



# NOISE OVERSIGHT COMMITTEE

February 17, 2021

*Audio recordings are made of this meeting*

# Agenda

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## 1. Consent

1.1 – Approval of January 20, 2021 Meeting Minutes

## 2. Public Comment Period

## 3. Business

3.1 – FAA Neighborhood Environmental Survey

## 4. Information

## 5. Announcements



**NOISE OVERSIGHT COMMITTEE  
FEBRUARY 17, 2021**

# ITEM 2

## PUBLIC COMMENT PERIOD



**NOISE OVERSIGHT COMMITTEE**  
**FEBRUARY 17, 2021**

# ITEM 2

## PUBLIC COMMENT PERIOD

### Speaking at a Meeting

- Each speaker will have one opportunity to speak and is allotted three (3) minutes.
- When called upon to speak, speak clearly, state your name and address. If you are affiliated with any organization, please state your affiliation.
- Commenters shall address their comments to the NOC and not to the audience.
- Use of profanity, personal attacks, or threats of violence will not be tolerated.



**NOISE OVERSIGHT COMMITTEE**  
**FEBRUARY 17, 2021**

# 3.1 – FAA NEIGHBORHOOD ENVIRONMENTAL SURVEY



**NOISE OVERSIGHT COMMITTEE  
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# Federal Register Contents

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## 1. Effects of Aircraft Noise on Individuals and Communities

- Speech Interference and Children's Learning
- Neighborhood Environmental Survey
- Health and Human Impacts Research
- Impacts to Cardiovascular Health
- Sleep Disturbance
- Economic Impacts

## 2. Noise Modeling, Noise Metrics, and Environmental Data Visualization

- Aviation Environmental Design Tool
- Noise Screening

- Environmental Data Visualization
- Supplemental Noise Metrics

## 3. Reduction, Abatement, and Mitigation of Aviation Noise

- Aircraft Source Noise Reduction
- Noise Abatement
- Noise Mitigation Research



# Neighborhood Environmental Survey (NES)

# Airport Selection

## AIRPORT SELECTION – MINIMUM CRITERIA

At least **100 JET** operations per day



At least 100 households exposed to aircraft noise of **DNL 65 AND ABOVE**



At least 100 households exposed to levels between **DNL 60 DB AND 65 DB**



## AIRPORT SELECTION THROUGH BALANCED SAMPLING FACTORS



Located in each of **8 FAA regions** in the contiguous U.S.

Average Daily Temperature:

above **70°F**



between **70** and **55 F**



and below **55°F**

Percent of DNL Nighttime operations:

↑ **20%**

and Below ↓



Average Daily Flight Operations:

↑ **300** and Below ↓



Aircraft Fleet Mix Ratio:

