

Building the Best Offensive and Defensive Cyber Workforce

Volume II, Attracting and Retaining Enlisted and Civilian Personnel

CHAITRA M. HARDISON, LESLIE ADRIENNE PAYNE, JULIA WHITAKER, ANTHONY LAWRENCE, IVICA PAVISIC

To access the full report, visit www.rand.org/t/RRA1056-2



ISSUE

Cyberwarfare is considered a core element of the U.S. Air Force (USAF) mission. People with cybersecurity skill sets are in great demand, not only in the military but also in the private sector. As a result, USAF is concerned that recruiting and retaining talented cyber personnel might be increasingly difficult. Thus, USAF expressed an interest in better understanding the perspectives of members of its cyber workforce and the insights that could be gained from their views. USAF turned to RAND Project AIR FORCE for assistance in gathering these insights. Prior RAND work explored these issues among officers; this report focuses on enlisted and civilian members of the cyber workforce.



APPROACH

We conducted 30 focus groups and interviews to collect the viewpoints of cyber enlisted and civilian personnel in offensive and defensive cyber operations—specifically the cyber warfare operations (1B4) specialty, digital network analyst (1N4A) specialty, and civilians operating as part of the cyber mission force (CMF). We also reviewed USAF's archival personnel data files to examine retention profiles for the civilian and enlisted cyber workforce.

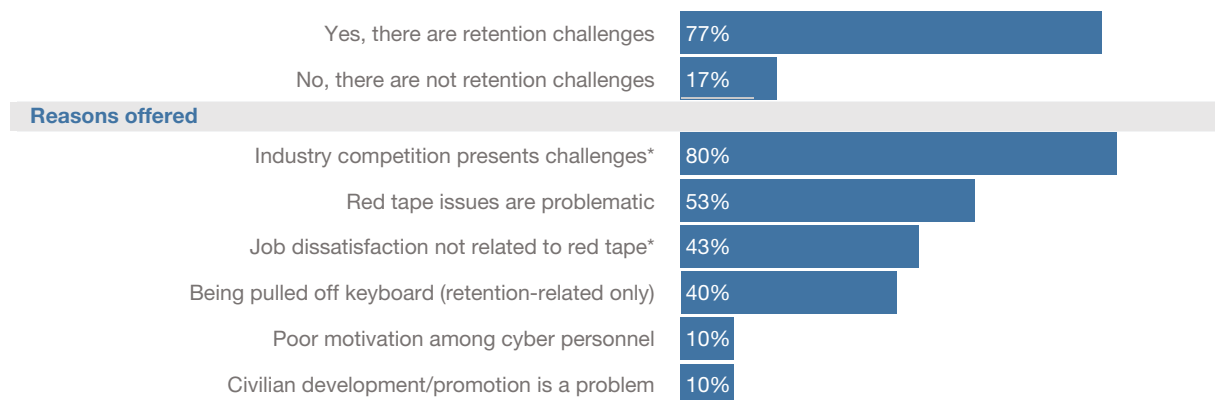


CONCLUSIONS

- Participants had mixed views on whether recruiting was a concern. In 43 percent of focus groups, at least one participant said that there were recruiting challenges; however, in 63 percent of focus groups, at least one participant said that there were not recruiting challenges.
 - Questionnaire respondents responded neutrally on the question of satisfaction with the level of cyber talent being recruited.
- In contrast, participants in 77 percent of focus groups said that retention is a concern (see the figure).
 - Participants explained that they were less concerned with retention overall. Instead, they were concerned that the best-quality personnel were the ones leaving.
- Consistent with this finding, the personnel data that we reviewed suggest that cyber retention overall is not a problem. However, our analysis of Armed Forces Qualification Test scores lends support to participants' concerns that the best people might be leaving at higher rates than other cyber personnel.

continued

PERCENTAGE OF FOCUS GROUPS THAT MENTIONED SPECIFIC TOPICS ABOUT RETENTION



NOTE: Some focus groups had only one participant, meaning that they were essentially interviews. These interviews are included in the focus group results shown in this figure. Sometimes, a topic was raised by one person, and an opposite view was expressed by someone in the same focus group. In those cases, the same discussion would be counted in both the topic frequency and the opposite sentiment frequency. For some topics, no opposite sentiment was expressed in the workforce discussions. When an opposite sentiment was expressed in more than 7 percent of the workforce discussions, it was added to the figure. Where an opposite sentiment was expressed in 3 to 7 percent of the workforce focus groups (i.e., one or two groups), the category is marked with an asterisk. Being pulled off keyboard was also mentioned in our Volume I results as a potential training issue (e.g., not being on keyboard results in loss of skill currency). Being pulled off keyboard was also discussed in the context of retention, and those comments were coded separately.



RECOMMENDATIONS

- **Track and monitor retention, especially of top performers.** Currently, there is no systematic way to identify or track top performers, but USAF should begin collecting such data to track retention.
- **Develop materials to help get recruiters and the public well versed in cyber career fields.** Develop materials that can be used to better explain the job to a lay audience and the overall criticality of the cyber mission to USAF. The materials should provide a realistic preview of the job, including the skill, ability, and interest requirements.
- **Truncate the onboarding process for civilians.** Revisit the merits of the 180-day processing period for applicants with prior USAF service with cyber backgrounds who wish to come back as civilian cyber specialists. Explore whether financial compensation could be given to viable applicants during the clearance process.
- **Create senior technical (nonmanagement) roles.** Some cyber personnel want the ability to “stay on keyboard” indefinitely to maintain their technical skills and do the work that they enjoy instead of being forced to assume supervisory roles via promotion. A warrant officer track would address this; other technical track solutions could also be considered.
- **Take steps to address bureaucracy and other major sources of dissatisfaction.** USAF needs to address these frustrating obstacles to counter the draw of the private sector and ensure that these obstacles do not continue as the enterprise normalizes.
- **Improve identification and tracking of civilians in the CMF.** The Air Force Personnel Center currently does not have a clear way of identifying civilians in the CMF. This is a necessary first step to monitor retention of these individuals.



PROJECT AIR FORCE

RAND Project AIR FORCE (PAF), a division of the RAND Corporation, is the Department of the Air Force's (DAF's) federally funded research and development center for studies and analyses, supporting both the United States Air Force and the United States Space Force. PAF provides DAF with independent analyses of policy alternatives affecting the development, employment, combat readiness, and support of current and future air, space, and cyber forces. For more information, visit PAF's website at www.rand.org/paf.