79</td>
</tr>
</tbody>
</table>

The military is approximately 86% male and 14% female while the U.S. population is roughly split 50% male and 50% female (Ramchand, 2011). The process to adjust the rates for gender is similar to the age adjustment process. The adjustment process enables a comparison of similar data sets across different populations. This is a critical step when comparing the rates between different age groups and gender vary widely as they do in suicide rates (Klein, 2001).

**Hypotheses**

In accordance with the research objectives of the problem statement the following hypotheses will be tested.

1. **H1**: The rate of suicide is higher in the military population than the civilian population

2. **H2**: The Army has a higher suicide rate than other service branches

3. **H3**: The Army has higher stress levels than other service branches

4. **H4**: E1-E4 have higher stress levels than other enlisted and officer ranks
Summary

This chapter covered the background information on what suicide is and some of the risk factors for suicide. Next was a discussion of previous and current efforts in various suicide prevention programs and characteristics of a successful suicide prevention program. The suicide prevention programs in the DoD mainly focus on awareness training and prevention through the use of gatekeepers. In the Air Force, the wingman concept is used in the gatekeeper role. The most promising programs are the ones that take a comprehensive approach to suicide prevention by not only advocating suicide awareness but facilitating access to mental health treatment. This followed with an examination of some of the barriers to mental health care. The chapter concluded with the method of demographic adjustment for age and gender.
III. Methodology

Introduction

The data for this project came from three main sources. The civilian data is collected from the Center for Disease Control and Prevention, National Center for Injury Prevention, and Control Web-based Injury Statistics Query and Reporting System (WISQARS). The data source for WISQARS Fatal Injury Data is the National Vital Statistics System which is operated by the National Center for Health Statistics. The military data is collected from the DOD Suicide Event Reports (DODSER) from the National Center for Telehealth and Technology. The information on stress levels was collected from the DMDC Status of Forces Survey (SOFs) of Active Duty Members from 2008-2009. The DMDC survey is comprised of approximately 175 questions, depending on the month and year. The data in all three of these systems had demographic information on age and gender which make it useful when comparing populations.

Survey Methodology

The December 2009 Status of Forces Survey of Active Duty Members responses were collected from November 13, 2009, to January 25, 2010. The target population for the survey consisted of active duty members of the Army, Navy, Marine Corps, and Air Force who had at least six months of service at the time the questionnaire was first administered and below flag rank. The Web survey process began with notification letters sent to sample members. Additional e-mail reminders were sent to encourage survey participation. A completed survey was defined as 50% or more of the survey questions asked of all participants are answered. Table 6 shows the participation rate and response number for the survey data used in this research.
Table 6: Number of Completed Surveys by Year and Category

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>Aug-08</th>
<th>Nov-08</th>
<th>Apr-09</th>
<th>Aug-09</th>
<th>Dec-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample Size</td>
<td>53,534</td>
<td>37,494</td>
<td>37,292</td>
<td>34,719</td>
<td>38,604</td>
</tr>
<tr>
<td>Complete Surveys</td>
<td>17,673</td>
<td>10,435</td>
<td>11,028</td>
<td>9,538</td>
<td>10,797</td>
</tr>
<tr>
<td>Response Rate</td>
<td>33.0%</td>
<td>27.8%</td>
<td>29.6%</td>
<td>27.5%</td>
<td>28.0%</td>
</tr>
</tbody>
</table>

Service

<table>
<thead>
<tr>
<th>Service</th>
<th>Army</th>
<th>Navy</th>
<th>Marine Corps</th>
<th>Air Force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5,904</td>
<td>2,501</td>
<td>1,842</td>
<td>7,426</td>
</tr>
<tr>
<td></td>
<td>3,780</td>
<td>2,316</td>
<td>1,792</td>
<td>2,547</td>
</tr>
<tr>
<td></td>
<td>3,704</td>
<td>2,520</td>
<td>1,911</td>
<td>2,893</td>
</tr>
<tr>
<td></td>
<td>3,125</td>
<td>2,187</td>
<td>1,809</td>
<td>2,417</td>
</tr>
<tr>
<td></td>
<td>3,675</td>
<td>2,530</td>
<td>1,794</td>
<td>2,798</td>
</tr>
</tbody>
</table>

Paygrade

<table>
<thead>
<tr>
<th>Paygrade</th>
<th>E1-E4</th>
<th>E5-E9</th>
<th>O1-O3</th>
<th>O4-O6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,523</td>
<td>5,595</td>
<td>6,524</td>
<td>2,421</td>
</tr>
<tr>
<td></td>
<td>2,102</td>
<td>4,172</td>
<td>1,704</td>
<td>1,795</td>
</tr>
<tr>
<td></td>
<td>2,461</td>
<td>4,601</td>
<td>1,566</td>
<td>1,804</td>
</tr>
<tr>
<td></td>
<td>1,827</td>
<td>3,746</td>
<td>1,602</td>
<td>1,841</td>
</tr>
<tr>
<td></td>
<td>2,274</td>
<td>4,217</td>
<td>1,837</td>
<td>1,872</td>
</tr>
</tbody>
</table>

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14,321</td>
<td>3,352</td>
</tr>
<tr>
<td></td>
<td>8,732</td>
<td>1,703</td>
</tr>
<tr>
<td></td>
<td>8,802</td>
<td>2,226</td>
</tr>
<tr>
<td></td>
<td>7,936</td>
<td>1,602</td>
</tr>
<tr>
<td></td>
<td>9,068</td>
<td>1,729</td>
</tr>
</tbody>
</table>

Measures of Stress

On all active duty SOFS, there are a series of core items that include background information, overall satisfaction, retention intention, tempo, perceived readiness, and stress. This research focused on the measure of stress over time. The applicable background information categories are branch of service and paygrade. Stress was measured with three items of personal stress, work stress, and stress over the last month.

The first two questions (Appendix D, questions 40 and 41) were asked on a five-point scale with responses of much less than usual, less than usual, about the same as usual, more than usual, and much more than usual. Overall, how would you rate the
current level of stress in your work life? Overall, how would you measure the current level of stress in your personal life? The third question on stress (Appendix D, question 42) is a six part question that asks in the past month how often have you…

a) felt nervous and stressed?

b) felt that you were unable to control the important things in your life?

c) been upset because of something that happened unexpectedly?

d) been angered because of things that were outside of your control?

e) felt difficulties were piling up so high that you could not overcome them?

f) found that you could not cope with all of the things you had to do?

The available responses to these questions were never, almost never, sometimes, fairly often, and very often.

Responses from these eight questions were averaged to calculate a total stress measure. Table 6 summarizes the Cronbach’s Alpha, mean, and standard deviation for each of the surveys used from 2008 to 2009.

Table 7: Cronbach's Alpha for Stress

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>Aug-08</th>
<th>Nov-08</th>
<th>Apr-09</th>
<th>Aug-09</th>
<th>Dec-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>0.89</td>
<td>0.89</td>
<td>0.87</td>
<td>0.90</td>
<td>0.89</td>
</tr>
<tr>
<td>n</td>
<td>17,873</td>
<td>10,409</td>
<td>10,637</td>
<td>9,586</td>
<td>10,499</td>
</tr>
<tr>
<td>Mean</td>
<td>2.72</td>
<td>2.77</td>
<td>2.79</td>
<td>2.73</td>
<td>2.71</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.79</td>
<td>0.81</td>
<td>0.72</td>
<td>0.81</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Demographic Data Collection

The demographic data of interest in the research was branch of service and paygrade. Question 1 was “In what Service were you on active duty on December 7,
2009?” The choices are Army, Navy, Marine Corps, Air Force, and None, I have separated or retired. Question 2 was “What is your current paygrade?” Respondents could choose a single paygrade from E1 through O-6. This data was then used to create four paygrade groups E1-E4, E5-E9, O1-O3, and O4-O6. These groups were the basis for analyzing the different levels of stress in each group and comparing them.

Summary

This chapter explained the different sources of data used in the research. It also showed what types of data were collected and identified the survey participants and response rates to the individual surveys. Next the procedure used to compute a mean value of stress for different demographic groups was explained and the corresponding Cronbach’s Alpha for the reliability of the measure were presented.
IV. Results and Analysis

Introduction

This section provides the analysis of the proposed research questions and hypothesis. Research question one compares the military and civilian population using the data collected and adjusting population for demographic differences. Hypothesis one is used to answer this research question through the analysis of a chi-squared test. Research question two uses hypothesis two with a Chi-square test and hypothesis three with an analysis of variance and an independent samples t-test to answer. Research question uses hypothesis four with an analysis of variance and an independent samples t-test to answer.

Research Question 1.

Is there a difference between the rate of suicide in the military population versus the civilian population?

Research question 1 was addressed by first considering the total number of suicides in each service by year. As depicted in Figure 4 shows that while the Air Force, Navy, and Marine Corps numbers are relatively constant over the ten year period, the Army shows a steady increase from 102 suicides in 2006 to 167 suicides in 2011.
In order to compare populations, the total number of suicides is turned into a rate per 100,000 of the population. Figure 5 shows the rate per 100,000 in each service by year from 2001-2011. Results indicate that the Army and Marine Corps have rates that increased from 2006 to 2009; the Army rate continued to decrease, and the Marine Corps rate fell after 2009.
The DoD rate is a weighted average of all the service components. The Civilian rate is computed from the CDC data for all suicides. Figure 6 shows that the civilian rate increased slightly from 2001 to 2011 while there was a dramatic increase in the DoD rate from 2006 to 2011.
The populations of the DoD and Civilian are not comparable in terms of gender and age. The DoD population is comprised of approximately 85.7% males and 14.3% females (Bray, 2011). Figure 7 shows that the rate of suicide was significantly higher in males than in females in the general population and these rates remained fairly stable over time.
Since the DoD and Civilian population differ so dramatically, an adjustment for gender was used to make a comparison. The general civilian population was given the same demographic profile of the DoD. Figure 8 shows the rate in the civilian population adjusted for gender factors. It also shows that the civilian population remains stable above the DoD population until 2006 when the increase in rate in the DoD occurred and started to outpace the general population.
The chart in Figure 8 shows a dramatic spike in the suicide rate from 2007 to 2009. In order to compare the military and civilian suicide rates after this spike, a Chi-square test was used.