More large jet aircraft than commuter jet aircraft

or more commuter jet aircraft than large jet aircraft



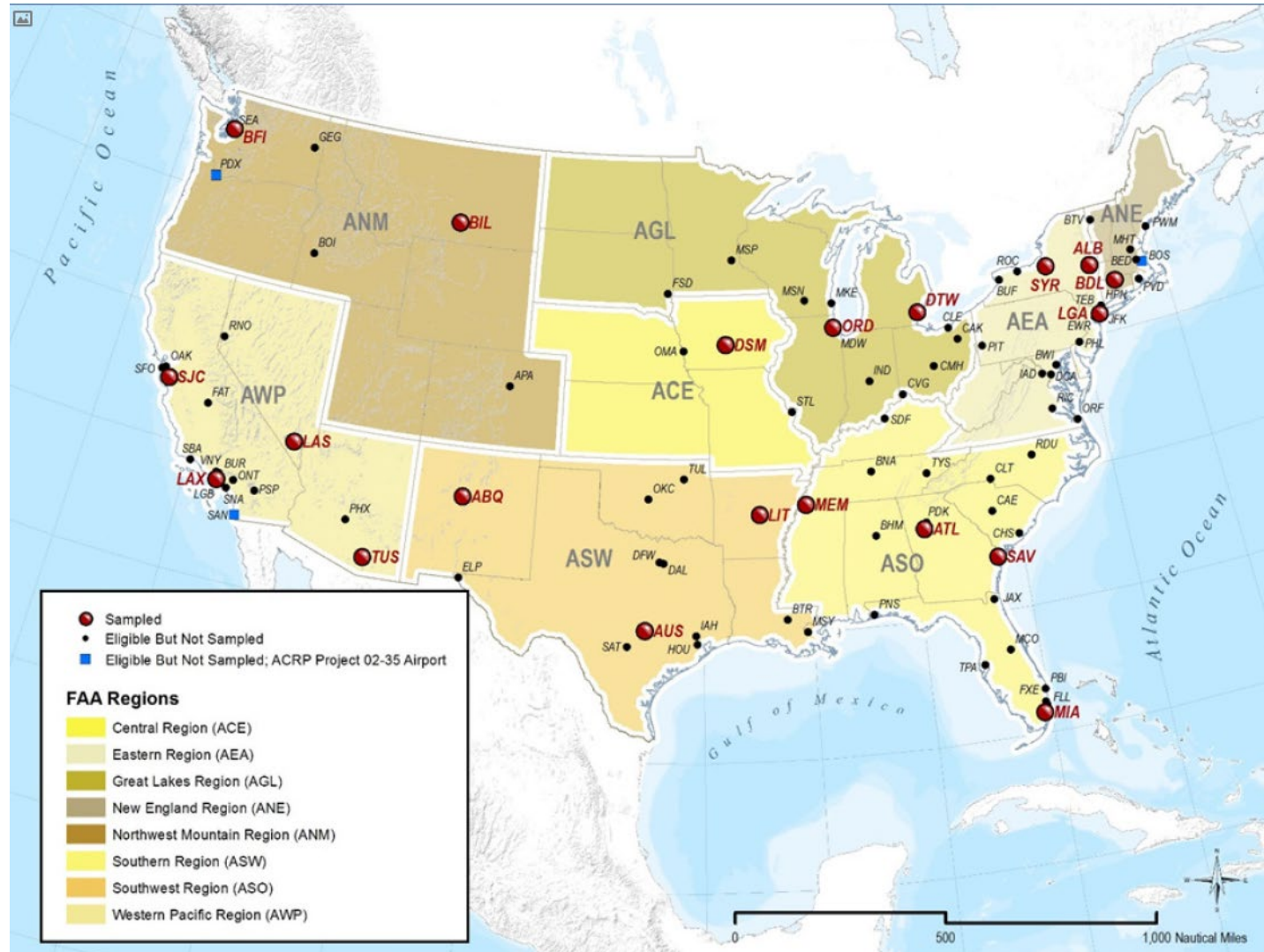
Population within Five Miles:

