

1. **Research Title:** Occupational Risk Factors for Injury and Disability Among U.S. Air Force Personnel
2. **Individual Sponsor:**
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3. **Academic Area/Field and Education Level:** Biostatistics (MS level)
4. **Objectives:** To utilize biostatistical methods to support epidemiological studies of workplace risk factors for injury and disability. Using SAS<sup>®</sup> statistical software, the student will combine demographic, military-specific and workplace exposure data along with outcomes such as injury and/or disability from large electronic data sources. Under the direction of a PhD biostatistician, univariate measures of association will be calculated using chi-square and t-tests. Multivariable regression methods such as logistic regression or Cox proportional hazards models may be used to calculate adjusted measures of association. Methods and results will be written to support submissions to peer-reviewed scientific literature.
5. **Description:** The proposed project will compliment ongoing research studies to identify causes of injury and disability among U.S. Air Force active duty and civilian government employees. The Biomechanics Branch (AFRL/HEPA) has invested heavily in personnel and resources to conduct robust epidemiological studies to assess adverse health effects associated with military service. The epidemiological team consists of expertise in epidemiology, biostatistics, public health, and data management. This team has significant contacts within academia, the Department of Defense, and the Department of Veterans Affairs to support a wide portfolio of research. Data resources available for use include demographic and military service data from the Defense Manpower Data Center and the U.S. Air Force Personnel Center, medical data from the Military Health System, biological specimens from the DoD Serum Repository, disability data and worker's compensation data from the Defense Manpower Data Center, and safety mishap information from the U.S. Air Force Ground Safety Center. All data maintained by HEPA is managed under a Privacy Act System of Records.
6. **Research Classification/Restrictions:** Data used in this research is considered FOUO and is restricted to U.S. citizens.
7. **Interest in Summer USAFA Cadet (Avg Cost for USAF Cadet for 33 days was \$4000):** Prefer someone in academia.
8. **Eligible Research Institutions:** Universities (DAGSI)