**Hypothesis 1.**

Hypothesis one tested whether the DOD suicide rate is higher than the civilian suicide rate

\[ H_o: \text{The two classifications are independent.} \]

\[ H_a: \text{The two classifications are dependent.} \]

Table 7 shows the number of DoD and Civilian personnel who committed suicide in 2010. It also shows the number of personnel who did not commit suicide. This is then used to calculate the expected number of suicides in each population.
Table 8: Observed and Expected number of Suicides in DOD and Civilian Pop. 2010

<table>
<thead>
<tr>
<th></th>
<th>Committed</th>
<th>Observed</th>
<th>Did Not Commit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOD</strong></td>
<td>295</td>
<td>1,683,790</td>
<td>1,684,085</td>
<td></td>
</tr>
<tr>
<td><strong>Civilian</strong></td>
<td>38,364</td>
<td>308,745,538</td>
<td>308,783,902</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>38,659</td>
<td>310,429,328</td>
<td>310,467,987</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Committed</th>
<th>Expected</th>
<th>Did Not Commit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOD</strong></td>
<td>210</td>
<td>1,683,875</td>
<td>1,684,085</td>
<td></td>
</tr>
<tr>
<td><strong>Civilian</strong></td>
<td>38,449</td>
<td>308,745,4453</td>
<td>308,783,902</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>38,659</td>
<td>310,429,328</td>
<td>310,467,987</td>
<td></td>
</tr>
</tbody>
</table>

A Chi-square test was used to compare each population to determine differences in them. Based on the Observed and Expected counts a Chi-Square is compared against the critical value with $\alpha = .05$ level of significance.

$$
\chi^2 = \sum \frac{(observed - expected)^2}{expected}
$$

(1)

$\chi^2 = 35$ and $\chi^2_{05} = 3.84$ ($\alpha=.05$). Since $\chi^2 > \chi^2_{05}$, results indicate that the observed counts do not closely agree and the hypothesis of independence is false. This means that we accept the alternative hypothesis that the number of suicides is dependent on the type of population; thus Hypothesis one is supported. The DoD suicide rate is higher than the suicide rate of the civilian population. The DoD rate is 17.52 versus the civilian suicide rate of 12.43.

**Research Question 2.**

Is there a difference between the rate of suicide in each Service Branch within the Department of Defense?

Research question two is addressed by testing hypotheses two and three.
Hypothesis 2.

Hypothesis two tested whether there was a difference between the rate of suicide in each service within the Department of Defense

\[ H_0: \text{The two classifications are independent.} \]

\[ H_a: \text{The two classifications are dependent.} \]

Table 8 shows the number of suicides for each branch of service that were committed in 2011. It also shows the number of people who did not commit suicide. This is then used to calculate the expected number of suicides in each population.

Table 9: Observed and Expected number of Suicides in each Branch of Service

<table>
<thead>
<tr>
<th></th>
<th>Committed</th>
<th>Observed</th>
<th>Did Not Commit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>167</td>
<td>729,258</td>
<td>729,425</td>
<td></td>
</tr>
<tr>
<td>Air Force</td>
<td>50</td>
<td>376,790</td>
<td>376,840</td>
<td></td>
</tr>
<tr>
<td>Navy</td>
<td>52</td>
<td>347,130</td>
<td>347,182</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>32</td>
<td>215,198</td>
<td>215,230</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>301</td>
<td>1,668,375</td>
<td>1,668,676</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Committed</th>
<th>Expected</th>
<th>Did Not Commit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>132</td>
<td>729,293</td>
<td>729,425</td>
<td></td>
</tr>
<tr>
<td>Air Force</td>
<td>68</td>
<td>376,772</td>
<td>376,840</td>
<td></td>
</tr>
<tr>
<td>Navy</td>
<td>63</td>
<td>347,119</td>
<td>347,182</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>39</td>
<td>215,192</td>
<td>215,230</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>301</td>
<td>1,668,375</td>
<td>1,668,676</td>
<td></td>
</tr>
</tbody>
</table>
\[ \chi^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}} \quad (1) \]

\[ \chi^2 = 17 \text{ and } \chi^2_{0.05} = 3.84 (\alpha = 0.05). \] Since \[ \chi^2 > \chi^2_{0.05} \], results indicate that the observed counts do not closely agree, and the hypothesis of independence is false. This means that we accept the alternative hypothesis that the number of suicides is dependent on the branch of service; thus hypothesis two is supported and there is a difference in the suicide rate between the branches of service.

**Hypothesis 3.**

Hypothesis three tested whether the Army has higher stress levels than other service branches

\[ H_0: \text{The mean stress level of the Army equals the mean stress level of other services} \]

\[ H_a: \text{The mean stress levels differ for at least two services} \]

ANOVA results are provided in Table 11 for the August 2008 through December 2009 survey data. In each case the computed F statistic (240.46, 80.61, 51.27, 82.57, and 83.42 respectively) is greater than the \[ F_{\alpha} = 2.60 (\alpha = 0.05); \] indicating the null hypothesis is rejected in favor of the alternative and conclude the mean stress levels differ for at least two branches of service categories.
Table 10: ANOVA of Stress by Branch of Service

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>ANOVA Stats for Stress by Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Aug-08</td>
<td>436.19</td>
</tr>
<tr>
<td>Nov-08</td>
<td>155.46</td>
</tr>
<tr>
<td>Apr-09</td>
<td>80.50</td>
</tr>
<tr>
<td>Aug-09</td>
<td>159.40</td>
</tr>
<tr>
<td>Dec-09</td>
<td>155.09</td>
</tr>
</tbody>
</table>

In order to determine which branch of services differed on mean stress levels the next step was to conduct an independent samples t-test. The results are provided in Table 12 of the independent sample t-tests between the Army and the other branches of service. The results indicated that the mean difference in stress levels between the Army and Navy differed significantly only in August 2009 (MD = -0.09, t = -4.09, df = 6027, p < .01). This result showed that the Navy’s mean stress level was higher which does not support hypothesis three. The results also indicate that the mean stress levels between the Army and Marine Corps differed in every survey from August 2008 through December 2009. Four of the five surveys support hypothesis four between the Army and Marine Corps. Results from the December 2009 survey did not indicate the Army mean stress level was higher than the Marine Corps mean stress level (MD = -0.02, t = -0.89, df = 5317, p = .38) which does not support the hypothesis. The Army had a higher mean stress level than the Air Force in all five surveys with the largest difference in Aug 2008 (MD = 0.33, t = 24.26, df = 13453, p = .00). These results indicate support for hypothesis three that the mean stress level is higher in the Army that the Air Force or Marine Corps. The difference is higher between the Army and Air Force than the Army.
and Marine Corps. There is not a significant difference between the Army and Navy to support hypothesis three with respect to these two services.

Table 11: Independent Samples t-test Stress by Branch of Service

<table>
<thead>
<tr>
<th>Service Pairing</th>
<th>Survey Year</th>
<th>M.D.</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Supports Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army-Navy</td>
<td>Aug-08</td>
<td>0.01</td>
<td>0.26</td>
<td>8515</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.02</td>
<td>0.67</td>
<td>6105</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apr-09</td>
<td>0.02</td>
<td>1.20</td>
<td>5994</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>-0.04</td>
<td>-1.95</td>
<td>5363</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dec-09</td>
<td>-0.09</td>
<td>-4.09</td>
<td>6027</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Army-Marine</td>
<td>Aug-08</td>
<td>0.05</td>
<td>2.47</td>
<td>7872</td>
<td>0.01</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.07</td>
<td>3.07</td>
<td>5598</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Apr-09</td>
<td>0.09</td>
<td>4.10</td>
<td>5406</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.07</td>
<td>2.77</td>
<td>4978</td>
<td>0.01</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Dec-09</td>
<td>-0.02</td>
<td>-0.89</td>
<td>5317</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>Army-Air Force</td>
<td>Aug-08</td>
<td>0.33</td>
<td>24.26</td>
<td>13453</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.30</td>
<td>14.45</td>
<td>6303</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Apr-09</td>
<td>0.21</td>
<td>11.55</td>
<td>6344</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.29</td>
<td>13.13</td>
<td>5559</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Dec-09</td>
<td>0.23</td>
<td>11.73</td>
<td>6284</td>
<td>0.00</td>
<td>✓</td>
</tr>
</tbody>
</table>

The chart in Figure 10 confirms the results of our ANOVA and t-tests that the mean stress level is different in different services. The t-test results showed that the Army and Marine Corps mean stress level was equal in the Dec 2009 survey. Also the Army and Navy mean stress levels were equal in the Aug 08, Nov 08, Apr 09, and Aug 09 surveys.
Research Question 3.

Is there a difference between the rate of suicide in different ranks of Department of Defense members?

Research question three is addressed by testing hypothesis four.

Hypothesis 4.

Hypothesis four tested whether E1-E4 have higher stress levels than other ranks

\[ H_0: \text{The mean stress level of E1-E4 equals the mean stress level of other ranks} \]

\[ H_a: \text{The mean stress levels differ for at least two rank categories} \]

An analysis of variance (ANOVA) was conducted to test the hypothesis. Results are provided in Table 9 of the ANOVA test for the five surveys from August 2008 to December 2009. In each case the computed F statistic (68.81, 59.90, 73.98, 58.79, and 51.73 respectively) is greater than the \( F_{a} = 2.37 \) (\( \alpha=0.05 \)); thus, the null hypothesis is
rejected in favor of the alternative. This test shows the mean stress levels differ for at least two rank categories.

