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# TECHNICAL REPORT

## Analysis of Financial Support to the Surviving Spouses and Children of Casualties in the Iraq and Afghanistan Wars

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Prepared for the Office of the Secretary of Defense

Approved for public release; distribution unlimited



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## Summary

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Military operations lasting more than a decade in Iraq and Afghanistan have focused national interest on meeting the needs of military families, especially families of service members who were injured or killed in combat. The President directed the Secretary of Defense, as part of the 11th Quadrennial Review of Military Compensation (QRMC), to review "compensation benefits available to wounded warriors, caregivers, and survivors of those fallen service members" (Obama, 2009). The research documented in this report was undertaken to assist the 11th QRMC in responding to that directive by providing the first comprehensive, quantitative assessment of the impact of combat deaths on household labor market outcomes. It also assesses the extent to which payments that surviving spouses and children receive from the Department of Defense (DoD), the Department of Veterans Affairs (VA), and the Social Security Administration (SSA) compensate for earnings losses attributable to combat deaths.

### Study Design

This study measures the impact of combat deaths on the financial well-being of surviving spouses and children of service members deployed to Iraq or Afghanistan between June 2003 and December 2006. Longitudinal, administrative data from military personnel records, casualty records, and annual Social Security earnings databases were linked together using Social Security numbers of service members and their spouses. This information was combined with data on payments made to surviving spouses and children from DoD, the VA, and SSA to estimate the impact of combat death on household income and earnings and to assess the degree to which cash benefits from the federal government compensate surviving household members for their financial losses.

Among the 347,078 married service members who deployed between 2003 and 2006, the casualty records show that 1,184 (0.3 percent) were killed in combat. We compared the labor market earnings of households experiencing a combat death in the years following deployment with those of deployed but uninjured service member households. Because the risk of combat death is likely to be correlated with characteristics of service members that could themselves affect household labor market outcomes (e.g., pay grade, military occupation, risk-taking behavior), we controlled for a rich array of individual-level characteristics, including labor market outcomes for both service members and spouses prior to deployment. This approach includes controls for potentially unobserved factors that are unique to specific households and fixed over time and increases the likelihood that the results capture the causal effect of combat death on household earnings. Nevertheless, these controls are imperfect, and the patterns doc-

umented here could in theory also partially reflect other uncontrolled characteristics of households, which would undermine such a causal interpretation.

This research does not address the difficult normative question of whether the replacement rates reported here are appropriate. The appropriate level of benefits depends in large part on the overarching goals and constraints associated with a particular compensation system. Heaton et al. (2012), for example, argue that the structure and amount of compensation provided to families of combat casualties should be adjusted to reflect policymaker preferences regarding the desirability of fulfilling goals such as compensating for economic loss, ensuring a stable inflow of new personnel into the military, and appropriately recognizing the sacrifice of those who died serving the country. While normative questions surrounding benefit adequacy are important, resolving them lies beyond the scope of the present inquiry.

### **Labor Market Earnings Effects**

We find that household labor market earnings decline substantially in the years following the combat death of a member of the household. The estimated drop in annual household earnings over the first four years following a fatality ranges from \$63,000 to \$68,000 for members of the active components (ACs) and from \$59,000 to \$65,000 for members of the reserve components (RCs). There appears to be little change in the magnitude of the effect over these years. The main driver of the earnings drop is, naturally, the loss of the service member's own earnings. However, declines in spousal earnings are also significant over the first four years, ranging from \$4,600 to \$5,500 for AC spouses and from \$7,700 to \$8,800 for RC spouses.

### **Estimated Replacement Rates**

Surviving spouses and children can potentially receive recurring monthly benefits from a number of federal sources, including DoD, the VA, and SSA. In addition, family members are eligible to receive one-time payments from the Servicemembers' Group Life Insurance (SGLI) program, the DoD Death Gratuity, and Combat-Zone Tax Forgiveness. Many of these survivor payments are tax-free, which we account for in our analysis.

On average, recurring benefits from these sources offset more than two-thirds of the estimated losses in household labor market earnings attributable to combat death over the first four years following the fatality. Excluding lump-sum payments, the estimated effect of a combat death on total household income—the sum of service member and spousal labor market earnings plus recurring survivor compensation—in the fourth year following deployment is negative for both RC and AC members but substantially smaller than the estimated effect on earnings. The post-compensation income loss in year 4 for AC members averages about \$20,000, or about 30 percent of the total earnings loss in that year. For RC members, the post-compensation income loss is \$14,000, about 22 percent of the total drop in household earnings.

The household-income replacement rate in year 4—defined as the ratio between actual income (including all recurring forms of federal survivor benefits—and expected income had the service member returned from deployment uninjured is 78 percent for the median surviving-spouse household of an AC member and 88 percent for that of an RC member.

Taking into account the value of the lump-sum payments (mainly from the Death Gratuity and SGLI) spread over a 20-year horizon increases the average replacement rates to 116 percent and 122 percent for the families of AC and RC members, respectively. Within each component, the household-income replacement rates are lowest for service members who had no dependent children at the time of their deaths and are highest for households with more than two dependent children.

The household-income replacement rate includes the value of the surviving spouse's earnings (and earnings loss), as well as the predicted income growth the service member would have experienced had he or she not been injured. An alternative measure of the generosity of survivor benefits is the own-income replacement rate, i.e., the ratio of survivor benefits to the service member's own pre-deployment income. The median individual replacement rates in our sample are 68 percent and 72 percent for AC and RC members, respectively, when we consider only recurring benefits, and 170 percent and 184 percent when we include lump-sum payments amortized over 20 years. The comparison relative to the service member's own pre-deployment income is similar to the basis for compensation used in other recurring-survivor-benefit programs, where benefits are adjusted for inflation but not for predicted income growth, and where spousal income is ignored. For example, family members of DoD civilian employees who die while performing their official duties are compensated based on the provisions of the Federal Employee Compensation Act, using a compensation formula based on prior earnings. The key finding of substantial income replacement (more than two-thirds) from recurring payments and complete income replacement from recurring plus lump-sum payments is consistent across the different replacement-rate measures.