



ARROYO CENTER

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

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

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

Skip all front matter: [Jump to Page 1](#) ▼

Support RAND

[Purchase this document](#)

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore the [RAND Arroyo Center](#)

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 electronic documents to a non-RAND website is prohibited. RAND electronic documents 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](#).

This product is part of the RAND Corporation monograph series. RAND monographs present major research findings that address the challenges facing the public and private sectors. All RAND monographs undergo rigorous peer review to ensure high standards for research quality and objectivity.

Effects of Soldiers' Deployment on Children's Academic Performance and Behavioral Health

Amy Richardson, Anita Chandra, Laurie T. Martin,
Claude Messan Setodji, Bryan W. Hallmark,
Nancy F. Campbell, Stacy Ann Hawkins, Patrick Grady

Prepared for the United States Army
Approved for public release; distribution unlimited



RAND

ARROYO CENTER

The research described in this report was sponsored by the United States Army under Contract No. W74V8H-06-C-0001.

Library of Congress Control Number: 2011923821

ISBN: 978-0-8330-5181-3

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.

© Copyright 2011 RAND Corporation

Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Copies may not be duplicated for commercial purposes. Unauthorized posting of RAND documents to a non-RAND Web site is prohibited. RAND documents are protected under copyright law. For information on reprint and linking permissions, please visit the RAND permissions page (<http://www.rand.org/publications/permissions.html>).

Published 2011 by the RAND Corporation

1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138

1200 South Hayes Street, Arlington, VA 22202-5050

4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665

RAND URL: <http://www.rand.org>

To order RAND documents or to obtain additional information, contact

Distribution Services: Telephone: (310) 451-7002;

Fax: (310) 451-6915; Email: order@rand.org

Summary

Long and frequent deployments, with short dwell times in between, have placed stresses on Army children and families already challenged by frequent moves and parental absences. These stresses may present in the form of social, emotional, or behavioral problems among children at home and at school. With a better understanding of the issues that children face when a parent or guardian deploys, services for military families and children can be more effectively targeted to address those needs.

RAND Arroyo Center was asked by the Army to conduct an analysis of the effects of soldiers' frequent and extended deployments on their children's academic performance as well as their emotional and behavioral outcomes in the school setting. This research included the following objectives:

- To assess academic effects and behavioral health challenges associated with parental deployment;
- To examine programs to support children's academic and school-related behavior during parental deployment and identify the gaps that currently exist;
- To examine the current systems of behavioral health support for these children; and
- Where indicated, make recommendations to support programs to ensure that children's academic and emotional needs are met.

There are three interrelated research components to this study. For all research elements, we examine school-age children of soldiers

in the Active force, Army Reserve, and Army National Guard, of all ranks.

1. **Statistical analyses of the correlation between parental deployment and student achievement test scores.** Our research analyzes empirical evidence of the association between parental deployment and dependent achievement test scores for public school students in North Carolina and Washington between 2002 and 2008.
2. **Interviews with school staff about the challenges these students face and suggestions for improvements in support.** We conducted in-person focus groups and interviews with school administrators, teachers, counselors, and other staff involved with children of deployed soldiers to understand the challenges faced by children experiencing parental deployment and by the schools serving these children. We also asked them to identify programs and services that are particularly beneficial or effective in promoting positive outcomes for these children, as well as gaps or areas for improvement that the Army may wish to address to better support children of deployed parents.
3. **Interviews with experts and key stakeholders about the barriers to psychological and behavioral health services for children of deployed soldiers.** We interviewed TRICARE leaders, clinical and pediatric behavioral health specialists, and other key stakeholders including Military Family Life Consultants (MFLCs) on the behavioral health challenges faced by children with deployed parents and their families; programs and services available to support these children; characteristics of these programs or services that are working effectively and might be improved; and gaps in support for these children.