Table 12: ANOVA for Stress by Paygrade

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>ANOVA Stats for Stress by Paygrade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Aug-08</td>
<td>170.64</td>
</tr>
<tr>
<td>Nov-08</td>
<td>154.11</td>
</tr>
<tr>
<td>Apr-09</td>
<td>152.89</td>
</tr>
<tr>
<td>Aug-09</td>
<td>151.50</td>
</tr>
<tr>
<td>Dec-09</td>
<td>128.80</td>
</tr>
</tbody>
</table>

In order to determine which rank categories differ, the next step was to conduct an independent samples t-test between the ranks of E1-E4 and E5-E9, O1-O3, and O4-O6. Results are provided in Table 10 of an independent samples t-test between the different rank pairings. The results show that in every case the mean stress level is higher in group E1-E4 than any other rank group for each survey conducted. The average (MD = 0.26, p < .01). Therefore, the data suggests hypothesis four is supported and E1-E4 have higher mean stress levels than other paygrades.
Table 13: Independent Samples T-Test Results between Ranks

<table>
<thead>
<tr>
<th>Rank Pairing</th>
<th>Survey Year</th>
<th>M.D.</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Supports Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1-E4 to E5-E9</td>
<td>Aug-08</td>
<td>0.22</td>
<td>11.18</td>
<td>8285</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.13</td>
<td>5.91</td>
<td>6271</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Apr-09</td>
<td>0.16</td>
<td>8.33</td>
<td>6781</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.22</td>
<td>9.39</td>
<td>5636</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Dec-09</td>
<td>0.15</td>
<td>6.71</td>
<td>6303</td>
<td>0.00</td>
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</tr>
<tr>
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<td>Aug-09</td>
<td>0.26</td>
<td>14.46</td>
<td>9179</td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.23</td>
<td>8.53</td>
<td>3810</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Apr-09</td>
<td>0.27</td>
<td>11.23</td>
<td>3870</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.29</td>
<td>10.43</td>
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<td>✓</td>
</tr>
<tr>
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<td>Dec-09</td>
<td>0.24</td>
<td>9.62</td>
<td>3993</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.34</td>
<td>14.73</td>
<td>5000</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nov-08</td>
<td>0.38</td>
<td>14.81</td>
<td>3902</td>
<td>0.00</td>
<td>✓</td>
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<tr>
<td></td>
<td>Apr-09</td>
<td>0.36</td>
<td>15.66</td>
<td>4106</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Aug-09</td>
<td>0.38</td>
<td>14.12</td>
<td>3698</td>
<td>0.00</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Dec-09</td>
<td>0.33</td>
<td>13.30</td>
<td>4023</td>
<td>0.00</td>
<td>✓</td>
</tr>
</tbody>
</table>

Figure 10 below shows the trend of perceived stress in each paygrade over time from each survey. This chart matches the results of our ANOVA and t-tests that the mean stress level is different in different paygrades.

Figure 10: Mean Stress Level vs. Paygrade from Aug 08 to Dec 09 surveys
V. Conclusions and Recommendations

Introduction

The purpose of this study was to identify any data that would enable commanders to recognize high risk individuals in their units. Suicide data was collected from the DoD Suicide Event Reports and from the Defense Manpower Data Center Status of Forces of Active Duty Personnel to test for corresponding increases in mean perceived stress levels of military members. This study is unique in the timeliness of the research matched the recent increase in suicide events within the DoD.

Individual Characteristics

This study supports the idea that more junior individuals perceive higher levels of stress than more senior individuals in the survey. The higher levels of stress coincide with higher rates of suicide among younger individuals than with older individuals. The study also found that there was a significant difference in perceived stress level between the Army and Air Force. The study also indicated that once the suicide rate in the military population is adjusted for gender it has increased over time while the civilian rate remains stable.

Limitations

Suicide events are rare. The circumstances surrounding a suicide are seldom known before the event occurs. Identifying prevention programs that are effective at reducing suicide deaths is difficult because of the lag in the availability of suicide data (Acosta, 2012). Low suicide base rate events also present significant challenges in analyzing the data. Rate estimates with fewer than 20 suicides in a specific category
generally are unstable (Acosta, 2012). Unstable means the results are highly variable when the number of suicides changes by a small factor. This results in dramatic changes to the rate estimate.

**Future Research**

Future research should focus on the objective outcomes of suicide prevention programs. Studying how the suicide rates compare before and after the implementation of an individual program can aid in establishing best practices between each branch of service. Determining what prevention programs suicide victims were exposed to before the incident may also help in determining the effectiveness of those programs.

Another focus for study is assessing the other five suicide prevention program goals of raising awareness, facilitating access to quality care, providing quality care, restricting access to lethal means, and responding appropriately to suicides that are not addressed in this study. Specifically, studying the preceptions of accessing mental health care in military members can tailor help for those in need of care. Addressing any barriers to mental health is a topic that needs focus on in any comprehensive suicide prevention program.

**Conclusions**

Suicide is a preventable mental health condition (Science Writing, Press & Dissemination Branch, 2013). A comprehensive suicide prevention program starts with the organization and leadership to build protective factors in unit members. It also needs to provide access to quality mental health care, promote total wellness and training, and sustain surveillance efforts for continuing research. Commander’s need tools to identify at risk individuals in their units to ensure these members receive the mental health care appropriate for the situation. One such tool is the perceived stress scale (Appendix A).
Commander’s can use this tool to identify members that exhibit elevated stress levels and allocate resources to provide care. Any suicide prevention program must increase the protective factors of psychological, spiritual, family, physical, emotional, social, financial, and vocational while simultaneously reducing the risk factors.

The military population differs from the civilian population in both demographics and nature of risk factors. Therefore, any DoD suicide prevention program should be tailored with specific risk factors in mind. Differences in mean stress levels are present among the branches of service therefore a DoD suicide prevention program should be adapted to the specific needs of each service.

Lastly, this study shows that junior military members experience higher average levels of stress. Commander’s may be able to directly influence and reduce the amount of stress these individuals perceive by including measures to enhance life skills and interpersonal relationships. Education targeted toward the reduction of substance abuse and other risky behaviors can reduce the amount of perceived stress.
Appendix A: Perceived Stress Scale

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

Name __________________________________________ Date ______
Age _____ Gender (Circle): M F

0 = Never  1 = Almost Never  2 = Sometimes  3 = Fairly Often  4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly? 0 1 2 3 4
2. In the last month, how often have you felt that you were unable to control the important things in your life? 0 1 2 3 4
3. In the last month, how often have you felt nervous and “stressed”? 0 1 2 3 4
4. In the last month, how often have you felt confident about your ability to handle your personal problems? 0 1 2 3 4
5. In the last month, how often have you felt that things were going your way? 0 1 2 3 4
6. In the last month, how often have you found that you could not cope with all the things that you had to do? 0 1 2 3 4
7. In the last month, how often have you been able to control irritations in your life? 0 1 2 3 4
8. In the last month, how often have you felt that you were on top of things? 0 1 2 3 4
9. In the last month, how often have you been angered because of things that were outside of your control? 0 1 2 3 4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? 0 1 2 3 4
## Appendix B: CDC Suicide Data

Table 14: WISQARS Suicide Data by Year and Gender

<table>
<thead>
<tr>
<th>Sex</th>
<th>Year</th>
<th>Number of Deaths</th>
<th>Population***</th>
<th>Crude Rate</th>
<th>Age-Adjusted Rate**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>2000</td>
<td>23,618</td>
<td>138,053,563</td>
<td>17.11</td>
<td>17.75</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>24,672</td>
<td>139,891,492</td>
<td>17.64</td>
<td>18.17</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>25,409</td>
<td>141,230,559</td>
<td>17.99</td>
<td>18.49</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>25,203</td>
<td>142,428,897</td>
<td>17.7</td>
<td>18.09</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>25,566</td>
<td>143,828,012</td>
<td>17.78</td>
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</tr>
<tr>
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<td>25,907</td>
<td>145,197,078</td>
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<tr>
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<td>26,308</td>
<td>146,647,265</td>
<td>17.94</td>
<td>18.1</td>
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<td>2007</td>
<td>27,269</td>
<td>148,064,854</td>
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<td>18.52</td>
</tr>
<tr>
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<td>19.03</td>
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<td>150,807,454</td>
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<td>19.23</td>
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<tr>
<td></td>
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<td>19.78</td>
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<tr>
<td></td>
<td></td>
<td>291,768</td>
<td>1,597,420,451</td>
<td></td>
<td>18.26</td>
</tr>
<tr>
<td>Females</td>
<td>2000</td>
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<td>143,368,343</td>
<td>4</td>
<td>3.97</td>
</tr>
<tr>
<td></td>
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<td>5,950</td>
<td>145,077,463</td>
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<tr>
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<td>6,246</td>
<td>146,394,634</td>
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Table 15: WISQARS Suicide Data by Age Group, Year, and Gender

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sex</th>
<th>Year</th>
<th>No. of Deaths</th>
<th>Population</th>
<th>Crude Death Rate</th>
<th>Sex</th>
<th>Year</th>
<th>No. of Deaths</th>
<th>Population</th>
<th>Crude Death Rate</th>
</tr>
</thead>
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<tr>
<td>18-24</td>
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<td>2000</td>
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<td>F</td>
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<td>409</td>
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<td>2,815</td>
<td>14,334,430</td>
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<td>533</td>
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<td>15,102,513</td>
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<td>2005</td>
<td>535</td>
<td>14,339,033</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>2006</td>
<td>2,979</td>
<td>15,200,885</td>
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<td>489</td>
<td>14,401,954</td>
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<td>2007</td>
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<td>15,466,154</td>
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<td>8.91</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Warrant Officer</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Duty</td>
<td>235</td>
<td>16.9</td>
<td>285</td>
<td>19.87</td>
<td>269</td>
<td>17.52</td>
</tr>
<tr>
<td>Reserve</td>
<td>12</td>
<td>8</td>
<td>9</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Guard</td>
<td>21</td>
<td>16</td>
<td>17</td>
<td>22</td>
<td>16.15</td>
<td></td>
</tr>
<tr>
<td>Ed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GED</td>
<td>24</td>
<td>24.1</td>
<td>44</td>
<td>45.21</td>
<td>26</td>
<td>29.91</td>
</tr>
<tr>
<td>HS</td>
<td>170</td>
<td>16.4</td>
<td>209</td>
<td>20.01</td>
<td>206</td>
<td>19.77</td>
</tr>
<tr>
<td>Some College</td>
<td>4</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>25</td>
<td>9</td>
<td>18</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Year College</td>
<td>18</td>
<td>17</td>
<td>18</td>
<td>22</td>
<td>12.54</td>
<td></td>
</tr>
<tr>
<td>Master's</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't Know</td>
<td>7</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>125</td>
<td>15.2</td>
<td>106</td>
<td>16.2</td>
<td>125</td>
<td>18.99</td>
</tr>
<tr>
<td>Married</td>
<td>147</td>
<td>15.9</td>
<td>158</td>
<td>16.94</td>
<td>147</td>
<td>15.64</td>
</tr>
<tr>
<td>Legally Separated</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>20</td>
<td>27.6</td>
<td>37</td>
<td>49.61</td>
<td>20</td>
<td>24.2</td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't Know</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D: December 2009 Status of Forces Survey of Active Duty Members

