
Airport Noise

Assessing a Program's Ongoing Relevance & Linking Agency Goals and Measures with Program Performance

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Session Agenda

Background

- Introduction to airport noise
- Airport Improvement Program (AIP) Noise Grants
- GAO's report questions

Lessons Learned from Engagement

- Assessing a program's ongoing relevance
- Linking agency goals and measures with program results

Introduction to Airport Noise

- Airplane noise is particularly loud near airports due to take-offs and landings.
- Noise is a quality of life issue—it can interfere with sleep, speech, and student learning, for example.
- Noise can also be the basis for complaints and environmental review, potentially constraining airport growth.
- However, **technology** has made airplanes much quieter.
- Consequently, fewer people are now exposed to “significant airport noise,” despite increases in air traffic.

Airport Improvement Program Noise Grants

Since 1982, FAA has provided \$5.8 billion in grants to airports to mitigate the effects of noise.

- Grants are funded largely with passenger ticket taxes and require a local match
- \$200-\$300 million per year in recent years

Most grants fund projects that are part of voluntary Noise Compatibility Programs sponsored by airport authorities.

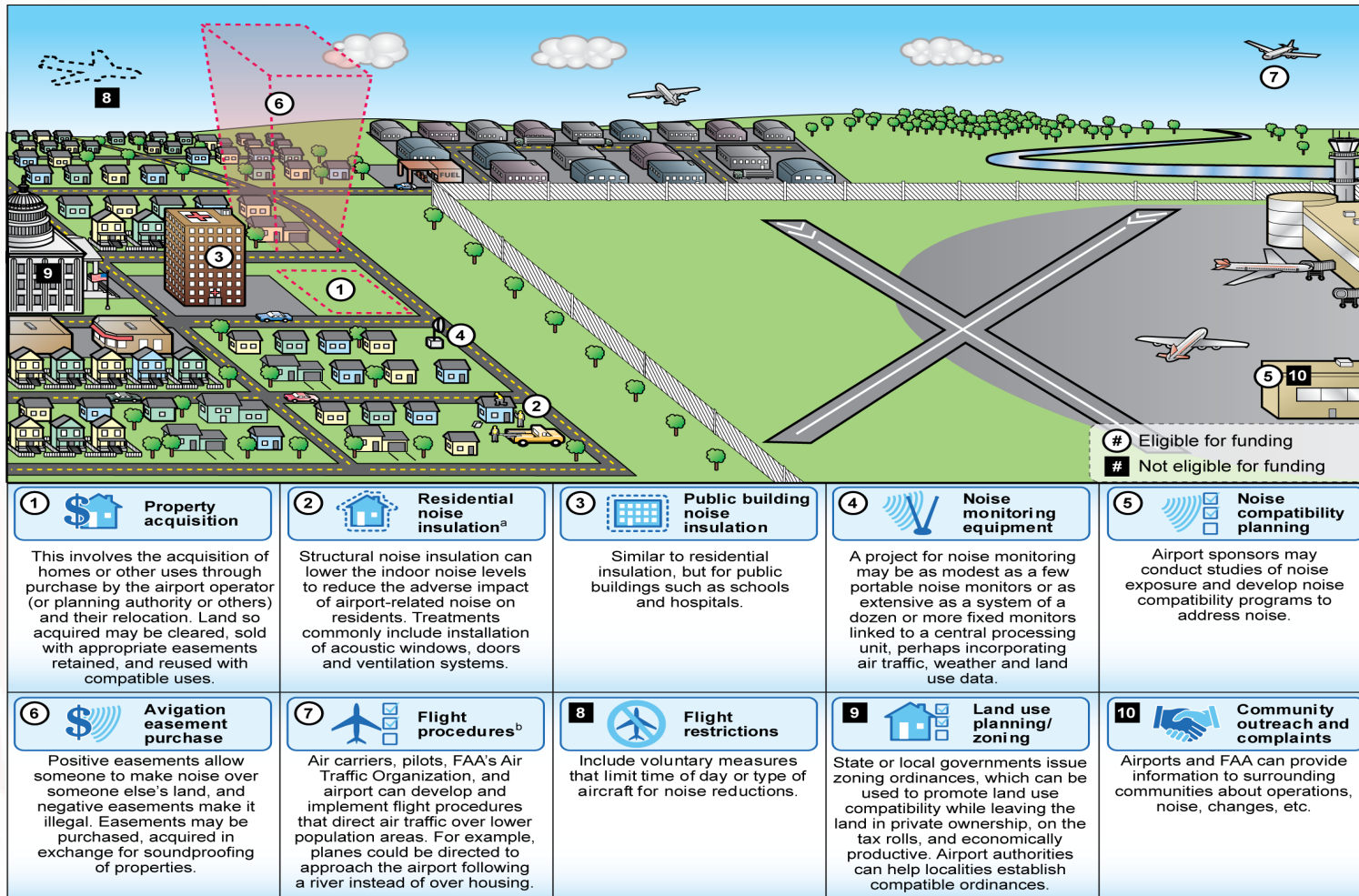
Grant eligibility criteria have remained largely unchanged since 1980s.