↑ **230,000** and Below ↓



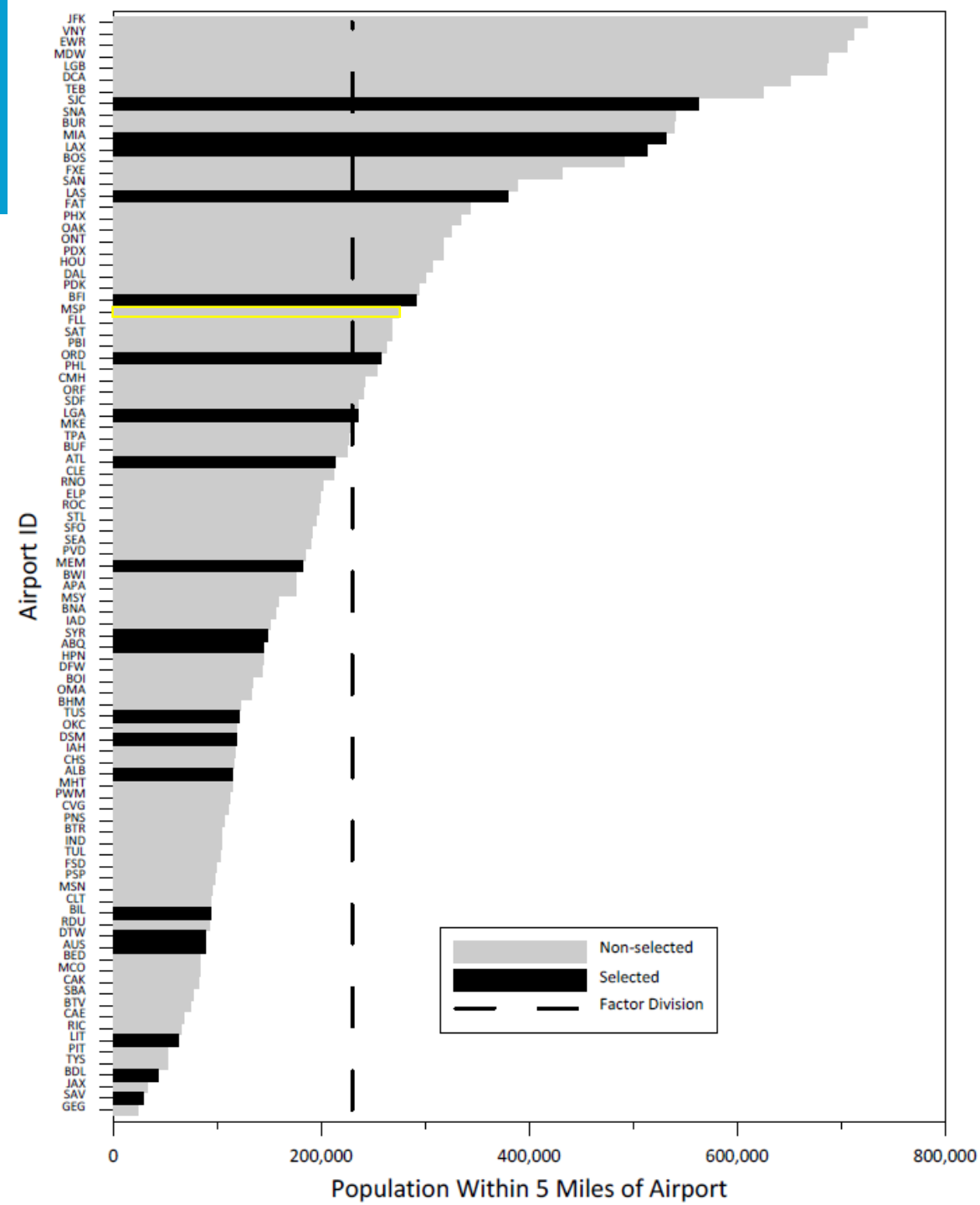


# Airport Selection



# Figure C-6

- Population within 5 Miles of Airport



# Survey Question

Rate each on a scale of 1-5, with 5 meaning **"most annoying."**

