Why GAO Did This Study

The Federal Aviation Administration (FAA) predicts that air traffic in the United States will increase 20 percent by 2024. If not mitigated, the noise associated with these flights could significantly diminish the quality of life for communities surrounding airports and constrain an airport’s ability to expand. Over the last 30 years, Congress has provided billions of dollars in grants under the Airport Improvement Program to airports to reduce and mitigate significant noise exposure. FAA’s overall strategic noise goal is to reduce the population exposed to significant noise to fewer than 300,000 people nationwide.

At your request, GAO (1) described how airport noise exposure has changed, (2) evaluated noise grant results, and (3) assessed potential future demand for these grants. GAO analyzed FAA data on noise grants, planned projects, and population exposure and reviewed relevant literature. GAO also conducted interviews with relevant airport and FAA officials and industry representatives, as well as visited seven airports that have used noise grants, judgmentally selected based on size, location, and other factors.

What GAO Found

The number of people in the United States exposed to significant airport noise has steadily declined from roughly 7 million people in 1975 to about 309,000 today. This change reflects large decreases in the size of areas that are exposed to significant airport noise and is primarily due to improvements in aircraft technology.

Since 1982, FAA has provided $5.8 billion in Airport Improvement Program noise grants to 481 airports for residential and public building noise insulation and land acquisition, among other project types. The majority of grants went to airports that voluntarily undertook Noise Compatibility Programs (NCP). While these funds benefitted thousands of people, GAO identified two areas of concern regarding FAA’s enforcement of project eligibility criteria that creates a risk that some undetermined amount of grant funds may have gone to projects that do not meet FAA’s project eligibility criteria. First, FAA does not always require airports to maintain updated and accurate noise exposure maps to define eligible project areas. For example, half of the noise exposure maps—which show the areas around an airport that are exposed to significant airport noise and are a key element in determining project eligibility—are from the 1990s or earlier. For an airport to receive a noise grant, program criteria generally require that such maps are updated every 5 years, but nine airports received $87.6 million in grants in fiscal years 2010 to 2011 based on maps that predate 2000. Second, FAA has inconsistently implemented requirements that limit residential noise insulation projects to homes with interior noise levels above an established threshold. In the absence of FAA enforcement, airports have little incentive to update maps and limit residential treatment because doing so might eliminate planned projects expected by the public. Concurrent to GAO’s review, FAA issued new guidance that should substantially address this risk if effectively implemented. Further, the results of noise grants are not linked to FAA’s strategic noise reduction goal and measurement approach. For example, the goal does not include the results of noise insulation of homes and schools. As a result, there is insufficient performance information about the effects of noise grants and the extent to which noise exposure remains a constraint on airport growth.

There has been an increase in the estimated cost of planned noise mitigation projects in FAA’s 2011 National Plan of Integrated Airport Systems report to Congress, but a number of indicators point to a future decline in demand for grants for noise projects. Specifically, the 2011 report, compared to prior reports, includes a smaller portion of projects in the most significantly noise-impacted areas. Further, since the 2001 report, the number of airports planning eligible noise projects is down 16 percent, with about half the number of planned projects. Additionally, fewer airports are developing new noise compatibility programs and many of the 234 airports with such programs may be completed. For example, 102 of 137 airports with an NCP more than 10 years old received no noise grants since 2007, an indication that those airports may have completed all eligible projects in those plans. Finally, about a third of the people living in significantly noise-impacted areas reside near airports that have not completed, and may never complete, an NCP, a necessary step before an airport can use noise grants for residential noise insulation. This population, therefore, may never be reached by FAA’s grant program.

What GAO Recommends

GAO recommends that the Department of Transportation align its strategic goal for noise reduction with the results of the noise grant program and establish corresponding performance measures. The department provided technical comments and agreed to consider the recommendations.