December 2009 Status of Forces Survey of Active Duty Members

BACKGROUND INFORMATION

1. In what Service were you on active duty on December 7, 2009?
   - Army
   - Navy
   - Marine Corps
   - Air Force
   - None, I have separated or retired

******** Page Break ********

BACKGROUND INFORMATION

2. What is your current paygrade? Mark one.
   - E-1
   - E-2
   - E-3
   - E-4
   - E-5
   - E-6
   - E-7
   - E-8
   - E-9
   - W-1
   - W-2
   - W-3
   - W-4
   - W-5
   - O-1/O-1E
   - O-2/O-2E
   - O-3/O-3E
   - O-4
   - O-5
   - O-6 or above

******** Page Break ********

BACKGROUND INFORMATION

3. What is your marital status?
   - Married
   - Separated
   - Divorced
   - Widowed
   - Never married
4. How many years have you been in a relationship with your current significant other (that is, your girlfriend or boyfriend)?
   - Does not apply; I do not have a girlfriend/boyfriend
   - Less than 1 year
   - 1 year to less than 6 years
   - 6 years to less than 10 years
   - 10 years or more
In the following section, you will be asked questions about your spouse's employment status in enough detail to ensure comparability with national employment surveys.

5. Is your spouse currently serving on active duty (not a member of the National Guard or Reserve)?
   - Yes
   - No

6. Is your spouse currently serving as a member of the National Guard or Reserve in a full-time, active duty program (AGR/FTS/AR)?
   - Yes
   - No

7. Is your spouse currently serving as a member of another type of National Guard or Reserve unit (e.g., drilling unit, Individual Mobilization Augmentee (IMA), Individual Ready Reserve (IRR))?
   - Yes
   - No

8. Last week, did your spouse do any work for pay or profit? Mark "Yes" even if your spouse worked only one hour, or helped without pay in a family business or farm for 15 hours or more.
   - Yes
   - No
9. Last week, was your spouse temporarily absent from a job or business?
   - Yes, on vacation, temporary illness, labor dispute, etc.
   - No

******** Page Break *********

BACKGROUND INFORMATION

10. Has your spouse been looking for work during the last 4 weeks?
   - Yes
   - No

******** Page Break *********

BACKGROUND INFORMATION

11. Last week, could your spouse have started a job if offered one, or returned to work if recalled?
   - Yes, could have gone to work
   - No, because of his/her temporary illness
   - No, because of other reasons (in school, etc.)

******** Page Break *********

BACKGROUND INFORMATION

12. What is the highest degree or level of school that you have completed? Mark the one answer that describes the highest grade or degree that you have completed.
   - 12 years or less of school (no diploma)
   - High school graduate — traditional diploma
   - High school graduate — alternative diploma (home school, GED, etc.)
   - Some college credit, but less than 1 year
   - 1 or more years of college, no degree
   - Associate's degree (e.g., AA, AS)
   - Bachelor's degree (e.g., BA, AB, BS)
   - Master's, doctoral, or professional school degree (e.g., MA, MS, MEd, MEng, MBA, MSW, PhD, MD, JD, DVM, EdD)

******** Page Break *********

BACKGROUND INFORMATION

For the next questions, the definition of "child, children, or other legal dependents" includes anyone in your family, except your spouse, who has, or is eligible to have, a Uniformed Services Identification and Privilege card (also called a military ID card) or is eligible for military health
care benefits, and is enrolled in the Defense Enrollment Eligibility Reporting System (DEERS).

13. Do you have a child, children, or other legal dependents based on the definition above?
   ✔ Yes
   ☐ No

********* Page Break **********

BACKGROUND INFORMATION

14. How many children or other legal dependents do you have in each age group? Mark one answer in each row. To indicate none, select "0". To indicate nine or more, select "9".

<table>
<thead>
<tr>
<th>Age Group</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years and younger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - 9 years old</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 - 22 years old</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 years and older</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

********* Page Break **********

BACKGROUND INFORMATION

15. Are you Spanish/Hispanic/Latino?
   ✔ No, not Spanish/Hispanic/Latino
   ☐ Yes, Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, or other Spanish/Hispanic/Latino

********* Page Break **********

BACKGROUND INFORMATION

16. What is your race? Mark one or more races to indicate what race you consider yourself to be.
   ☑ White
   ☑ Black or African-American
   ☑ American Indian or Alaska Native
   ☑ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
   ☑ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian or Chamorro)

********* Page Break **********
17. Where is your permanent duty station (homeport) located?

- In one of the 50 states, D.C., Puerto Rico, or a U.S. territory or possession
- Europe (e.g., Bosnia-Herzegovina, Germany, Italy, Serbia, United Kingdom)
- Former Soviet Union (e.g., Russia, Tajikistan, Uzbekistan)
- East Asia and Pacific (e.g., Australia, Japan, Korea)
- North Africa, Near East, or South Asia (e.g., Bahrain, Kuwait, Saudi Arabia, Diego Garcia)
- Sub-Saharan Africa (e.g., Kenya, South Africa)
- Western Hemisphere (e.g., Cuba, Honduras, Peru)
- Other or not sure

******** Page Break ********

BACKGROUND INFORMATION

Please select from the list below your permanent duty station location (homeport) within one of the 50 states, D.C., Puerto Rico, or a U.S. territory or possession.

Please select

******** Page Break ********

BACKGROUND INFORMATION

Please specify the name of the country or installation where your permanent duty station (homeport) is located.

******** Page Break ********

BACKGROUND INFORMATION

18. Where do you live at your permanent duty station?

- Aboard ship
- Barracks/dorm/BEQ/UEPH/BOQ/UOPH military facility
- Military family housing, on base
- Military family housing, off base
- Privatized military housing that you rent on base
- Privatized military housing that you rent off base
- Civilian/community housing that you own or pay mortgage on
- Civilian/community housing that you rent
- Other

******** Page Break ********
BACKGROUND INFORMATION

Please specify where you live at your permanent duty station.

******** Page Break ********

SATISFACTION

19. Taking all things into consideration, how satisfied are you, in general, with each of the following aspects of being in the military?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Your total compensation (i.e., base pay, allowances, and bonuses)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The type of work you do in your military job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Your opportunities for promotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The quality of your coworkers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. The quality of your supervisor</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

******** Page Break ********

SATISFACTION

20. Overall, how satisfied are you with the military way of life?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

******** Page Break ********

RETENTION

21. How many years of active duty service have you completed (including enlisted, warrant officer, and commissioned officer time)? To indicate less than 1 year, enter "0". To indicate 35 years or more, enter "35".
   - [ ] Years
22. Suppose that you have to decide whether to stay on active duty. Assuming you could stay, how likely is it that you would choose to do so?
- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

23. Does your spouse or significant other think you should stay on or leave active duty?
- Strongly favors staying
- Somewhat favors staying
- Has no opinion one way or the other
- Somewhat favors leaving
- Strongly favors leaving

24. Does your family think you should stay on or leave active duty?
- Strongly favors staying
- Somewhat favors staying
- Has no opinion one way or the other
- Somewhat favors leaving
- Strongly favors leaving

25. To what extent do you agree or disagree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I enjoy serving in the military.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Serving in the military is consistent with my personal goals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
c. If I left the military, I would feel like I am starting all over again.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

d. I would feel guilty if I left the military.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

e. Generally, on a day-to-day basis, I am happy with my life in the military.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

(Continued) To what extent do you agree or disagree with the following statements?

f. It would be difficult for me to leave the military and give up the benefits that are available in the Service.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

g. I would not leave the military right now because I have a sense of obligation to the people in it.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

h. I really feel as if the military's values are my own.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

i. I would have difficulty finding a job if I left the military.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

j. Generally, on a day-to-day basis, I am proud to be in the military.

(Continued) To what extent do you agree or disagree with the following statements?

k. If I left the military, I would feel like I had let my country down.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

l. I continue to serve in the military because leaving would require considerable sacrifice.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

m. I feel like being a member of the military can help me achieve what I want in life.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

n. One of the problems with leaving the military would be the lack of available alternatives.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

o. I am committed to making the military my career.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

******** Page Break **********

RETENTION

26. When you leave active duty, how likely is it that you will join a National Guard or Reserve unit?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not apply, retiring or otherwise ineligible</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Very likely
Likely
Neither likely nor unlikely
Unlikely
Very unlikely

TEMPO

27. Have you ever made a Permanent Change of Station (PCS)?

☐ Yes
☐ No

TEMPO

28. How many months has it been since your last PCS? To indicate less than one month, enter "0". To indicate more than 99 months, enter "99".

☐ Months

TEMPO

29. In the past 12 months, how many days have you had to work longer than your normal duty day (i.e., overtime)? To indicate none, enter "0".

☐ Days

TEMPO

30. In the past 12 months, how many nights have you been away from your permanent duty station (homeport) because of your military duties? To indicate none, enter "0".

☐ Nights

TEMPO

31. In the past 24 months, have you been deployed longer than 30 consecutive days?
32. Are you currently on a deployment that has lasted longer than 30 consecutive days?