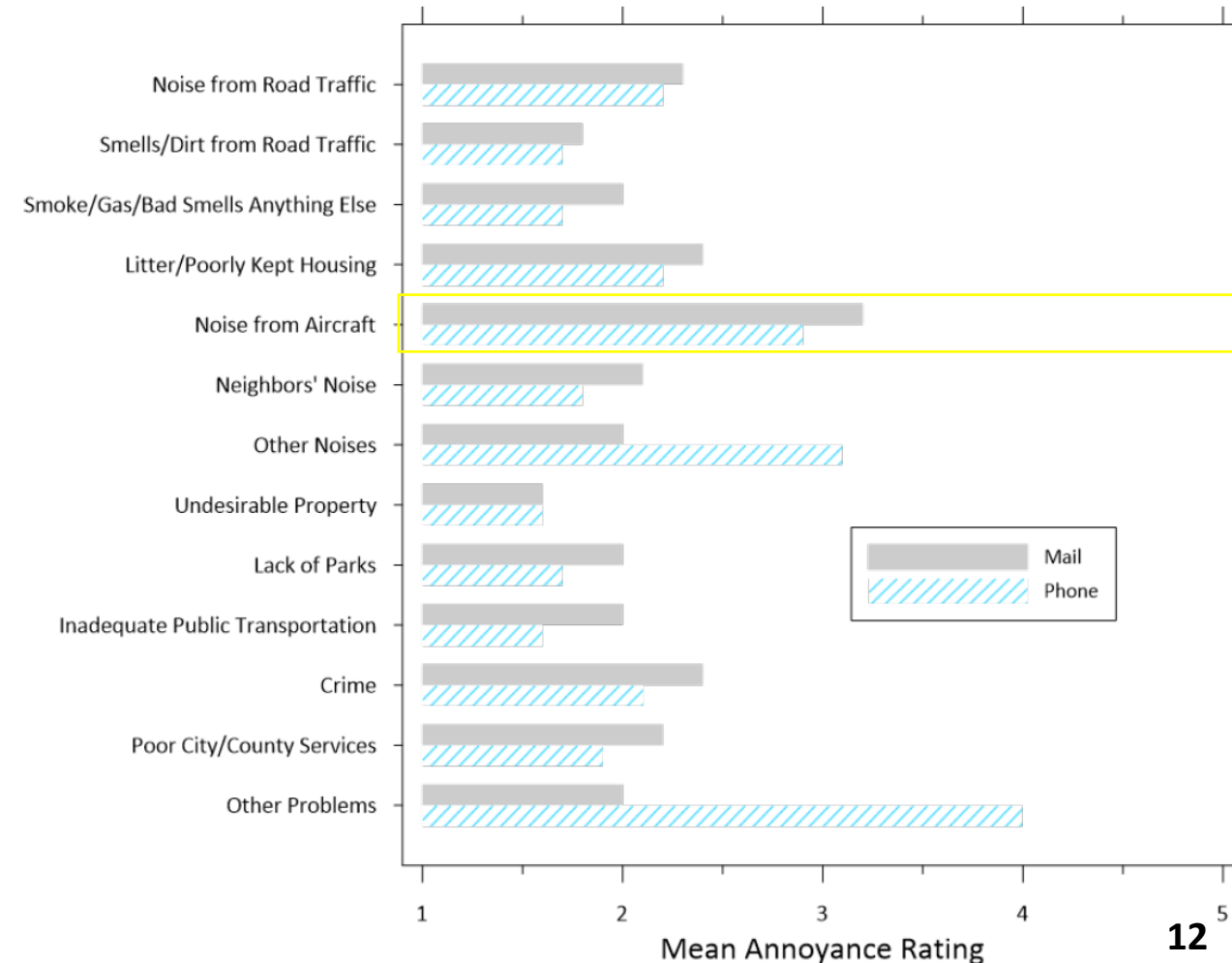
Thinking about the last 12 months or so, when you are here at home, how much does each of the following **bother, disturb, or annoy you?**