There are a few important caveats to keep in mind. The analyses presented in Chapter Two are based on an examination of achievement test scores. There are many dimensions to academic success and learning not captured in this measure. Also, these tests are administered once a year and so are not sensitive to fluctuations in achieve-

ment throughout the course of the year. We were also not able to track children over long periods of time to understand whether the relationship we found between parental deployment and student achievement persists. The findings presented in Chapters Three and Four are based on the perspectives of the teachers, counselors, and school staff who agreed to speak with us; however, we obtained a diverse mix of staff by grade and role to help minimize selection bias. We have not sought to validate these perceptions through more objective measures, nor are we able to determine the extent to which challenges and barriers in services that they identify as stemming from parental deployment may also be ascribed to challenges in the civilian health care sector, schools more broadly, or children with behavioral health needs more broadly. These interviews were also conducted at two large installations and with staff working with Reserve and Guard children across the country. While general findings converged across locations, other communities may experience different challenges. Also, these interviews were conducted in 2008; perspectives and availability of services may have changed since then. We have tried to make note of these changes in services where relevant. We do not believe that any of these limitations affect the nature of the conclusions or the relevance of the recommendations.

Evidence of Academic Challenges That Children Face When Parents Deploy

We present evidence of the association between parental deployment and reading and math achievement for more than 44,000 students in North Carolina and Washington.

Children in North Carolina and Washington whose parents have deployed 19 months or more since 2001 have modestly lower (and statistically different) achievement scores compared to those who have experienced less or no parental deployment. This finding held across states and academic subjects. Grade school students in North Carolina whose parents have deployed 19 cumulative months or more have slightly lower achievement scores than those whose parents

have deployed less or not at all. In Washington these differences are more pronounced.

Among the children in our sample, the number of deployments is not associated with academic performance once we account for cumulative months of deployment. Stakeholders and researchers, as well as the media, often express concern over the number of deployments a soldier has seen. While the number of deployments and total months of deployment are clearly related, they are not the same. Having a parent who has deployed 19 months or more continues to be associated with lower test scores, but the number of deployments is not significant.

While longer parental cumulative deployments are associated with lower achievement scores among elementary and middle school students in North Carolina and Washington, this relationship is not statistically significant among high school students. When we examine variation by grade, we find that, in both states, cumulative deployment of 19 months or more is negatively related to achievement scores for elementary and middle school students, but not for high school students.

Otherwise, among the children in our sample, there are no consistent, statistically significant differences in academic performance by length of deployment, rank or component of the soldier, seniority of the soldier, gender of the deploying parent, or gender of the child. Further, the magnitude of the relationship between parental deployment and academic outcomes has not changed over time.

That we see differences in academic performance for children whose parents have deployed 19 or more cumulative months suggests that, rather than developing resiliency, children appear to struggle more with more cumulative months of deployment. These families may benefit from targeted support to help with the special circumstances that more months of cumulative deployment introduce. Elementary and middle school children may also be particularly vulnerable and warrant additional support if these results are confirmed in other studies.

Challenges That Children Face When Parents Deploy

Academic Challenges

Teachers and counselors we interviewed reported that while some children and families cope well with deployment, other families struggle with a range of deployment-related issues that may affect children's academic success. Teachers and counselors noted that some children of deployed parents struggle with homework completion. School staff shared that school attendance can also suffer during parental leave or if the family moves to be closer to grandparents or other support. School staff also indicated that, for some families, their children's academic performance does not seem to be a high priority, particularly in the context of deployments and related stressors. Staff believed parental deployments may also shift the family dynamic at home, which can have a negative effect on academic performance. According to the teachers and counselors we interviewed, students can also have new stress in their lives from additional household responsibilities to fill the void of the deployed parent, or the resident parent may be struggling with mental or emotional problems related to their partner's deployment. Those we interviewed also reported that academic outcomes may be affected if a child's behavioral health is compromised during multiple and extended deployments.

School staff we interviewed had little consistent information on which students are military, when students may be experiencing deployment, and how many students with military parents will be enrolling or leaving the school at any given time. School staff we interviewed, even those close to an installation, reported the need for better information on which of their students are military, and when they are experiencing deployment. Teachers and counselors told us that often the only way they find out is when a child's grades are dropping, and the parent or guardian informs the school that the mom or dad was deployed a month ago. Educators serving Reserve and National Guard families stated that they have an added difficulty in identifying students with a deployed parent, as children of Reserve Component soldiers tend to be a small minority in their schools.

Many of the school staff members we interviewed had little to no connection with military installations. For them, communication with existing Army programs was limited, including contact with the School Liaison Officer (SLO). They shared that when school staff had tried to reach the SLO or other military resources, they were often unable to obtain assistance for their students, or felt that the SLO office required too much information from them before they were willing to help. Educators working with children of Reserve Component soldiers believed they have an even weaker connection with the military. As Reserve Component families are often geographically dispersed, schools serving them may be located far from a military installation, and staff members at these schools may be unprepared to support children whose parents are deployed. Teachers and school staff members also expressed frustration that they did not have a mechanism to involve the Army as a last resort in the rare cases when the child's home life was significantly compromised. Some recalled that before the war, they were able to contact the commanding officer or Army Community Services (ACS), with positive results for the child.