- Yes
- No

33. Where are you currently deployed?

- In one of the 50 states, D.C., Puerto Rico, or a U.S. territory or possession
- Afghanistan
- Iraq
- Other North African, Near Eastern or South Asian country (e.g., Bahrain, Kuwait, Saudi Arabia, Diego Garcia)
- Europe (e.g., Bosnia-Herzegovina, Germany, Italy, Serbia, United Kingdom)
- Former Soviet Union (e.g., Russia, Tajikistan, Uzbekistan)
- East Asia and Pacific (e.g., Australia, Japan, Korea)
- Sub-Saharan Africa (e.g., Kenya, Liberia, South Africa)
- Western Hemisphere (e.g., Cuba, Honduras, Peru)
- Other or not sure

Please select from the list below your deployment location within one of the 50 states, D.C., Puerto Rico, or a U.S. territory or possession.

Please enter the name of the country or installation where you are currently deployed.
34. In the past 12 months, have you spent more or less time away from your permanent duty station (homeport) than you expected when you first entered the military?
- Much more than expected
- More than expected
- Neither more nor less than expected
- Less than expected
- Much less than expected

35. What impact has time away (or lack thereof) from your permanent duty station (homeport) in the past 12 months had on your military career intentions?
- Greatly increased your desire to stay
- Increased your desire to stay
- Neither increased nor decreased your desire to stay
- Decreased your desire to stay
- Greatly decreased your desire to stay

36. Overall, how well prepared are you to perform your wartime job?
- Very well prepared
- Well prepared
- Neither well nor poorly prepared
- Poorly prepared
- Very poorly prepared

37. Overall, how well prepared is your unit to perform its wartime mission?
- Very well prepared
- Well prepared
- Neither well nor poorly prepared
- Poorly prepared
- Very poorly prepared
38. How well has your training prepared you to perform your wartime job?
   - Very well
   - Well
   - Neither well nor poorly
   - Poorly
   - Very poorly

39. How well has your training prepared you to perform your wartime job in support of joint operations?
   - Very well
   - Well
   - Neither well nor poorly
   - Poorly
   - Very poorly

40. Overall, how would you rate the current level of stress in your work life?
   - Much less than usual
   - Less than usual
   - About the same as usual
   - More than usual
   - Much more than usual

41. Overall, how would you rate the current level of stress in your personal life?
   - Much less than usual
   - Less than usual
   - About the same as usual
   - More than usual
Much more than usual

******** Page Break ********

STRESS

42. In the past month, how often have you...

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Almost never</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Felt nervous and stressed?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>b. Felt that you were unable to control the important things in your life?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>c. Been upset because of something that happened unexpectedly?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>d. Been angered because of things that were outside of your control?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>e. Felt difficulties were piling up so high that you could not overcome them?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>f. Found that you could not cope with all of the things you had to do?</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
</tbody>
</table>

******** Page Break ********

DEPLOYMENTS SINCE SEPTEMBER 11, 2001

43. Since September 11, 2001, how many times have you been deployed for any of the following operations? Mark one answer in each row. To indicate none, select "0 times".

<table>
<thead>
<tr>
<th></th>
<th>0 times</th>
<th>1 time</th>
<th>2 times</th>
<th>3 or more times</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Operation Noble Eagle (airport security)</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>b. Operation Enduring Freedom (Afghanistan)</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>c. Operation Iraqi Freedom</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
<tr>
<td>d. Other</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
<td>mlj</td>
</tr>
</tbody>
</table>

******** Page Break ********

DEPLOYMENTS SINCE SEPTEMBER 11, 2001

Please specify the other operation for which you were deployed since September 11, 2001.

[ ]
44. Since September 11, 2001, how many times have you been deployed?
   □ Times

45. Since September 11, 2001, what is the total number of days you have been away from your permanent duty station (homeport)?
   □ Days

46. Since September 11, 2001, have you been deployed to a combat zone or an area where you drew imminent danger pay or hostile fire pay?
   □ Yes
   □ No

47. Since September 11, 2001, how many days have you been deployed to a combat zone?
   □ Days

48. For your most recent deployment, how many months have you been or were you deployed to an area where you drew imminent danger pay or hostile fire pay? Include partial months. For example, even if you were deployed to a combat zone for 2 days, and those days were in different months, enter "2".
   □ Months
49. Were you involved in combat operations?
   - Yes
   - No

50. Are you currently deployed to a combat zone or an area where you are drawing imminent danger pay or hostile fire pay?
   - Yes
   - No

51. Were any of your deployments since September 11, 2001 longer than you expected?
   - Yes
   - No

52. Since September 11, 2001, have you been under stop-loss at any time?
   - Yes
   - No

53. While you were away during your most recent deployment, to what extent were the following a concern?

   a. Spouse's job or education demands
   b. Managing bills and expenses
   c. Household repairs, yard work, or car maintenance
   d. Loss of income from part-time job

IMPACT OF DEPLOYMENTS
e. Safety of your family in their community
f. Your feelings of anxiety or depression
g. Serious health problems in the family

(Continued) While you were away during your most recent deployment, to what extent were the following a concern?

<table>
<thead>
<tr>
<th>Concern</th>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>h. Serious emotional problems in the family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Technical difficulties communicating with spouse/family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Difficulty maintaining emotional connection with spouse/family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>k. Major financial hardship or bankruptcy</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>l. Birth or adoption of a child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Marital problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Your feelings of loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Continued) While you were away during your most recent deployment, to what extent were the following a concern?

<table>
<thead>
<tr>
<th>Concern</th>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>o. Managing child care/child schedules</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p. Increased need for child care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>q. Lack of free/personal time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r. Your difficulty sleeping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s. Unintended weight gain or loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t. Your ability to continue your college education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>u. Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

******* Page Break *******

IMPACT OF DEPLOYMENTS

Please specify your other concern while you were away during your most recent deployment.
**IMPACT OF DEPLOYMENTS**

54. After your most recent deployment, to what extent were you likely to... Mark one answer in each row.

<table>
<thead>
<tr>
<th></th>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Be more emotionally distant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g., less talkative, less</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>affectionate, less interested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in social life)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Appreciate life more?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Get angry faster?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Appreciate your family and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>friends more?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Drink more alcohol?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Have more confidence in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>yourself?</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Take more risks with your</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>safety?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Be different in another</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IMPACT OF DEPLOYMENTS**

How were you different after your most recent deployment?
55. Did you receive support services (e.g., support groups, counseling) after returning home from your most recent deployment?
- Yes, and it helped
- Yes, but it did not help
- No, I did not want support services
- No, but I wanted support services
- Don't know

******* Page Break **********

IMPACT OF DEPLOYMENTS

56. Have you had reunion and reintegration support from any of the following sources? Mark "Yes" or "No" for each item.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Family Readiness/Support Group</td>
<td></td>
</tr>
<tr>
<td>b. Military OneSource</td>
<td></td>
</tr>
<tr>
<td>c. Faith based organization (e.g., church, synagogue, mosque)</td>
<td></td>
</tr>
<tr>
<td>d. Services in your civilian community</td>
<td></td>
</tr>
<tr>
<td>e. Other military-sponsored program</td>
<td></td>
</tr>
<tr>
<td>f. Other program</td>
<td></td>
</tr>
</tbody>
</table>

******* Page Break **********

IMPACT OF DEPLOYMENTS

57. In response to being deployed, did you talk to anyone about...

<table>
<thead>
<tr>
<th>Yes, and it helped me</th>
<th>Yes, but it did not help me</th>
<th>No, and I did not want to talk to anyone about this topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Problem solving?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Coping with stress?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Financial management?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Family issues?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Marital issues?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Continued) In response to being deployed, did you talk to anyone about...

<table>
<thead>
<tr>
<th>Yes, and it helped me</th>
<th>Yes, but it did not help me</th>
<th>No, and I did not want to talk to someone about this topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Problem solving?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Coping with stress?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Financial management?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Family issues?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Marital issues?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No, but I wanted to
f. Dealing with family separations? Yes, and it helped me    Yes, but it did not help me    not want to talk to anyone about this topic   talk to someone about this topic

g. Parent/child communication?    

h. Deployment and reunion?    
i. Crisis situations?    
j. Grief and loss?    

****** Page Break **********

IMPACT OF DEPLOYMENTS

58. Which of the following describes your readjustment to being back at home after your most recent deployment?

- Very easy
- Easy
- Neither easy nor difficult
- Difficult
- Very difficult

****** Page Break **********

IMPACT OF DEPLOYMENTS

59. During your most recent deployment, did you have any children ages 18 or under living with you either part-time or full-time?

- Yes, one child
- Yes, more than one child
- No

****** Page Break **********

IMPACT OF DEPLOYMENTS

60. In response to your most recent deployment, did your child(ren) experience any of the following behavioral changes? Mark one answer in each row. Where your child(ren)'s behavior did not change, please mark "No change".

<table>
<thead>
<tr>
<th>Behavioral Change</th>
<th>Increased</th>
<th>No change</th>
<th>Decreased</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Academic performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Problem behavior at school</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Problem behavior at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. Pride in having a military parent

e. Fear/anxiety

f. Independence

(Continued) In response to your most recent deployment, did your child(ren) experience any of the following behavioral changes? Mark one answer in each row. Where your child(ren)’s behavior did not change, please mark "No change".

<table>
<thead>
<tr>
<th>Increased</th>
<th>No change</th>
<th>Decreased</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>g. Being responsible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Closeness to family members</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Closeness to friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Distress over discussions of the war in the home, school, or media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Anger about my military requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Other behavior(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

********** Page Break **********

IMPACT OF DEPLOYMENTS

Please specify what other behavioral change(s) your child(ren) experienced in response to your most recent deployment.

********** Page Break **********

IMPACT OF DEPLOYMENTS

61. How important are the following in your child(ren)’s ability to cope with your deployments? Mark one answer in each row.

<table>
<thead>
<tr>
<th>Very important</th>
<th>Important</th>
<th>Moderately important</th>
<th>Somewhat important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Communications with the deployed parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Spouse/guardian support for the deployment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Spouse/guardian ability to maintain a stable household routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. Caregiver/teacher reaction to deployment

e. The way family members deal with the deployment

f. Geographic stability during deployment (i.e., no relocations, changes in schools)

g. Limited exposure to media coverage of the war

h. Other

******** Page Break ********

IMPACT OF DEPLOYMENTS

Please specify other important factors that help your child(ren) cope with deployments.