a. Noise from cars trucks or other road traffic	b. Smells or dirt from road traffic	c. Smoke, gas or bad smells from anything else	d. Litter or poorly kept up housing
e. Noise from aircraft	f. Your neighbors' noise or other activities	g. Any other noises you hear when you are here at home. If this bothers or annoys you, what is the noise?	
h. Undesirable business, institutional or industrial property		i. A lack of parks or green spaces	j. Inadequate public transportation
k. The amount of neighborhood crime	l. Poor city or county services	m. Any other problems that you notice when you are here at home. If this bothers or annoys you, what is the problem?	

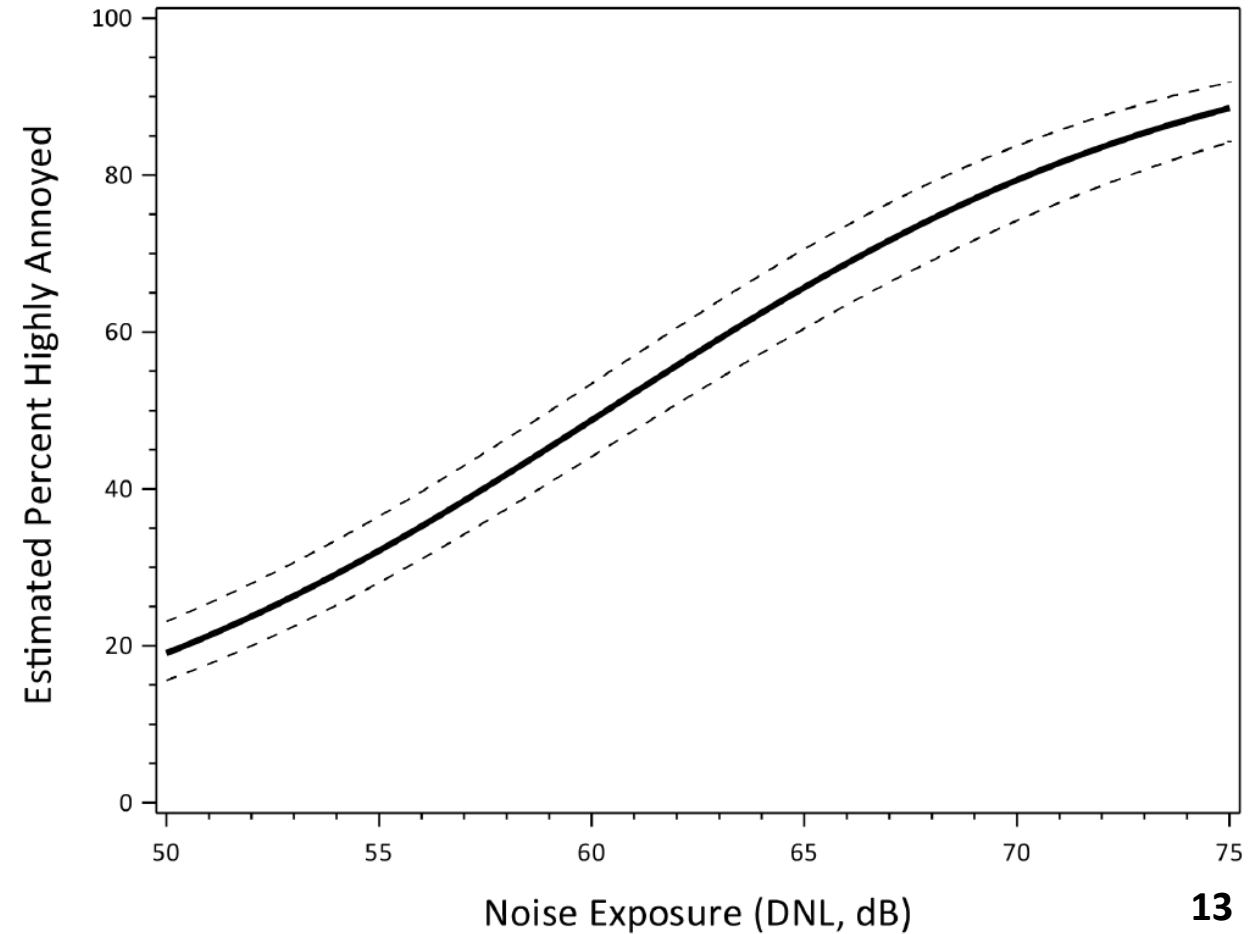
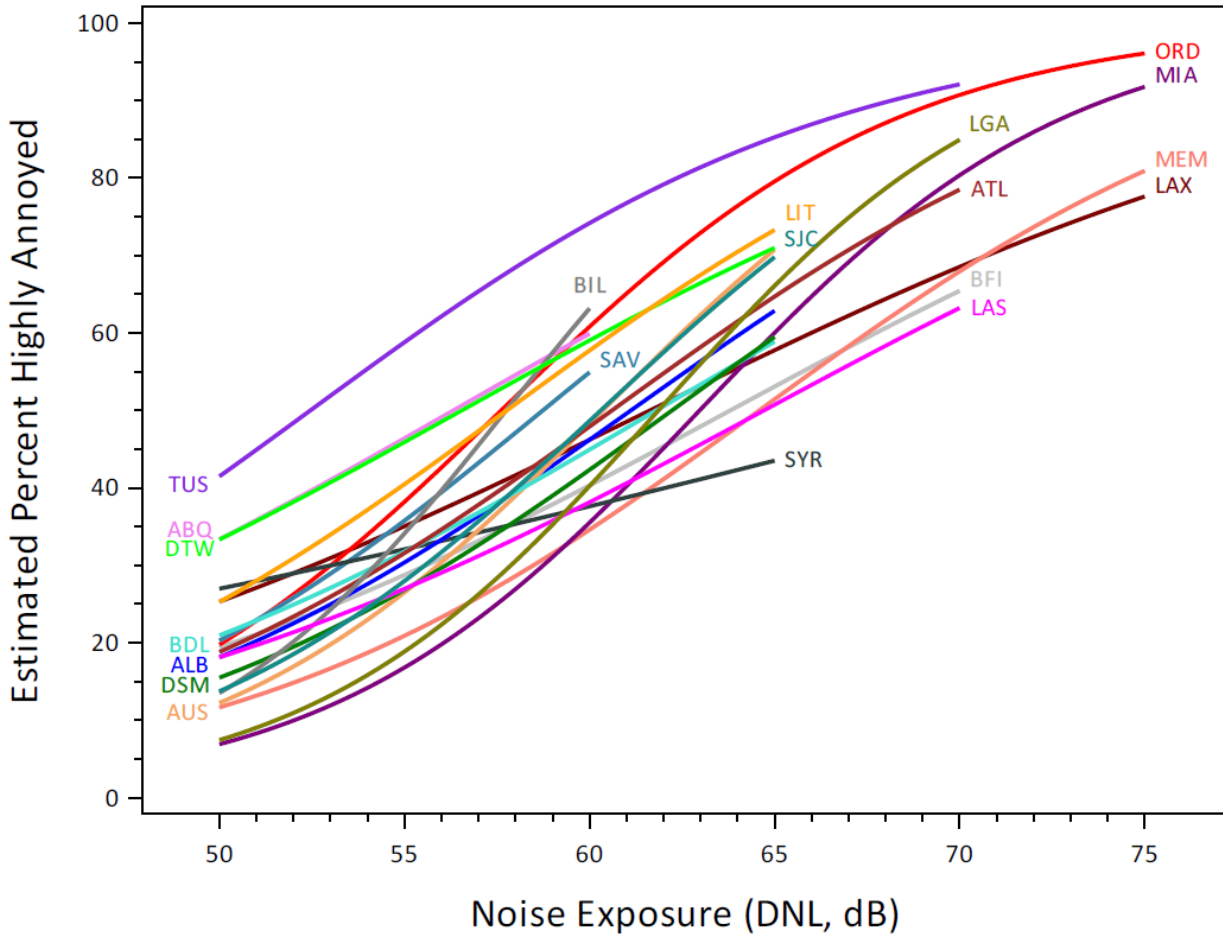
# Survey Responses