Congress needs to know if the program is effective. FAA's authorization includes a funding set-aside for noise grants.

GAO's Report Questions

1. How has overall airport noise exposure changed since AIP noise grants were first funded?
2. How have AIP noise grants been used by airports to mitigate noise and what have these grants achieved?
3. What is the likely future demand for AIP noise grants?

Types of Projects to Mitigate Noise

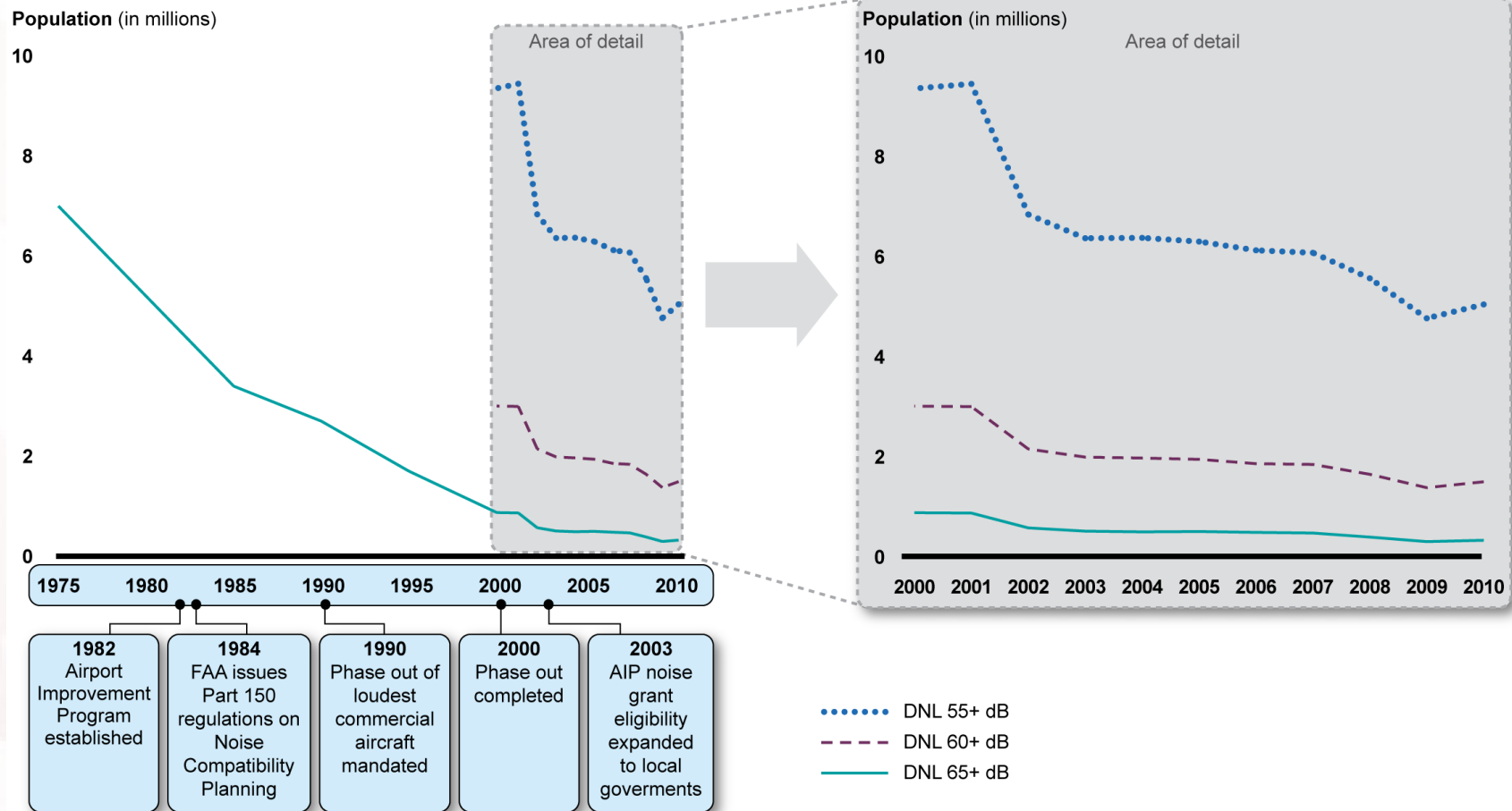


Source: GAO analysis.