******** Page Break ********

DETAILS ON OPS/PERSTEMPO

62. During the past 12 months, were you away from your permanent duty station for the following duties?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

******** Page Break ********

DETAILS ON OPS/PERSTEMPO

63. How satisfied are you with deployment compensation and incentives (i.e., tax-free income, family separation pay, hazardous duty pay)?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Satisfied</td>
</tr>
<tr>
<td>Very satisfied</td>
</tr>
</tbody>
</table>

******** Page Break ********

72
Neither satisfied nor dissatisfied
Dissatisfied
Very dissatisfied

64. What was your primary reason for being dissatisfied with deployment compensation and incentives?

- Considering risk and hardship, compensation was too little
- Other members facing far less risk were getting as much as I was getting
- Considering the risk and hardship, compensation was too high
- The incentives do not vary with paygrade
- Other

65. While you were away during the past 12 months, did you use any of the following to communicate with family or friends?

- Internet
- Commercial telephone
- DSN telephone
- Military exchange-provided telephone
- Postal/telegram services
- Video communications
66. While you were away during the past 12 months, how often did you use the Internet to communicate with family or friends?

- Daily
- Three or four times a week
- One or two times a week
- Less than once a week
- Less than once a month

67. How satisfied were you with the opportunities (i.e., frequency and duration) you were given to contact family or friends using the Internet while you were away?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

68. Where did you most often access the Internet?

- Work computer
- MWR Internet cafe
- Personal computer with AAFES Internet service at personal expense
- Personal computer with commercial provider at personal expense

69. How much, on average, did you spend per month to purchase Internet access?

- $0, I used free MWR Internet cafes
- Less than $40
- $40 to less than $60
- $60 to less than $80
- More than $80
70. While you were away during the past 12 months, how often did you use commercial telephones to communicate with family or friends?

- Daily
- Three or four times a week
- One or two times a week
- Less than once a week
- Less than once a month

71. How much, on average, did you spend per month to use commercial telephones to communicate with family or friends?

- None
- Less than $20
- $20 to less than $40
- $40 to less than $60
- $60 or more

72. How satisfied were you with the opportunities (i.e., frequency and duration) you were given to communicate with family or friends using commercial telephones while you were away?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

73. While you were away during the past 12 months, how often did you communicate with family or friends using DSN telephones?

- Daily
Three or four times a week
One or two times a week
Less than once a week
Less than once a month

DETAILS ON OPS/PERSTEMPO

74. How much, on average, did you spend per month to use a DSN telephone commercial patch to make personal calls using prepaid calling cards?
- None
- Less than $20
- $20 to less than $40
- $40 to less than $60
- $60 or more

DETAILS ON OPS/PERSTEMPO

75. How much, on average, did you spend per month to use a DSN telephone commercial patch to make personal calls using other payment methods? (Include costs of calling cards [not prepaid], credit cards, and collect calls.)
- None
- Less than $20
- $20 to less than $40
- $40 to less than $60
- $60 or more

DETAILS ON OPS/PERSTEMPO

76. How satisfied were you with the opportunities (i.e., frequency and duration) you were given to communicate with family or friends using DSN telephones while you were away?
- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied
77. While you were away during the past 12 months, how often did you use military exchange-provided telephones to communicate with family or friends?

- Daily
- Three or four times a week
- One or two times a week
- Less than once a week
- Less than once a month

78. How much, on average, did you spend per month to use a military exchange-provided telephone to make personal calls using prepaid calling cards?

- None
- Less than $20
- $20 to less than $40
- $40 to less than $60
- $60 or more

79. How much, on average, did you spend per month to use a military exchange-provided telephone to make personal calls using other payment methods? (Include costs of calling cards [not prepaid], credit cards, and collect calls.)

- None
- Less than $20
- $20 to less than $40
- $40 to less than $60
- $60 or more

80. How satisfied were you with the opportunities (i.e., frequency and duration) you were given to contact family or friends using military exchange-provided telephones while you were away?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
Very dissatisfied

DETAILS ON OPS/PERSTEMPO

81. How satisfied were you with the postal/telegram service while you were away?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

DETAILS ON OPS/PERSTEMPO

82. What was your primary problem with the postal service?
   - I did not receive all of the letters/packages that were sent to me
   - I received too much mail
   - There was far too much delay in receiving mail
   - Packages were delivered to me while I was in a war zone and I could not do anything with them
   - Other

DETAILS ON OPS/PERSTEMPO

Please specify your primary problem with the postal service.

DETAILS ON OPS/PERSTEMPO

83. While you were away during the past 12 months, how often did you use video communications to communicate with family or friends?
   - Daily
Three or four times a week
One or two times a week
Less than once a week
Less than once a month

DETAILS ON OPS/PERSTEMPO

84. How satisfied were you with the opportunities (i.e., frequency and duration) you were given to contact family or friends using video communications while you were away?

Very satisfied
Satisfied
Neither satisfied nor dissatisfied
Dissatisfied
Very dissatisfied

PERMANENT CHANGE OF STATION (PCS) MOVES

85. During your active duty career, how many PCSs have you made? (Include PCS for a remote or unaccompanied assignment.)

PCS moves

PERMANENT CHANGE OF STATION (PCS) MOVES

86. During your active duty career, how many times did your family members move to a new location because of your PCS?

Times

PERMANENT CHANGE OF STATION (PCS) MOVES

87. For your most recent PCS move, to what extent were the following a problem?

<table>
<thead>
<tr>
<th></th>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Change in PCS orders (report date or destination)</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
</tr>
<tr>
<td>b. Hours and/or location of offices providing PCS assistance</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
<td>✜</td>
</tr>
</tbody>
</table>
c. Waiting for permanent housing to become available
   ![Rating SCALE]
d. Selling or renting out your former residence
   ![Rating SCALE]
e. Purchasing or renting your current residence
   ![Rating SCALE]
f. Amount of time to prepare for move
   ![Rating SCALE]
g. Packing of household goods
   ![Rating SCALE]
h. Shipping/storing household goods
   ![Rating SCALE]

(Continued) For your most recent PCS move, to what extent were the following a problem?

<table>
<thead>
<tr>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a problem</th>
</tr>
</thead>
</table>

i. Availability of non-base temporary lodging or nearby commercial lodging
   ![Rating SCALE]

j. Making a reservation for PCS lodging
   ![Rating SCALE]

k. Temporary lodging expenses
   ![Rating SCALE]

l. Costs related to security deposit(s)
   ![Rating SCALE]

m. Costs of moving pets
   ![Rating SCALE]
n. Costs of moving vehicles
   ![Rating SCALE]

o. Costs of setting up new residence (e.g., curtains, carpeting, painting)
   ![Rating SCALE]

(Continued) For your most recent PCS move, to what extent were the following a problem?

p. Settling damage claims
   ![Rating SCALE]

q. Non-reimbursed transportation costs incurred during the move
   ![Rating SCALE]
r. Timeliness of reimbursements
   ![Rating SCALE]
s. Accuracy of reimbursements
   ![Rating SCALE]
t. Change in cost of living
   ![Rating SCALE]
u. Transferability of college credits
   ![Rating SCALE]
v. Time off at destination to complete move
   ![Rating SCALE]

******* Page Break *******

PERMANENT CHANGE OF STATION (PCS) MOVES

88. For your most recent PCS move, to what extent were the following a problem?

<table>
<thead>
<tr>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a problem</th>
</tr>
</thead>
</table>

**********
a. Loss or decrease of spouse income
b. Spouse employment
c. Spouse changing schools
d. Obtaining certifications necessary for my spouse's employment
e. Availability of special medical and/or educational services for my spouse

******** Page Break *********

PERMANENT CHANGE OF STATION (PCS) MOVES

89. For your most recent PCS move, to what extent were the following a problem?

<table>
<thead>
<tr>
<th></th>
<th>Very large extent</th>
<th>Large extent</th>
<th>Moderate extent</th>
<th>Small extent</th>
<th>Not a problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. My child(ren) changing schools</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
</tr>
<tr>
<td>b. Availability of child care</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
</tr>
<tr>
<td>c. Availability of special medical and/or educational services for my child</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
<td>$\Box$</td>
</tr>
</tbody>
</table>

******** Page Break *********

DETAILS ON READINESS

90. Was any new equipment fielded to your unit in the past 24 months?

[ ] Yes
[ ] No

******** Page Break *********

DETAILS ON READINESS

91. How satisfied are you with the training you received for any new equipment fielded to your unit in the past 24 months?

[ ] Very satisfied
[ ] Satisfied
[ ] Neither satisfied nor dissatisfied
[ ] Dissatisfied
[ ] Very dissatisfied

******** Page Break *********

DETAILS ON READINESS
92. Was any of the new equipment intended to improve your organization's ability to operate in a joint environment?
   - Yes
   - No

******* Page Break **********

DETAILS ON READINESS

93. How satisfied are you with new equipment intended to improve your organization's ability to operate in a joint environment?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

******* Page Break **********

DETAILS ON READINESS

94. In the past 12 months, have you...

   a. Participated in unit training exercise (mission rehearsal)?
      - Yes
      - No
      - No, not available
   b. Participated in live fire training?
      - Yes
      - No
      - No, not available
   c. Participated in a joint (interservice, interagency, or intergovernmental) training exercise?
      - Yes
      - No
      - No, not available
   d. Received individual training or taken a military-related course (either skill/technical or professional development) via the Internet?
      - Yes
      - No
      - No, not available
   e. Participated in a virtual (human in a simulator) training event?
      - Yes
      - No
      - No, not available
   f. Participated in a constructive (computer-generated) training event?
      - Yes
      - No
      - No, not available

******* Page Break **********

DETAILS ON READINESS

95. How did participation in unit training in the last 12 months affect your personal readiness level?
   - Greatly increased
Increased
Neither increased nor decreased
Decreased
Greatly decreased

DETAILS ON READINESS

96. How did participation in unit training in the past 12 months affect your unit's readiness level?
   - Greatly increased
   - Increased
   - Neither increased nor decreased
   - Decreased
   - Greatly decreased