Table 10-1. Example Output Data from PUF – Survey Questions

Survey Question	Percent HA (score of 4 & 5)	Percent of Responses Within Each Category				
		Not at All Annoyed	Slightly Annoyed	Moderately Annoyed	Very Annoyed	Extremely Annoyed
		1	2	3	4	5
Noise from cars, truck or other road traffic	17	29	31	23	10	7
Smells or dirt from road traffic	11	53	23	13	6	5
Smoke, gas or bad smells from anything else	13	49	24	14	7	6
Litter or poorly kept up housing	22	35	26	17	12	10
Noise from aircraft	42	14	20	24	18	24
Your neighbors' noise or other activities	13	40	30	17	8	5
Any other noises you hear when are here at home	16	52	19	13	8	8
Undesirable business, institutional or industrial property	9	68	15	8	5	4
A lack of parks or green spaces	17	52	17	14	9	8
Inadequate public transportation	15	55	17	13	8	7
The amount of neighborhood crime	20	31	29	20	11	9
Poor city or county services	18	42	24	16	9	9

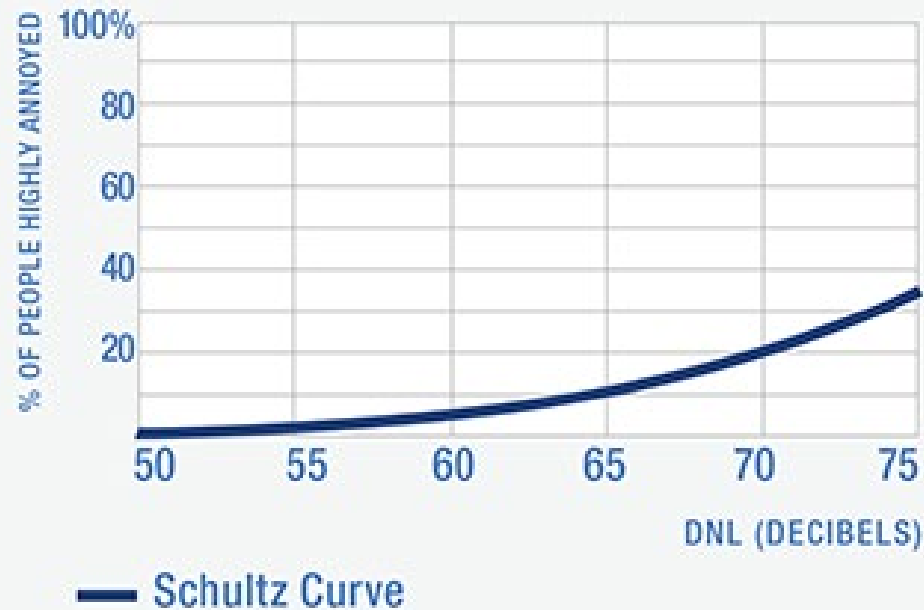


# Airport Dose-Response Curves

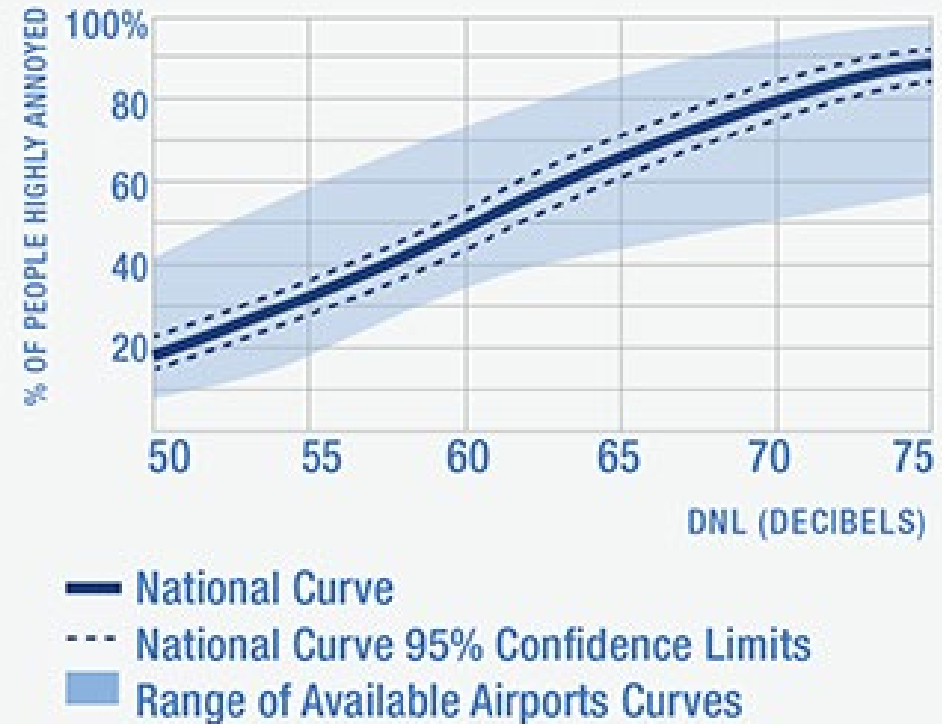


# Dose-Response Curve Comparison

## SCHULTZ CURVE



## NATIONAL CURVE



# NES Results

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- At **DNL 65 dB**, the updated *Schultz Curve* from the 1992 FICON Report indicated that **12.3%** of people were highly annoyed, compared to **between 60.1% and 70.9%** within a 95% confidence limit from the NES.
- At **DNL 60 dB**, the updated Schultz Curve from the 1992 FICON Report indicated that **6.5%** of people were highly annoyed, compared to **between 43.8% and 53.7%** within a 95% confidence limit from the NES.
- At **DNL 55 dB**, the updated Schultz Curve from the 1992 FICON Report indicated that **3.3%** of people were highly annoyed, compared to **between 27.8% and 36.8%** within a 95% confidence limit from the NES.
- At **DNL 50 dB**, the updated Schultz Curve from the 1992 FICON Report indicated that **1.7%** of people were highly annoyed, compared to **between 15.4% and 23.4%** within a 95% confidence limit from the NES.

# Response Requested

FAA WANTS TO HEAR FROM YOU. WHAT DO YOU THINK ABOUT:



Factors that may be contributing to the **increase in annoyance** shown in the Survey results



**Additional investigation** or analysis on:

- Effects of Aircraft Noise on individuals and Communities
- Noise Modeling, Noise Metrics, and Environmental Data Visualization
- Reduction, Abatement, and Mitigation of Aviation Noise



Additional categories of **investigation, analysis, or research** that should be undertaken to inform FAA noise policy



View the **Federal Register Notice**, where you can provide your comments on the FAA's noise research program.



# Letter Contents

- Source Noise Reduction
- Effect of Non-Acoustic Factors on Survey Results
- Noise Annoyance Threshold
- Alternative Noise Metrics
- FAA Noise Research



# Action Requested

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APPROVE THE LETTER AND REQUEST THAT THE MAC PLANNING, DEVELOPMENT AND ENVIRONMENT COMMITTEE ENDORSE AND FILE IT ON FEDERAL DOCKET NO. FAA-2021-0037 "OVERVIEW OF FAA AIRCRAFT NOISE POLICY AND RESEARCH EFFORTS".



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# ITEM 5

## ANNOUNCEMENTS

March NOC Meeting

**Wednesday, March 17, 2021 @ 1:30 PM**

**Microsoft Teams Meeting**



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