Some of the challenges that teachers and counselors discussed are ones that stem from the high mobility of this population, which can be amplified during deployment. Students lose course credits when they transfer from one school district to another, a challenge voiced across school levels and locations. Students may spend time preparing for state tests or requirements, which can reduce the time spent meeting other core educational objectives. According to those we interviewed, accessing special education services for recently transferred children can also be a tremendous challenge. States vary in their criteria and processes needed to qualify for special education. As a result, with each move to a new state, students may need to be reevaluated for special education services.

Psychological and Behavioral Health Challenges

School staff believed that some parents appear to be struggling more than their children with deployments, which appeared to underlie many of the challenges that these children faced during these multiple and extended deployments. School staff also reported

that although deployments are becoming a normal part of children's lives, for many children, resiliency appears to be waning. Those we interviewed reported that in the first years of the war, there was more anxiety in classrooms about what was occurring, but now the response in the classroom is increasingly one of apathy. School staff also believed that schools are becoming the stable place or sanctuary for students when home life is chaotic or uncertain. Finally, school staff members felt they often did not have adequate assistance in helping students and parents access psychological and behavioral health services, and school leaders requested that more effort be placed on providing assistance for ways to obtain these services.

MFLCs may provide necessary student, family, and staff support in schools, but those we interviewed felt monitoring and evaluation of this program could be improved. The MFLC program is broadly designed to provide support and assistance to Active, National Guard and Reserve soldiers, military family members, and civilian personnel. MFLCs provide training information and support to school staff and nonmedical consultation to students and families. Although MFLCs are housed in schools, they are not considered school staff, and records are not kept on the students or their progress. While these policies help reduce fear of stigma from seeking behavioral health services, they also limit the ability to assess the benefits of the program and areas for improvement.

The stakeholders we interviewed felt the number of available providers with training in child and adolescent services is low. Ensuring that families have timely access to psychological and behavioral health services for children can be challenging, particularly when there is a national shortage of psychological and behavioral health providers. Further, the number of providers who have specific training in child and adolescent development is much smaller. According to stakeholders, in addition to the absolute shortage, there is wide geographic variation in provider availability. Stakeholders believed that limited acceptance of TRICARE among many civilian providers further reduced access, particularly for activated National Guard or Reserve families or families enrolled in TRICARE Reserve Select, who may be less connected to military health providers.

Stakeholders perceived that some providers do not have good grounding in military culture. While many of the providers who see TRICARE patients have current or prior military experience, newer providers to this community may not have as much understanding of the unique needs of military families. Behavioral health providers who primarily serve civilian populations may be relatively new to the issues and concerns of military families.

According to the school staff and stakeholders we interviewed, availability and coverage of certain behavioral health services, as well as prevention, screening, and early intervention, are not adequate and vary geographically. One critical area raised almost universally was the availability of residential treatment facilities. In addition, despite advances in creating individualized treatment plans, those we interviewed believed many of the services remain fragmented, making it difficult for children facing multiple needs to have a coordinated care plan. Other services that may not be sufficiently covered or available include in-home services and treatment for eating disorders. Interviewees also argued for more attention to behavioral health issues in schools and primary care settings to address the needs of the child before the issue becomes more severe and requires the services of child and adolescent psychiatrists specifically.

According to most providers, engagement of families in behavioral health services can be challenging. Those we interviewed found that parents may not perceive the child's need for services, stigma may deter them from seeking services for their children, and logistical challenges can reduce engagement in services over time.

Recommendations

Our analysis leads to several possible ways in which the Army can address the challenges faced by military children before, during, and after parental deployment. Most of these changes come with a financial cost, and in some cases these costs are likely to be considerable. Estimating the costs of each of these possibilities, however, is outside the scope of our analysis. Therefore, we offer these as recommendations for

the Army to *consider*, as our analysis suggests that there could be benefits from implementing them. Before the Army pursues any of these changes, we recommend a careful analysis of the costs, both fiscal and nonfiscal, associated with them. In addition, it is important to note that the research on which many recommendations are based was conducted in 2008 and 2009. We have made an effort to note some of the most relevant actions taken by the Army since then.