97. How satisfied were you with the unit training in which you participated in the last 12 months?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

98. How did participation in live fire training in the past 12 months affect your personal readiness level?
   - Greatly increased
   - Increased
   - Neither increased nor decreased
   - Decreased
   - Greatly decreased

99. How did participation in live fire training in the past 12 months affect your unit's readiness
level?
   □ Greatly increased
   □ Increased
   □ Neither increased nor decreased
   □ Decreased
   □ Greatly decreased

******* Page Break **********

DETAILS ON READINESS

100. How satisfied were you with the live fire training in which you participated in the past 12 months?
   □ Very satisfied
   □ Satisfied
   □ Neither satisfied nor dissatisfied
   □ Dissatisfied
   □ Very dissatisfied

******* Page Break **********

DETAILS ON READINESS

101. How did participation in joint training in the past 12 months affect your personal readiness level?
   □ Greatly increased
   □ Increased
   □ Neither increased nor decreased
   □ Decreased
   □ Greatly decreased

******* Page Break **********

DETAILS ON READINESS

102. How did participation in joint training in the past 12 months affect your unit's readiness level?
   □ Greatly increased
   □ Increased
   □ Neither increased nor decreased
   □ Decreased
   □ Greatly decreased

******* Page Break **********
DETAILS ON READINESS

103. How satisfied were you with the joint training in which you participated in the past 12 months?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

******* Page Break *******

DETAILS ON READINESS

104. How did taking a military-related course via the Internet in the past 12 months affect your personal readiness level?
   - Greatly increased
   - Increased
   - Neither increased nor decreased
   - Decreased
   - Greatly decreased

******* Page Break *******

DETAILS ON READINESS

105. How satisfied were you with the military-related course via the Internet in which you participated in the past 12 months?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

******* Page Break *******

DETAILS ON READINESS

106. How did participation in a virtual (human in a simulator) training event in the past 12 months affect your personal readiness level?
   - Greatly increased
   - Increased
   - Neither increased nor decreased
   - Decreased
   - Greatly decreased
DETAILS ON READINESS

107. How satisfied were you with the virtual (human in a simulator) training event in which you participated in the past 12 months?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

DETAILS ON READINESS

108. How did participation in a constructive (computer-generated) training event in the past 12 months affect your personal readiness?
   - Greatly increased
   - Increased
   - Neither increased nor decreased
   - Decreased
   - Greatly decreased

DETAILS ON READINESS

109. How satisfied were you with the constructive (computer-generated) training event in which you participated in the past 12 months?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

DETAILS ON READINESS

110. How many days per week do you participate in at least 30 minutes of physical training?
   - None
   - 1 or 2 days
   - 3 or 4 days
5 or more days

DETAILS ON READINESS

111. When did you last update your Record of Emergency Data?
   a. Month last updated:  
   b. Year last updated:  

DETAILS ON READINESS

112. When do you verify the accuracy of your Record of Emergency Data?
   a. Regularly; usually every 6 months  
   b. Before deployments  
   c. As part of PCS moves  
   d. Change in personal information  
      (e.g., address, phone)  
   e. Change in marital status and/or  
      other dependents  
   f. Other  

Please specify when you verify the accuracy of your Record of Emergency Data.

OFF-DUTY EDUCATION FOR SERVICE MEMBERS
113. How satisfied are you with your opportunities to pursue an education?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

114. While you were away during the past 12 months, did you use the Internet to participate in off-duty, voluntary education courses?
   - Yes
   - No

115. Would you have liked to use the Internet to participate in off-duty, voluntary education courses while you were away in the past 12 months?
   - Yes
   - No

116. While you were away during the past 12 months, how often did you use the Internet to participate in off-duty, voluntary education courses?
   - Daily
   - Three or four times a week
   - One or two times a week
   - Less than once a week
   - Less than once per month

117. How satisfied were you with the opportunities you were given to participate in off-duty, voluntary education coursework, using the Internet while you were away?
   - Very satisfied
   - Satisfied
Neither satisfied nor dissatisfied
• Dissatisfied
• Very dissatisfied

---

118. In your military career, have you ever...

<table>
<thead>
<tr>
<th>a. Taken any basic skills education courses?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Taken any off-duty vocational/technical courses (do not include MOS/AFSC/Rating instruction)?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>c. Taken any off-duty college-level courses?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>d. Taken any off-duty graduate school courses?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>e. Taken any off-duty civilian post-secondary distance learning courses?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

---

119. How did taking basic skills education courses affect your level of performance at your military job?

• Greatly increased
• Increased
• Neither increased nor decreased
• Decreased
• Greatly decreased

---

120. How did taking basic skills education courses affect your chances for promotion?

• Greatly increased
• Increased
• Neither increased nor decreased
121. How did taking off-duty vocational/technical courses affect your level of performance at your military job?
- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

122. How did taking off-duty vocational/technical courses affect your chances for promotion?
- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

123. How did taking off-duty college-level courses affect your level of performance at your military job?
- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

124. How did taking off-duty college-level courses affect your chances for promotion?
- Greatly increased
125. How did taking off-duty graduate school courses affect your level of performance at your military job?

- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

126. How did taking off-duty graduate school courses affect your chances for promotion?

- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

127. How did taking off-duty civilian post-secondary distance learning affect your level of performance at your military job?

- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased
128. How did taking off-duty civilian post-secondary distance learning affect your chances for promotion?
- Greatly increased
- Increased
- Neither increased nor decreased
- Decreased
- Greatly decreased

******** Page Break **********

OFF-DUTY EDUCATION FOR SERVICE MEMBERS

129. In the past 12 months, have you taken AFLOAT College Education courses?
- Yes
- No

******** Page Break **********

OFF-DUTY EDUCATION FOR SERVICE MEMBERS

130. In the past 12 months, how satisfied were you with the AFLOAT College Education courses?
- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfaction

******** Page Break **********

OFF-DUTY EDUCATION FOR SERVICE MEMBERS

131. In the past 12 months, have you taken EArmyU courses?
- Yes
- No

******** Page Break **********

OFF-DUTY EDUCATION FOR SERVICE MEMBERS

132. In the past 12 months, how satisfied were you with the EArmyU courses?
- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
133. In the past 12 months, have you taken Community College of the Air Force (CCAF) instructor certification courses?
   - Yes
   - No

134. In the past 12 months, how satisfied were you with the CCAF instructor certification courses?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied

135. In the past 12 months, have you taken full-time officer graduate education program courses?
   - Yes
   - No

136. In the past 12 months, how satisfied were you with the full-time officer graduate education program courses?
   - Very satisfied
   - Satisfied
   - Neither satisfied nor dissatisfied
   - Dissatisfied
   - Very dissatisfied
OFF-DUTY EDUCATION FOR SERVICE MEMBERS

137. In the past 12 months, have you taken courses using military tuition assistance?
   ☐ Yes
   ☐ No

******** Page Break **********

OFF-DUTY EDUCATION FOR SERVICE MEMBERS

138. How satisfied were you with the military tuition assistance provided for the courses in the past 12 months?
   ☐ Very satisfied
   ☐ Satisfied
   ☐ Neither satisfied nor dissatisfied
   ☐ Dissatisfied
   ☐ Very dissatisfied

******** Page Break **********

MYDODBENEFITS PORTAL

The myDoDbenefits portal allows DoD sponsors, eligible spouses, and family members over the age of 18 to verify the accuracy of their DEERS information, to update contact information to DEERS, view healthcare eligibility, manage TRICARE enrollments, and review Servicemembers' Group Life Insurance (SGLI) eligibility. This new online portal can be accessed at www.dmdc.osd.mil/mydodbenefits.

139. In the past 12 months, have you accessed the myDoDbenefits Web site (www.dmdc.osd.mil/mydodbenefits)?
   ☐ Yes
   ☐ No

******** Page Break **********

MYDODBENEFITS PORTAL

140. What is your primary reason for not using the myDoDbenefits Web site (www.dmdc.osd.mil/mydodbenefits) in the past 12 months?
   ☐ Not familiar with the myDoDbenefits Web site
   ☐ Did not need to update my personal information and/or did not need benefit information
   ☐ Concerned about confidentiality
   ☐ Prefer to talk on the telephone with a consultant
   ☐ MyDoDbenefits was hard to use
   ☐ Use another online Web site
MyDoDbenefits Portal

What was the other reason why you did not use the myDoDbenefits Web site (www.dmdc.osd.mil/mydodbenefits) in the past 12 months?

---

MyDoDbenefits Portal

141. How satisfied are you with the myDoDbenefits Web site (www.dmdc.osd.mil/mydodbenefits)?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

---

Permanent Change of Station (PCS) Moves

142. Assuming you were going to PCS in the next 12 months, how desirable would each of the following assignments be to you in terms of quality of life?

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Highly desirable</th>
<th>Desirable</th>
<th>Neither desirable nor undesirable</th>
<th>Undesirable</th>
<th>Highly undesirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Unaccompanied tour to Korea (24 months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Unaccompanied tour to Korea (12 months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Accompanied tour to Korea (36 months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Accompanied tour to Korea (24 months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
e. Unaccompanied tour to Guam (24 months)  
   Neither desirable nor Highly desirable

f. Accompanied tour to Guam (36 months)  
   Neither desirable nor Highly desirable

g. Unaccompanied tour to Japan (24 months)  
   Neither desirable nor Highly desirable

(Continued) Assuming you were going to PCS in the next 12 months, how desirable would each of the following assignments be to you in terms of quality of life?

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Neither desirable nor Highly desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>h. Accompanied tour to Japan (36 months)</td>
<td></td>
</tr>
<tr>
<td>i. Unaccompanied tour to Germany (24 months)</td>
<td></td>
</tr>
<tr>
<td>j. Accompanied tour to Germany (36 months)</td>
<td></td>
</tr>
<tr>
<td>k. Unaccompanied tour to Bahrain (12 months)</td>
<td></td>
</tr>
<tr>
<td>l. Accompanied tour to Bahrain (24 months)</td>
<td></td>
</tr>
<tr>
<td>m. Unaccompanied tour to Saudi Arabia (12 months)</td>
<td></td>
</tr>
<tr>
<td>n. Accompanied tour to Saudi Arabia (24 months)</td>
<td></td>
</tr>
</tbody>
</table>

(Continued) Assuming you were going to PCS in the next 12 months, how desirable would each of the following assignments be to you in terms of quality of life?