Assessing a Program's Ongoing Relevance

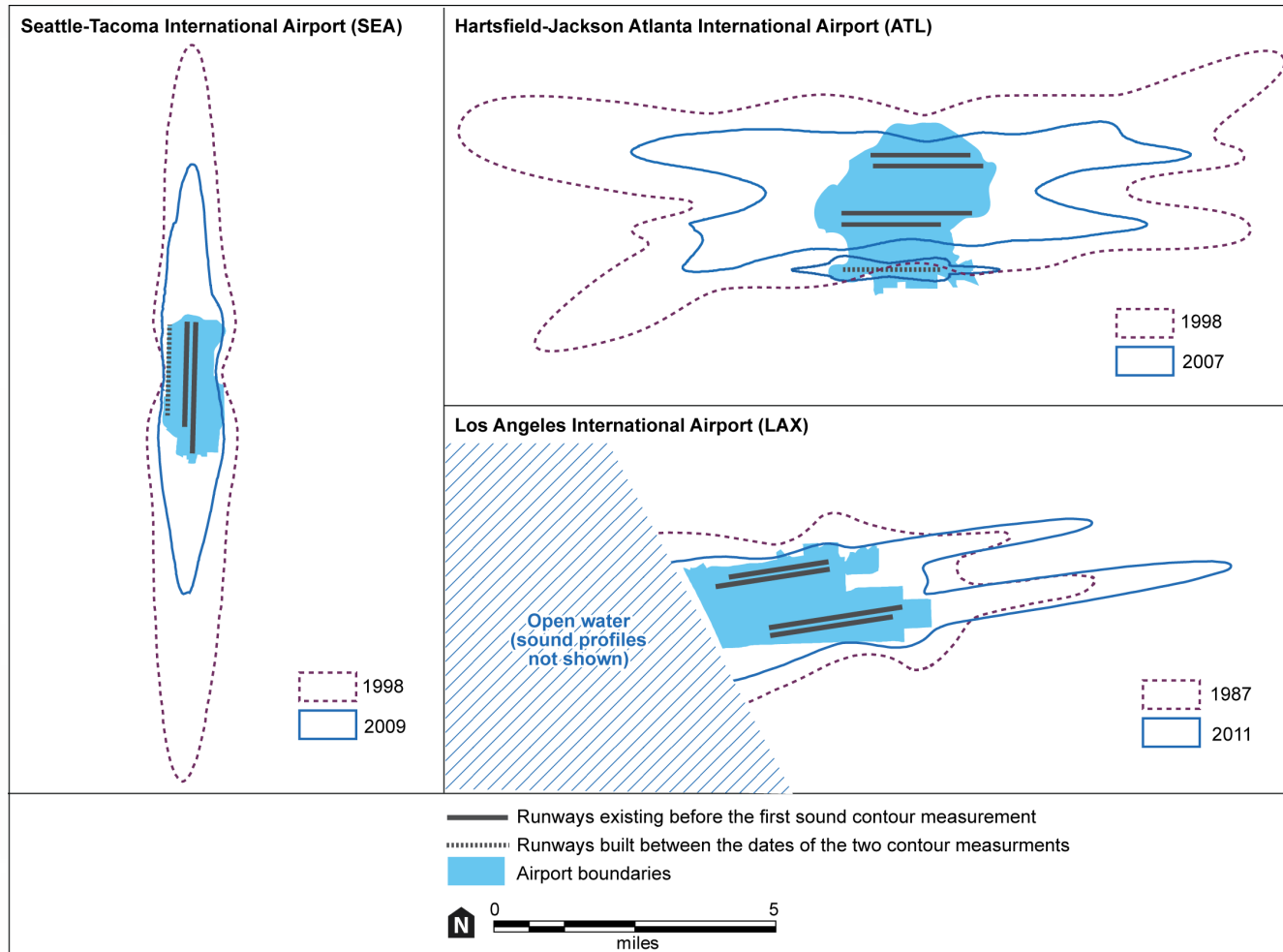
- We had various data sources on grant histories, future plans, population exposure estimates, and more.
- FAA insists that remaining noise issues must be addressed by airport-specific noise compatibility programs, elements of which are funded with AIP noise grants.
- We did not have a smoking gun to show that grants are going to projects that are not eligible.
- Collectively, we used data to indicate past, current and likely future program performance.