Recommendations to Address Academic and School-Based Needs

1. Address student academic challenges. Providing additional military resources to support students with their schoolwork, particularly during parental deployment or before and after extended absences from school due to parental leave, may help students who are struggling academically. For the rare cases when a child is struggling with deployment and the school is unable to engage the parent, we recommend that the Army develop a set of procedures for schools to seek ACS support to engage the unresponsive parents. We also recommend that the Army consider increasing transportation services for youth, particularly to facilitate their participation in after-school activities. Transportation can be a challenge for military children, who may therefore be unable to participate in after-school activities. While state and local dollars often fund support for those populations, installations may be able to offer additional transportation support. This support might include adding a bus stop that allows children to be dropped off closer to home or adding an extra run at the end of the day. Installations in some locations have also purchased buses and created new routes, which is likely a more expensive alternative but does not require obtaining city support.¹

2. Address academic challenges related to high mobility. While children of military parents have traditionally been highly mobile due to parental change of assignment or location, parental deployments have compounded this problem. A further challenge is that

¹ Since 2008, when these interviews were conducted, the Army contracted with Tutor.com to provide online academic tutoring for Army-connected youth, and added 199 buses to provide transportation to and from youth programs.

during block leave, children may have extended periods of mobility and absence from school. The Army should continue to advocate for full adoption and prompt, effective implementation of the Interstate Compact on Educational Opportunity for Military Children, which addresses state variation in the transfer of records, course sequencing, graduation requirements, and other issues.

3. Improve the flow of information to schools. Many of the concerns raised by school staff members point to the critical need to improve the flow of information to schools. Information flow may be improved by expanding efforts to educate school staff about the military, developing methods to inform schools about which children are military and the timing of parental deployments, providing school counselors a way to easily and effectively access information on military support and services available to families, striving for a more collaborative relationship between SLOs and schools, and revitalizing the “Adopt-A-School” program.²

Recommendations to Address Behavioral Health Needs

1. Continue to build behavioral health capacity by increasing the number of providers who are trained in child and adolescent behavioral health issues. Behavioral health service capacity could benefit from continued tuition support for students pursuing advanced degrees in behavioral health fields as well as from developing other support programs.

2. Expand provider understanding of military culture. Developing provider training on military culture and potential impacts of deployment, including the types of emotional issues children may experience, could also improve understanding of the specific needs of these children. Providers should also include pediatricians, school nurses, and behavioral health specialists.

3. Continue to expand models for improving access for hard-to-reach populations. Expanding models for improving access for hard-

² Since 2008, the Army has introduced military culture courses to educate faculty and school staff on the unique needs of military-connected youth, and added an additional 41 SLOs, for a total of 141 Garrison SLOs.

to-reach or remote youth populations, including telepsychiatry, might also improve access to services. Discussions with military behavioral health providers suggested that telepsychiatry was increasingly being used for those youth who were far from a military hospital or unable to access local behavioral health services. Telepsychiatry programs have been found effective in reducing childhood depression and show promise as a feasible and effective tool more broadly.

Reserve Component families are typically dispersed, making it difficult to connect with other Reserve and National Guard families. Promoting social networks among these families could foster relationships among these children, minimize their feelings of isolation, and strengthen the general sense of community. Social networks might be promoted by organizing frequent and regular regional or statewide social events and developing a social networking website specifically for youth of Reserve and National Guard soldiers.

4. Consider strategies for improving the availability of prevention, screening, and early identification, particularly in schools and other community settings. These strategies may include augmenting school behavioral health services for youth and families of deployed soldiers, which can help overcome limited access to services and stigma. Enhancing integration of behavioral health services with primary care, particularly in those clinics and hospitals serving military populations, would also help identify issues early on. While the integration of these services has become more common in nonmilitary settings, many of the providers we interviewed felt that the potential of these models had not been fully realized for their clients. In civilian sectors, pediatricians are increasingly identifying and treating psychological and behavioral health disorders, including depression, among their patients as well as exploring alternative technologies to facilitate screening.

5. Improve family engagement in behavioral health services. Recruitment and retention of families in child behavioral health services is difficult across populations, but for military families, issues of time, stigma, and other factors may make it challenging to stay in services. There is evidence that certain models of engagement intervention have shown improvements in “show rates” between the first and second patient visits.