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Neither desirable nor Highly desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>o. Unaccompanied tour to Kuwait (12 months)</td>
<td></td>
</tr>
<tr>
<td>p. Accompanied tour to Kuwait (24 months)</td>
<td></td>
</tr>
<tr>
<td>q. Unaccompanied tour to Cuba (12 months)</td>
<td></td>
</tr>
<tr>
<td>r. Accompanied tour to Cuba (24 months)</td>
<td></td>
</tr>
<tr>
<td>s. Unaccompanied tour to Turkey (15 months)</td>
<td></td>
</tr>
<tr>
<td>t. Accompanied tour to Turkey (24 months)</td>
<td></td>
</tr>
</tbody>
</table>

********** Page Break **********
143. Which of the following best describes the financial condition of you (and your spouse)?

- Very comfortable and secure
- Able to make ends meet without much difficulty
- Occasionally have some difficulty making ends meet
- Tough to make ends meet but keeping your head above water
- In over your head

******** Page Break ********

144. Did you apply for the Defense Department's Family Subsistence Supplemental Allowance (FSSA) in the past 12 months?

- Yes
- No, I did not need the FSSA
- No, I am not aware of the FSSA program

******** Page Break ********

145. Did you receive the Defense Department's Family Subsistence Supplemental Allowance (FSSA) in the past 12 months?

- Yes
- No

******** Page Break ********

146. Which of the following would be your most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA)? Select one item from the list below.

Please select

******** Page Break ********

Please specify your most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA).
147. Which of the following would be your second most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA)? Select one item from the list below.

Please select

148. Which of the following would be your third most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA)? Select one item from the list below.

Please select

Please specify your second most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA).
Please specify your third most preferred method of receiving benefits-related information and services from the Department of Defense (DoD) and Veterans Affairs (VA).

******** Page Break ********

DOD/VA BENEFITS

149. How aware are you of the DoD/VA benefits, programs, and services that are available to Service members who have been wounded, become ill, or been injured as a result of a combat-related injury or illness?

- Very aware
- Aware
- Neither aware nor unaware
- Unaware
- Very unaware

******** Page Break ********

DOD/VA BENEFITS

150. How confident are you that, should you become wounded, ill, or injured, you and your family would be provided these DoD/VA benefits, programs, and services?

- Very confident
- Confident
- Neither confident nor unsure
- Unsure
- Very unsure

******** Page Break ********

THRIFT SAVINGS PLAN

151. Do you contribute to the Thrift Savings Plan (TSP), a retirement savings plan for Uniformed Service members and federal civilian employees?

- Yes
- No, but I know about TSP
- No, and I do not know about TSP
- Don't know
152. How have you learned about the Thrift Savings Plan (TSP)? Mark "Yes" or "No" for each item.

   a. Defense Finance & Accounting Service (DFAS) web site  Yes  No
   b. TSP Web site  Yes  No
   c. Briefing on my installation  Yes  No
   d. My chain of command  Yes  No
   e. Newspaper or newsletter article  Yes  No
   f. Friends, relatives, and/or coworkers  Yes  No

   (Continue) How have you learned about the Thrift Savings Plan (TSP)? Mark "Yes" or "No" for each item.

   g. Financial advisor  Yes  No
   h. Military OneSource  Yes  No
   i. "Military Saves" campaign  Yes  No
   j. Other Web site  Yes  No
   k. Other  Yes  No

Please specify the other Web site by which you have learned about the TSP.

Please specify the other means by which you have learned about the TSP.
THRIFT SAVINGS PLAN

153. The Thrift Savings Plan (TSP) will soon have a new option called a Roth TSP. Have you heard of the Roth TSP?
   Yes
   No

154. How have you learned about the Roth Thrift Savings Plan (TSP)? Mark "Yes" or "No" for each item.

   a. Defense Finance & Accounting Service (DFAS) web site
      Yes
      No
   b. TSP Web site
      Yes
      No
   c. Briefing on my installation
      Yes
      No
   d. My chain of command
      Yes
      No
   e. Newspaper or newsletter article
      Yes
      No
   f. Friends, relatives, and/or coworkers
      Yes
      No

   (Continued) How have you learned about the Roth Thrift Savings Plan (TSP)? Mark "Yes" or "No" for each item.

   g. Financial advisor
      Yes
      No
   h. Military OneSource
      Yes
      No
   i. "Military Saves" campaign
      Yes
      No
   j. Other Web site
      Yes
      No
   k. Other
      Yes
      No
Please specify the other Web site by which you have learned about the Roth TSP.

******** Page Break ********

THRIFT SAVINGS PLAN

Please specify the other means by which you have learned about the Roth TSP.

******** Page Break ********

THRIFT SAVINGS PLAN

155. Are you aware of the various investment choices available in the Thrift Savings Plan (TSP)?
   - Yes
   - No, and I do not want to know about the various TSP investment choices
   - No, but I would like to know about the various TSP investment choices

******** Page Break ********

THRIFT SAVINGS PLAN

156. During the last 12 months, have you felt unduly pressured by your chain of command to contribute to the Thrift Savings Plan (TSP)?
   - Yes
   - No

******** Page Break ********

THRIFT SAVINGS PLAN
157. What is your main reason for not contributing to the Thrift Savings Plan (TSP)? Select one item from the list below.

- I do not have the extra money in my pay to save in TSP
- I am not familiar enough with the TSP
- I was advised that I should not contribute to the TSP
- I am familiar with the TSP but have chosen to invest in other savings vehicles
- Other

******** Page Break ********

THRIFT SAVINGS PLAN

Please specify the other reason for not contributing to the TSP.

******** Page Break ********

MOTORCYCLES

158. Are you licensed to operate a motorcycle?

- Yes
- No

******** Page Break ********

MOTORCYCLES

159. Do you own a motorcycle?

- Yes
- No

******** Page Break ********

MOTORCYCLES

160. Is your motorcycle registered on a military installation?

- Yes
- No
161. How many motorcycle training courses have you ever taken?
   - Zero
   - One
   - Two
   - Three
   - Four or more

162. Are you and your spouse currently assigned to the same installation?
   - Yes
   - No

163. Are you and your spouse assigned within 50 miles of each other?
   - Yes
   - No

164. Are you and your spouse assigned within 100 miles of each other?
   - Yes
   - No

165. Do you and your spouse commute to and from the same residence for duty?
   - Yes
   - No
166. In the past two years, have you and your spouse lived apart for any of the following reasons?

- **Yes**
- **No**

  a. Assignment
  b. Deployment
  c. Temporary Duty
  d. Other reasons

167. What is the primary reason you and your spouse did not live together?

- Employment
- Medical reason
- Education
- Financial reason
- Strained relationship
- Other

168. In the past two years, how long did you live apart due to assignment(s)?

- Less than one month
- 1-6 months
- 7-12 months
- 13-18 months
- 19-24 months

169. In the past two years, how long did you live apart due to deployment(s)?

- Less than one month
- 1-6 months
- 7-12 months
- 13-18 months
ASSIGNMENT INFORMATION

170. In the past two years, how long did you live apart due to Temporary Duty?

- Less than one month
- 1-6 months
- 7-12 months
- 13-18 months
- 19-24 months

ASSIGNMENT INFORMATION

171. In the past two years, how long did you live apart due to other reasons?

- Less than one month
- 1-6 months
- 7-12 months
- 13-18 months
- 19-24 months

SOCIAL PRACTICES

172. Are the following statements true or false?

a. When you are in a social setting, it is your duty to stop a fellow Service member from doing something potentially harmful to themselves or others.

- True
- False
- Don’t know

b. If you tell a Sexual Assault Response Coordinator (SARC) or a Victim's Advocate (VA) that you were sexually assaulted, it is your decision whether the SARC/VA provides your name to your commander.

- True
- False
- Don’t know
TAKING THE SURVEY

173. Where did you take this survey? Mark "Yes" or "No" for each item.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Deployed location (on land)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. On ship at sea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. On board a ship in port</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. TDY or training location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Home/barracks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Work/office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Installation/ship library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Installation/ship recreation center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Non-military location (e.g., public library, Wi-Fi hotspot)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
j. Other location on installation

******** Page Break ********

**TAKING THE SURVEY**

Please specify where you took this survey.

******** Page Break ********

**TAKING THE SURVEY**

174. If you have comments or concerns that you were not able to express in answering this survey, please enter them in the space provided. Your comments will be viewed and considered as policy deliberations take place. Any comments you make on this questionnaire will be kept confidential, and no follow-up action will be taken in response to any specifics reported. Your feedback is useful and appreciated.

******** Page Break ********

175. If you have any additional comments or concerns, please feel free to enter them below.

******** Page Break ********
Bibliography


**Title and Subtitle**

Use of Demographics to Predict High Risk Individuals for Suicide

**Authors**

Bergin, David M., Major, USAF

**Abstract**

The Department of Defense is committed to the reduction in suicide events, which erodes good order and discipline, through the implementation of suicide prevention programs. This study examines the efforts in the military and civilian population to decrease the suicide rate and to determine what tools a commander can use based on the best evidence available.

The research uses data from the Center for Disease Control, the Department of Defense Suicide Event Reports, and the Defense Manpower Data Center to identify individuals who are at a higher risk for suicide. The study compares separate demographic groups based on perceived stress, an identified risk factor for suicide.

The research specifically targets the perceived stress levels between the ranks of military members as well as the perceived stress levels between the four branches of the U.S. Armed Forces. Results suggest mean stress levels differed by rank and service, indicating the benefits of screening for higher risk individuals. Of note is the difference between the increases in perceived mean stress level between each branch of service. Given the differences, the Department of Defense can benefit from further research evaluating the effectiveness of suicide prevention programs available from civilian and military sectors.