Indicator 1: Population Exposed to Airport Noise Has Declined



Source: GAO analysis of FAA data.

Indicator 2: Areas Exposed to Significant Airport Noise Are Smaller



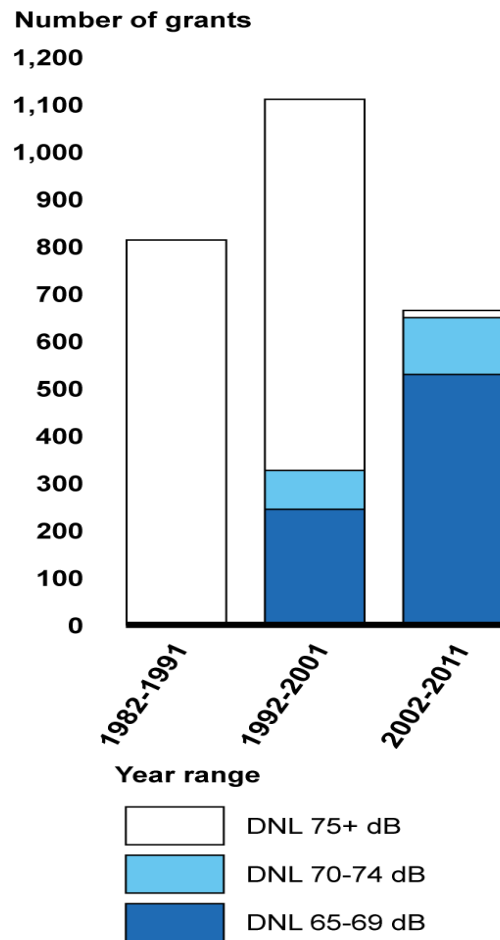
Source: GAO analysis of airport provided data.