6. Improve assistance to school staff in helping students and parents access services. Providing school counselors, nurses, and other staff with current information on military and community behavioral health services may assist in improving linkages to timely and appropriate care even though counselors cannot refer students themselves.

7. Improve evaluation of the MFLC program by integrating some outcomes-based measurement. Our interviews examined the benefits of structuring a program that was short-term and relied on the MFLC “outside” presence to overcome many of the stigma-related barriers associated with behavioral health services. However, according to the stakeholders we interviewed, the low level of monitoring and evaluation of services makes it exceedingly difficult to assess whether and how the program is having a positive impact on youth and families.

Recommendations for Future Research

1. Monitor the academic performance of children with parents who have deployed for long cumulative periods of time to understand the association between deployment and academic performance over time. To understand whether the association between cumulative parental deployment and academic performance of children persists, and whether it extends beyond these children, the Army should examine longitudinally the academic performance of children of soldiers. Our analysis included children from 2002 to 2008, and could only track students as long as they remained in that state. Studying the long-term relationship of parental deployment and academic performance, even as children move across states, would help the Army understand whether these associations persist.

2. Quantitatively assess effects of deployment associated with other academic performance measures. Given our qualitative findings noting that, at least for some children, there are academic challenges associated with parental deployment, it will be important to extend future analyses beyond annual test scores. There is a need to conduct analyses on additional metrics of academic success and school behavior that may be more sensitive to the rapid changes that deployment brings. Such analyses may also help to identify early indicators that could signal potential struggles with parental deployment. Such met-

rics should include academic engagement (e.g., attending to tasks in class, coming prepared to class), quarterly grade point average, school connectedness, disciplinary issues, extracurricular involvement, on-time high school or grade level completion, and postsecondary activities including college and/or military service entrance.

3. Examine whether deployment is having an impact on symptoms or behavioral health diagnoses. It is not clear whether any observed increase in symptomatology among children of Army soldiers translates into higher rates of diagnosable psychological and behavioral health disorders. The distinction between symptomatology and diagnoses is an important one, as the programmatic and policy solutions to address each scenario vary significantly.

4. Examine trends in met and unmet behavioral health needs using claims data. An important and, as of yet, untapped resource for understanding the effect of parental deployment would be an analysis of claims data that links behavioral health service utilization with characteristics of parental deployment. To date, there is relatively little analysis of behavioral health service use and whether services are available to address needs. While such an analysis would shed light on the impact of parental deployment on children's behavioral health issues, it would not capture unmet needs—those individuals who need services but are not seeing a provider. This is a critical issue, since in the general population 75 to 80 percent of children and youth in need of psychological and behavioral health services do not receive them. However, there is little empirical evidence quantifying the scope and extent of the problem among military children. In addition, further investigation is warranted into whether children are receiving recommended treatment protocols by appropriate personnel. No studies to date have examined whether children are seeing clinicians trained at a level that is appropriate for their current needs.

5. Identify a comparable civilian cohort to assess similarities and differences in behavioral health service use rates. Given the hypothesis that parental deployment is related to an increase in behavioral health problems, it is reasonable to want to directly compare rates of disorders between military and civilian children and adolescents. This comparison, however, is challenging because there is no centralized

database of health care claims and diagnoses in the civilian population. In addition, while epidemiologic research provides population-level estimates in the community, the estimates vary widely depending on the diagnostic method used, age of the study sample, and time frame. The criteria used to diagnose a child or adolescent with a behavioral health disorder may also vary widely among military providers, since the majority of reporting providers are social workers, psychologists, and pediatricians rather than child psychiatrists, who may use more standardized assessment tools. Direct comparisons between rates of behavioral health disorders among military and civilian populations will require a study that could assess similar claims data, with a comparable population, during the same time period. Data do not currently exist to facilitate such a direct comparison.

6. Examine the alignment of current Army and civilian programs with youth academic and behavioral health needs. Based on this and other studies on youth from military families, there has been a stronger call for evaluation of the current programs that serve this population. It also will be important to examine whether and to what extent the actual content of existing Army and civilian programs is aligned with the academic and behavioral needs identified in our analysis. This study was not intended as a comprehensive program gap analysis whereby we inventory the landscape of programs serving Army youth and assess the match of these services to needs, including target subgroups by location, component, age, or gender. However, a study that explores this content consistency is needed to highlight where curriculum and training fit the types of needs reported by school staff, including youth stress, parent engagement, and academic progress.