

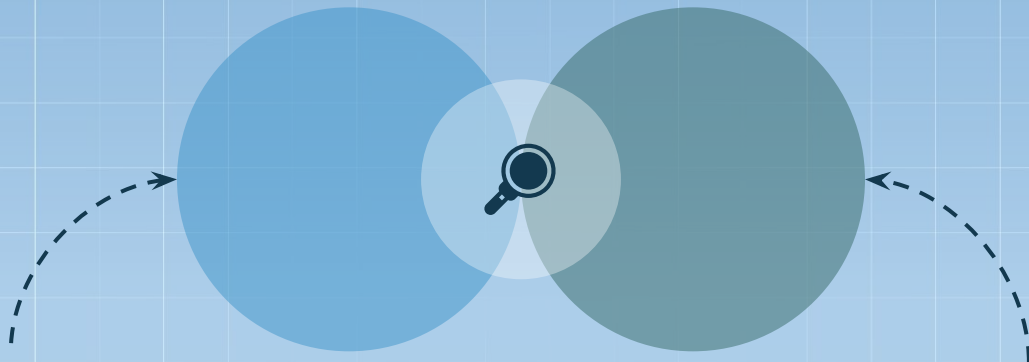
# LEADED AVIATION GAS LEGISLATION

How we used systems thinking to draft  
proposed legislative language

Presented by Ezra Berger



# WHO WORKED ON THE PROJECT?

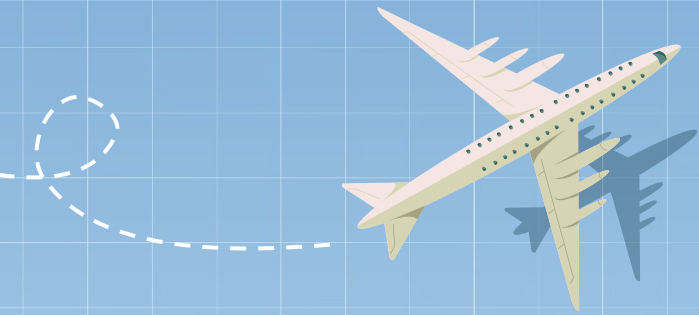


## BOSTON UNIVERSITY

In Boston University's CASEE538 students perform research tasks that assist environmental and public health officials, nonprofit professionals and volunteer citizens in achieving their missions. The work is supervised by Richard Reibstein, lecturer in environmental law and policy.

## QUIET COMMUNITIES

Quiet Communities, Inc. (QCi) is a nonprofit 501C3 organization that is dedicated to helping communities reduce health and environmental harm from noise and pollution. It operates through five programs: Quiet American Skies, Quiet Landcare, Quiet Coalition, Quiet Healthcare, and Quiet Empowerment.



## **Our philosophy:**

Public officials have a  
responsibility to protect their  
constituents from harm

# THE PROBLEM WITH LEAD\*:

## POLLUTION:

Today, leaded avgas used in piston engine aircraft is the leading source of lead pollution in the domestic atmosphere, accounting for 70% of all lead pollution released into the air in the United States

## HEALTH:

A 5-point drop in IQ from lead exposure alone increases the population of “challenged” children ( $IQ \leq 70$ ) by 57% – from 6 million to 9.4 million – and decreases the number of “gifted” children ( $IQ \geq 130$ ) from 6 million to 2.4 million. Exposure of children to other environmental toxicants increases the magnitude of this shift.

## COMMUNITY:

A twenty-plus-year history of neglect and inaction on leaded avgas has fuelled anger and frustration in communities across the country. Many ask, “why has lead been allowed to persist in aviation fuels when it was banned 30 years ago from road vehicles?” Leaded AVGAS is an environmental justice issue.

## EDUCATION:

Education is needed to inform pilots of the economic benefits of unleaded fuel, e.g., cleaner, longer running engines, reduced maintenance that may help to offset the higher price of fuel. Education is also needed to inform the pilots, workers, and surrounding community of the hazards of leaded AVGAS.

## — TIMELINE —

01

FINDING

First, we found the FAA Reauthorization Act of 2023 as it was going through Congress



02

EXAMINING

Second, we had to look at the language and see what needs to change



03

DRAFTING

Third, we worked together to draft new language



04

PROMOTING

Fourth, we took the drafted language to EarthJustice



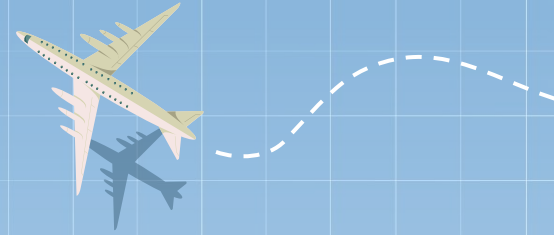
05

MAKING IT  
LAW?

Now, we are hoping to negotiate to make it part of the FAA Reauthorization Act!



# HOW WE USED *SYSTEMS THINKING*:



## What is “systems thinking”?

Systems thinking is a holistic way to approach a problem! It is ultimately a “way to investigate factors and interactions that could contribute to a possible outcome.”\*

**How did we use it?** → We used a multipronged approach to look at the problem of Leaded AVGAS.

Three main factors for changing the FAA Reauthorization Act of 2023 are

1. the environment/health
2. the industry(s)
3. the policies already in place.

Source: \*<https://www.snhu.edu/about-us/newsroom/business/what-is-systems-thinking>

# OUR MULTI-PRONGED APPROACH



## THREE PRONGS

For the FAA  
Reauthorization Act

### ENVIRONMENT /HEALTH

- How can we negate the negative effects of lead?
- What is needed to make the change?

### INDUSTRY

- What does the industry need to learn for the transition?
- How can we reward/help good industry partners?

### POLICY

- What laws already exist (precedent)?
- What needs to change in FAA Reauthorization Act of 2023?

# WHERE ARE WE NOW?

This project is **ongoing**.

Currently, QC is taking the legislative draft to EarthJustice and Friends of the Earth, who will help us negotiate with the industry leaders, and bring that to Congress.





# **THANK YOU**