Indicator 3: Airport Noise Exposure Maps Are Out of Date

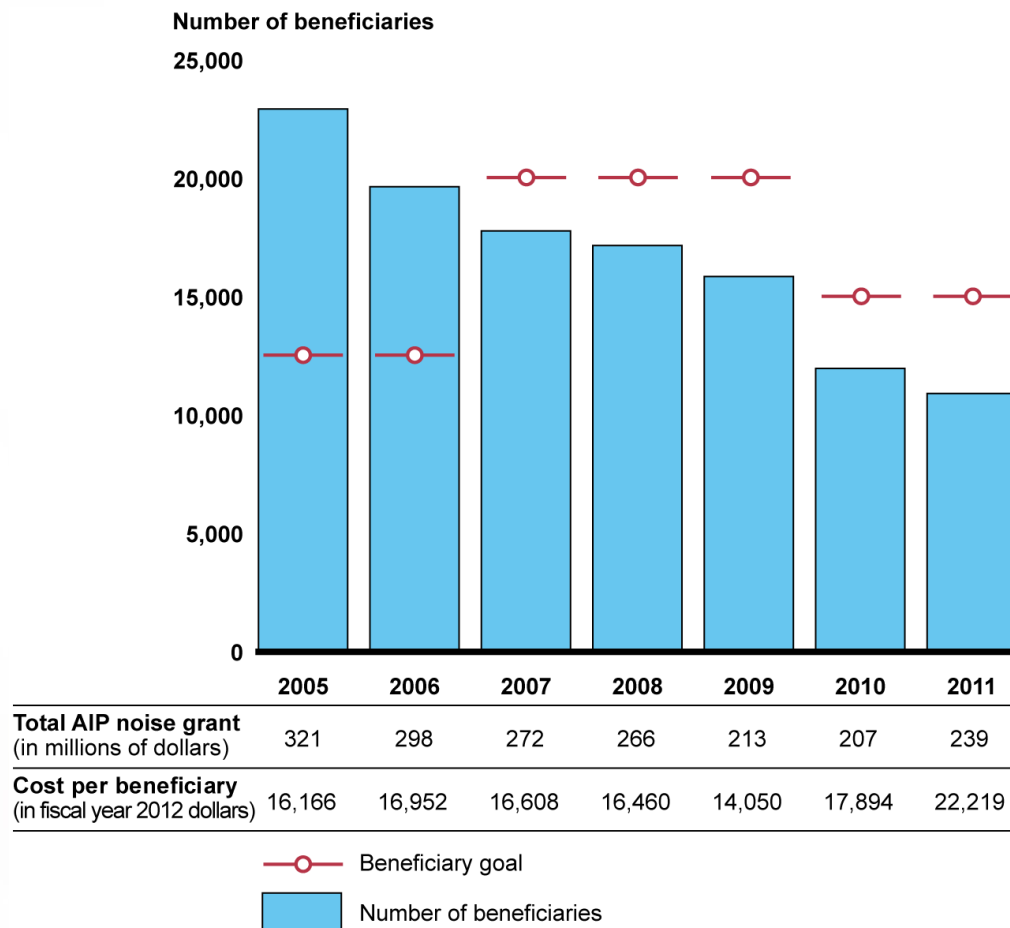
- FAA rules require maps to be reviewed every five years.
- 189 or 252 maps that could be used for noise grant eligibility are more than 5 years old.
- 126 maps are from 1999 or before.
- Nine of these 126 received \$88 million in grants in FY2010 and 2011 for projects in DNL 65-69 db areas.
 - Ontario International used a noise exposure map from 1990 for its current program.

Indicator 4: Grants Shifted to Lower Priority Areas



Source: GAO analysis of FAA data.

Indicator 5: Fewer Beneficiaries at Increasing Cost Per Beneficiary



Source: GAO analysis of FAA data.

