Retention of Enlisted Maintenance, Logistics, and Munitions Personnel

Analysis and Results

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This project was intended to help policymakers understand the potential impacts of individual characteristics, economic and geographic factors, and the new Blended Retirement System (BRS) on retention. It focused on enlisted retention, primarily in aircraft maintenance career fields, with some attention to other logistics career fields as resources permitted.

APPROACH

Relying primarily on data available in U.S. Air Force personnel files (for logistic regressions) and the Defense Manpower Data Center's Work Experience File (for Dynamic Retention Model [DRM] estimates) but also on economic data derived from other sources, two types of analyses were conducted. First, logistic regression was used to determine how strongly a variety of individual and environmental characteristics are associated with decisions to reenlist, extend an enlistment, or separate from the Air Force. Second, RAND's DRM was used to estimate how the new BRS will affect maintenance, munitions, and logistics career fields when those in the new system reach retention decision points.

CONCLUSIONS

Viewed over a period of 15 years, from 2005 to 2019, retention has been improving in the maintenance, munitions, and logistics career fields. For much of that span, the improvement can be attributed to changes in the individual characteristics and environmental variables included in our analysis, with some unusual peaks and valleys related to extraordinary national economic shifts or to concentrated drawdowns in Air Force force size.

Key observations include the following:

- Higher grade, being selected for promotion, and higher-quality performance are positively related to retention.
- Major command and geographic region of assignment can influence retention decisions.
- Retention is not significantly related to aptitude, as measured by the Armed Forces Qualification Test.
- Retention is associated with higher performance, as indicated by a series of direct and indirect measures of performance quality.

- Marriage and family formation are positively related to retention.
- Stress, in the form of lower Air Force Specialty Code (AFSC) manning or too heavy a deployment load, tends to lower retention. But some deployment experience, up to a point, is good for retention.
- Higher national unemployment rates are associated with higher retention.
- The BRS, with appropriate application of the midcareer bonus, is not expected to adversely affect retention.

RECOMMENDATIONS

Much of what influences retention is beyond the Air Force's control. The Air Force cannot easily change the location of its bases, and it has no control over national economic conditions. However, we did identify areas of emphasis that could be exploited, some requiring additional research prior to implementation:

- Focus on accession of individuals on initial four-year enlistments rather than those on six-year enlistments, as the former seem to retain better. More research is needed to better inform this difference and possibly exploit it.
- Continue to use selective reenlistment bonuses to increase retention.
- Since performance and retention are positively correlated, emphasize performance-related factors, such as training, quality of leadership, and organizational climate.
- Emphasize family support services and family-friendly management practices because marriage and family formation are positively related to retention.
- Minimize stressors such as AFSC undermanning or maldistribution of deployment demands.

An underlying issue requiring more research is a general absence of insight into the ideal level of retention in the maintenance, munitions, and logistics career fields, or in the Air Force enlisted force more generally. A more experienced force, obtained through higher retention, is both more productive and more expensive. The cost/benefit trade-offs are not well understood.