Research Brief

RAND NATIONAL DEFENSE RESEARCH INSTITUTE

Military Reenlistment and Deployment During the War on Terrorism

RAND RESEARCH AREAS
CHILDREN AND FAMILIES
EDUCATION AND THE ARTS
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INFRASTRUCTURE AND TRANSPORTATION
INTERNATIONAL AFFAIRS
LAW AND BUSINESS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
TERRORISM AND HOMELAND SECURITY

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of published, peer-reviewed documents.

Headquarters Campus
1776 Main Street
P.O. Box 2138
Santa Monica, California
90407-2138
TEL 310.393.0411
FAX 310.393.4818

© RAND 2009

www.rand.org

More than 1.5 million military personnel were deployed to Iraq and Afghanistan between 2002 and 2007, many of them more than once. Deployments often result in personal and work-related stress due to family separation, long working hours, and uncertain schedules. Upon returning home, many service members endure mental and emotional strain as they readapt to civilian and family life.

Despite these multiple pressures, reenlistment rates have remained stable. At the request of the Office of the Secretary of Defense, RAND researchers sought to determine (1) the effects of deployment on service members' decisions to reenlist and (2) whether such factors as bonus pay and number of months deployed affect reenlistment rates.

Drawing on recent literature, 10 Status of Forces Surveys of Active Duty Personnel administered between 2002 and 2007, and administrative data from personnel and pay files, RAND researchers developed statistical models of how deployed time and bonuses have influenced service members' willingness to stay in the military. The findings help address concerns about the long-term effects on reenlistment resulting from increased deployments in support of ongoing military operations in Iraq and Afghanistan.

Abstract

In response to concerns about the ability of the military services to sustain required force levels, a RAND study examined deployment trends and developed a theoretical model to assess the effects of personal and work stress, bonus pay, and cumulative number of months of deployment on intention to reenlist and actual reenlistment rates. A review of recent literature and an analysis of survey and administrative data show that the amount of deployment time had the largest impact on reenlistment, with negative effects for soldiers and marines with the highest cumulative months of deployment.

Long Deployments in a Hostile Environment Can Negatively Affect Reenlistment

Studies show that having some deployment experience typically has a positive effect on reenlistment.[1] While the high pace of military operations can increase personnel's stress levels, service members generally appreciate the opportunity to engage their skills and training in meaningful ways.

The frequency and duration of deployments have increased significantly during the global war on terrorism. Prior to September 11, 2001, fewer than 50,000 personnel were receiving hostile-fire pay each month; by 2007, this number had risen to 200,000. Reenlistment remained stable overall, but a detailed statistical examination of first- and second-term decisions made both before and during the global war on terrorism (i.e., 1996–2001 versus 2002–2007) reveals that the increase in deployment has affected the services differently.

Analysis of the survey data indicates that survey respondents who had a deployment involving hostile duty in the year prior to the survey experienced higher-than-usual work stress and higher-than-usual personal stress. They also reported a lower intention to stay in the military.

However, the lower intention to stay was not borne out by analysis of actual reenlistment. Using hostile deployment in the year before a reenlistment decision as an indicator, the study found that the Air Force and Navy experienced no real effect on first-term reenlistment numbers, and the same

[1] See, for example, James Hosek, Jennifer Kavanagh, and Laura Miller, *How Deployments Affect Service Members*, Santa Monica, Calif.: RAND Corporation, MG-432-RC, 2006, http://www.rand.org/pubs/monographs/MG432/.

was true of the Marine Corps until 2005–2007, when the effect of deployment was positive. Deployment had a positive but decreasing effect on Air Force, Navy, and Marine Corps second-term reenlistments through 2003, when the effect neared zero, but it then rebounded and was positive in 2004–2007.

The Army's trends were different, however. The effect of deployment on Army reenlistment had been positive before 2002 and during the first few years of the operations in Iraq and Afghanistan, but the effect decreased after 2002 and turned negative in 2006. The pattern was similar for second-term reenlistment, as shown in the figure. The estimate for 2006 shows that hostile deployment in the previous 12 months reduced reenlistment by eight percentage points—a large decrease.