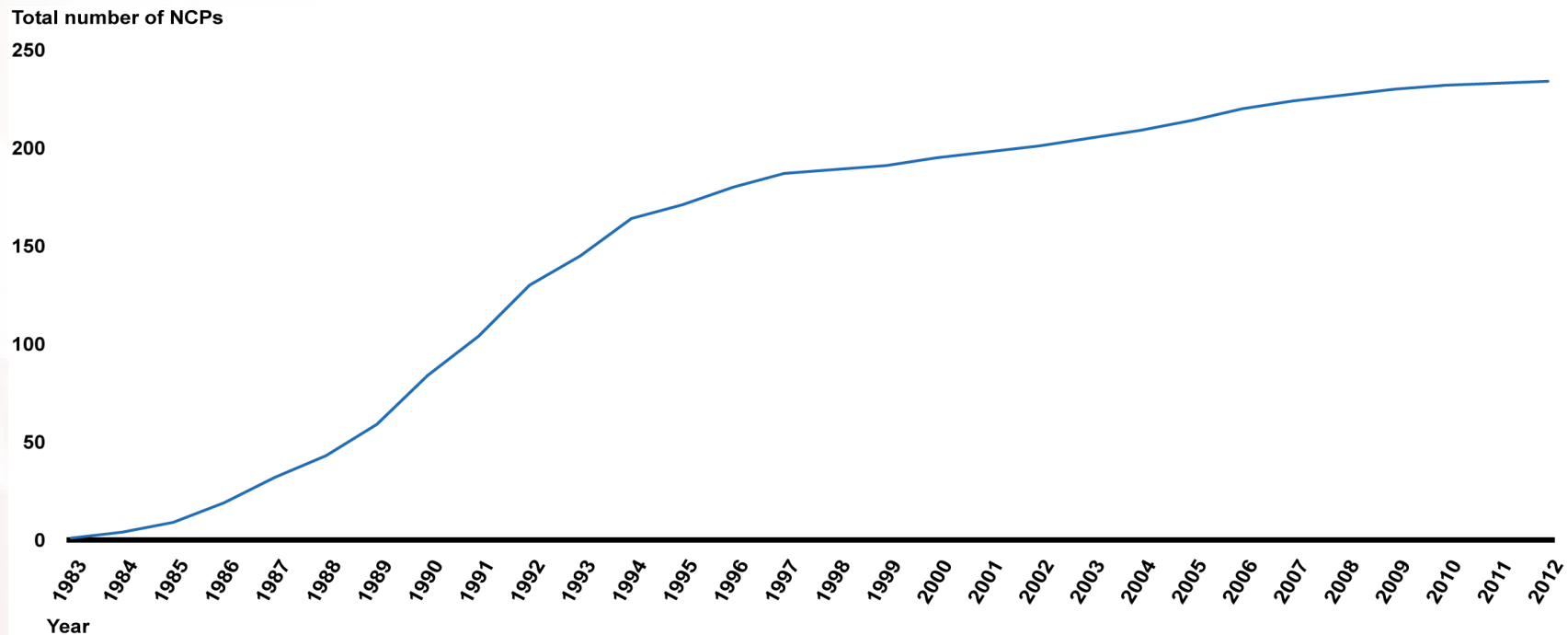
Indicator 6: Fewer Airports, Fewer Projects, but at Greater Cost

National Plan of Integrated Airport Systems (NPIAS)

NPIAS report	Airports with (and number of) noise projects	Estimated Project Costs (Billions)
2001-2005	104 (369)	\$1.4
2005-2009	88 (283)	\$1.4
2007-2011	91 (178)	\$1.6
2009-2013	93 (187)	\$2.0
2011-2015	87 (188)	\$2.1

Indicator 7: Noise Compatibility Planning Has Slowed

FAA Approval of Noise Compatibility Programs, 1983-2011



- About 1 of 3 people exposed to significant airport noise are near airports without a Noise Compatibility Program

Conclusion

- Without the “smoking gun” we lacked a strong negative effect.
- Taken together, indicators support our conclusions that:
 - “...going forward, the need for noise grants may be lower than in the past...”
 - “...the program may remain relevant for only a limited time in the future or need to be reformed...”

Conclusion

- During the course of our audit, FAA issued guidance that addressed many of our concerns.
- So we withdrew our recommendation, but stressed that FAA has the responsibility to ensure that future grants are directed to projects that meet the grant eligibility criteria.

