Highlights of GAO-21-94, a report to congressional committees

Why GAO Did This Study

FAA's aviation safety workforce is vital to ensuring that the agency fulfills its mission to provide a safe and efficient national airspace system. With the challenges of a large number of potential retirements on the horizon and the introduction of new aviation technologies, FAA must ensure that safety inspectors and engineers possess skills needed for effective oversight as well as for a variety of highly technical skills in aerospace technology.

The FAA Reauthorization Act of 2018 included a provision for GAO to report on the workforce and training needs of AVS. This report addresses, among other things, the extent to which AVS (1) assesses competency gaps in its inspector and engineer workforces and (2) ensures its training program provides these workforces with needed competencies.

GAO analyzed AVS's workforce planning and training documentation, and interviewed officials from AVS and representatives from aviation industry associations and FAA labor groups.

What GAO Recommends

GAO is making two recommendations to FAA's Office of Aviation Safety to assess, on a recurring basis: (1) organization-wide competency gaps for its inspector and engineer workforces and (2) training curricula for these workforces. FAA concurred with the recommendations.

View GAO-21-94. For more information, contact Heather Krause at (202) 512-2834 or Krauseh@gao.gov.

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AVIATION SAFETY

FAA's Office of Aviation Safety Should Take Additional Actions to Ensure Its Workforce Has Needed Skills

What GAO Found

The Federal Aviation Administration's (FAA) Office of Aviation Safety (AVS) has started to identify the critical competencies (i.e., skills, knowledge, abilities, and behaviors) that its inspector and engineer workforces need to oversee the safety of the aviation industry, as described in the figure below; but it does not assess organization-wide competency gaps in these workforces on a recurring basis. AVS identified, for example, data analytics, systems thinking, and risk-based decision-making as competencies engineers need to perform safety oversight.

Responsibilities of Inspectors and Engineers for Overseeing Safety of Aviation Industry Segments

Aviation safety inspectors evaluate aircraft, airmen qualifications, and aviation operations



General aviation and commercial operations such as private aircraft, drones, and helicopters

Aviation safety engineers review aviation product designs and manufacturing

Design firms

Manufacturers





Source: GAO analysis of Federal Aviation Administration information. I GAO-21-94

AVS officials told GAO that managers in offices located across the country individually assess whether their respective employees have the skills needed to carry out their responsibilities. This approach does not provide AVS an organization-wide view of competency gaps. Performing recurring, organization-wide competency gap assessments is consistent with GAO's strategic workforce planning principles and federal *Standards for Internal Control*. Without information on the extent to which its inspectors and engineers possess critical competencies, AVS is limited in its ability to implement appropriate strategies for addressing organization-wide gaps in critical skills such as data analytics.

AVS takes steps to train inspectors and engineers on skills to carry out their safety work but has not assessed the office's training curricula on a recurring basis. Training for inspectors and engineers includes extensive introductory curricula covering general and job-specialty courses, recurrent training, and on-the-job training. AVS has policies for routinely evaluating individual training courses and incorporating improvements. However, it does not assess on a recurring basis whether the training curricula as a whole adequately provide employees with needed competencies. Recurring comprehensive reviews are consistent with key training guidance. Without recurring assessments of the curricula, AVS does not have the ability to identify whether there are gaps within the training, such as on oversight activities related to new technologies, or whether critical competencies necessary for carrying out its safety mission are being sufficiently emphasized.