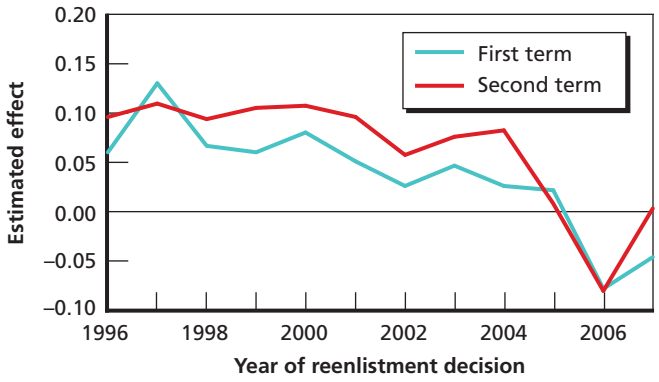
Further analysis of the Army experience revealed that the effect of deployment depended on the soldier's total months of deployment in the three years prior to reenlistment. Having between one and 11 total months of deployment had a positive effect on reenlistment, whereas having 12 or more months of deployment had a negative effect. By 2006, two-thirds of the soldiers at reenlistment had 12 or more total months of deployment. The combination of the negative effect of deployment on reenlistment for this group and the high number of soldiers who fell into this group produced an overall negative effect of deployment on reenlistment in 2006.

Like the Army, the Marine Corps experienced an increase in deployments during 2002–2007, and, in fact, marines had more episodes of deployment than did soldiers. Long periods of deployment also had a negative effect on marine reenlistment, but marine deployments were shorter than Army deployments. In contrast to the Army, the effect of deployment on marine reenlistment was positive and increasing after 2003.

Reenlistment Bonuses Can Offset Some Negative Aspects of Lengthy Deployments

One way in which the U.S. Department of Defense has sought to increase retention is through the expanded use and increased generosity of reenlistment bonuses. More than any other service, the Army increased the number of occupations eligible for a bonus as well as the dollar amount of bonuses, raising the number of reenlisting soldiers who received a bonus from 15 percent in 2003–2004 to nearly 80 percent in 2005–2007; in that same period, the average value of bonuses increased by more than 50 percent.

Trends in the Effect of Deployment on Reenlistment



NOTE: The estimated effect is the percentage-point difference in the probability of reenlisting between soldiers with any hostile deployment in the prior 12 months and comparable soldiers with no hostile deployment in that period.

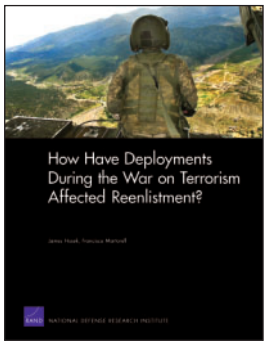
The Army's extended use of reenlistment bonuses helped to offset the decreasing and (by 2006) negative effect of deployments on reenlistment for both first- and second-term personnel.

Policy Implications

The study found that, compared to having no deployment, soldiers and marines with 12 or more months of deployment in the three years before reenlistment were less likely to reenlist, and those with less than 12 months of deployment were more likely to reenlist. This suggests that, to the extent that it is possible to do so while accomplishing a mission, the services should limit individual deployment to no more than 12 months in a period of 36 months.

Bonuses were valuable in sustaining retention in the face of heavy deployments. This indicates the value of bonuses as a compensation tool and underscores the importance of allowing rapid changes to bonus budgets from year to year, as well as flexibility to reprogram funds to bonus accounts within a fiscal year.

Deployments have an overall positive effect on reenlistment. However, concerns about the mental health of service members who are deployed to hostile locations, especially those deployed for long periods, suggests the importance of monitoring and studying their subsequent performance, behavior, and support needs. This includes the many service members with some exposure to combat who return with sub-threshold symptoms of post-traumatic stress disorder. ■



This research brief describes work done for the National Defense Research Institute documented in *How Have Deployments During the War on Terrorism Affected Reenlistment?* by James Hosek and Francisco Martorell, MG-873-OSD, 2009, 172 pp., $41, ISBN: 978-0-8330-4733-5 (available at http://www.rand.org/pubs/monographs/MG873). This research brief was written by Kate Giglio.
The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

RAND Offices
Santa Monica, CA • Washington, DC • Pittsburgh, PA • New Orleans, LA/Jackson, MS • Boston, MA • Doha, QA • Cambridge, UK • Brussels, BE

RB-9468-OSD (2009)

NATIONAL DEFENSE RESEARCH INSTITUTE

THE ARTS
CHILD POLICY
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND HOMELAND SECURITY
TRANSPORTATION AND INFRASTRUCTURE
WORKFORCE AND WORKPLACE

This PDF document was made available from www.rand.org as a public service of the RAND Corporation.

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

Support RAND

Browse Books & Publications

Make a charitable contribution

For More Information

Visit RAND at www.rand.org

Explore the RAND National Defense Research Institute

View document details

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND PDFs to a non-RAND Web site is prohibited. RAND PDFs are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see RAND Permissions.