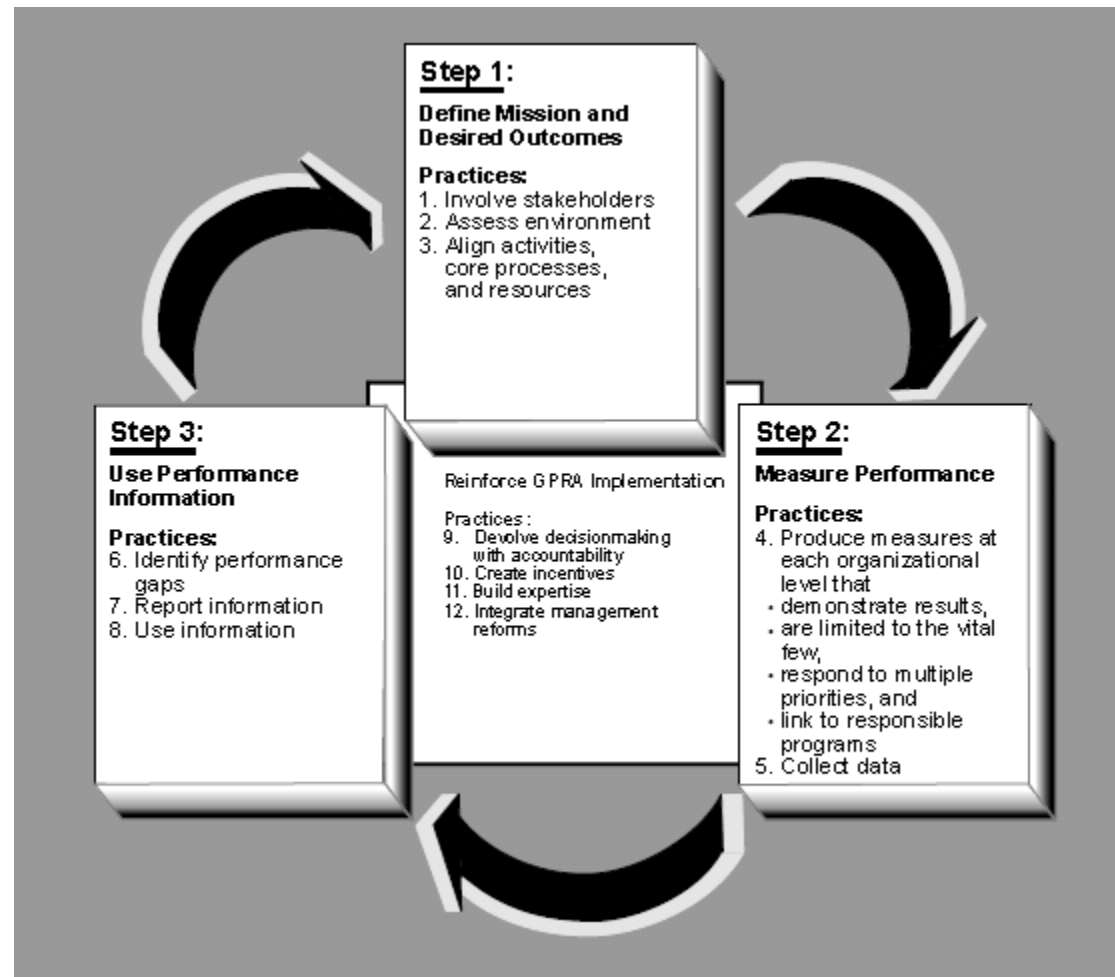
Agency Goals, Program Performance

Linking program performance to overall goals can provide a clear, direct understanding of how program results will lead to the achievement of (agency) goals.

An agency should establish *performance* measures that gauge progress toward desired outcomes and can be used as a basis for decision making.”

Executive Guide: Effectively Implementing the Government Performance and Results Act,
GAO/GGD-96-118

Implementing GPRA: Key Steps and Critical Practices



FAA Strategic Noise Goal

To ameliorate community noise concerns such that they are not a constraint on airport growth, FAA seeks to reduce the population living in significantly noise impacted areas to below 300,000 people nationwide by 2018.

FAA has stated that remaining exposure should be addressed primarily through Noise Compatibility Programs (not technology).



FAA's Strategic Noise Measure

Each year, FAA estimates the number of people exposure to significant airport noise.

$$\sum_{i=1}^{72} POP65_i - \sum_{j=1}^9 POPREL_j$$

2012 estimate = 309,000 people

Disconnect with Noise Grant Program

FAA's overall goal and measure are not linked to investments in the noise grant program:

- Population exposure trend a function of improved technology
- Omitted population relocated through noise grants from estimate
- No estimate of how much of the current residential population have already been mitigated
- 1/3 of estimated remaining population exposed at airports do not have a residential noise insulation programs
- Student and other mitigated populations not counted

Why This Matters

- FAA attributes results to the noise grant program that have nothing to do with grants, but are a function of technology.
- Paradoxically, FAA underreports the benefits of the grant programs (by not counting students, for example).
- Congress and FAA cannot make informed program management decisions or fully understand how noise may constrain airport growth in the future.
- GAO recommended that the agency noise goals and measures align with the grant program.

Bottom-line: Program results should contribute to agency goals.



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