



Supporting
Military Families
Through Research
and Outreach

PUTTING RESEARCH TO WORK FOR MILITARY FAMILIES

Military Deployments and Children's Academic Achievement: Evidence from Department of Defense Education Activity Schools

Engel, R. C., Gallagher, L. B., & Lyle, D. S. (2010). *Economics of Education Review*, 29, 73-82.
http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VB9-4WV7814-1-1&_cdi=5921&_user=9555371&_pii=S0272775709000673&_origin=gateway&_coverDate=02%2F28%2F2010&_sk=999709998&_view=c&_wchp=dGLzVzz-zSkzS&_md5=781adf69701c267826d4c93e7e4421ad&_ie=/sdarticle.pdf



This article examines the effects of deployment on the academic achievement of Army children enrolled at Department of Defense Schools. Authors used standardized tests to measure children's academic achievement between 2002 and 2005.

Key Findings:

- Children with a parent deployed during the school year had slightly lower overall academic scores (0.42%), compared to children who did not have a parent deployed.
- The longer parents were deployed, the greater the impact on academic achievement (0.11% per month of deployment).
- After the deployed parent returned, academic performance slowly increased; four years after parents' return, children no longer had scores significantly different from those not experiencing parental deployments.

Implications for Programs:

- Schools serving children with deployed parents should provide additional academic tutoring during the school year to help buffer against decreases in academic performance.
- Programs serving children with a deployed parent could integrate a parental component that highlights strategies for addressing the negative effects of deployment on academic achievement.
- Curricula in the subject areas shown to be most affected by parental deployment should be targeted for enhanced student and academic services.

Implications for Policies:

- Schools should track students who have experienced parental deployment, in terms of their gains and losses in academic achievement over time.
- Schools should inform parents about additional tutoring services available in the community and/or negotiate reduced fees for identified students and families.
- Schools could develop additional curriculum or other services and automatically enroll students who fall below a minimum threshold on academic achievement to help meet the needs of those with deployed parents.

Avenues for Future Research:

- Additional time-series data should be used to track changes in academic success over time among children who experience multiple parental deployments.
- The findings of this study should be replicated with a different sample to determine if the effect sizes persist across samples.
- If sufficient data exists, a meta-analysis should be conducted to determine the average effect size for the relation between deployment and academic achievement.

Prepared by Military REACH Team.

For additional information, please visit <http://reachmilitaryfamilies.arizona.edu>



Developed in Collaboration with the Department of Defense's Office of Family Policy, the National Institute of Food and Agriculture, and the U.S. Department of Agriculture under Award No. 2009-08687-08933.

Background Information

Methodology:

- This study utilized a sample of over 56,000 school-aged children enrolled in DoD schools between 2002 and 2005. Regression analyses were used to determine the impact of parental deployment on academic achievement.
- This article focuses on Army children in DoD schools.

Participants:

- Children were in grades 3-11; 37% were White and 32% were Black.

Limitations:

- The researchers did not examine academic achievement prior to parent deployment; it is possible that the groups may have pre-existing differences that were not measured.
- Only children attending a DoDEA school with a parent who was an enlisted Service member in the Army (Active component) were included in the study. Results were not reported by age, gender, ethnicity, SES or branch, although age, gender, and ethnicity were used as control variables.
- Possible differences in other aspects of academic achievement may be missed because only one measure of academic achievement was used in the study.

Assessing Research that Works

| Research Design and Sample | | | | Quality Rating: | ★ ★ ★ |
|--|--|--|--|---|-------|
| | Excellent (★ ★ ★) | Appropriate (★ ★ ★) | Limited (★ ★ ★) | Questionable (★ ★ ★) | |
| The design of the study (e.g., research plan, sample, recruitment) used to address the research question was.... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Research Methods | | | | Quality Rating: | ★ ★ ★ |
| | Excellent (★ ★ ★) | Appropriate (★ ★ ★) | Limited (★ ★ ★) | Questionable (★ ★ ★) | |
| The research methods (e.g., measurement, analysis) used to answer the research question were... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Limitations | | | | Quality Rating: | ★ ★ ★ |
| | Excellent <i>Minor Limitations</i> (★ ★ ★) | Appropriate <i>Few Limitations</i> (★ ★ ★) | Limited <i>Several Limitations</i> (★ ★ ★) | Questionable <i>Many/Severe Limitations</i> (★ ★ ★) | |
| The limitations of this study are... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Implications | | | | Quality Rating: | ★ ★ ★ |
| | Excellent (★ ★ ★) | Appropriate (★ ★ ★) | Limited (★ ★ ★) | Questionable (★ ★ ★) | |
| The implications of this research to programs, policies and the field, stated by the authors, are... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| <input type="checkbox"/> Not applicable because authors do not discuss implications | | | | | |
| | | | | Overall Quality Rating | ★ ★ ★ |

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