Background
- Ultra fine particles (UFPs), are air pollutants released by aircrafts that are not regulated or monitored by the EPA.
- UFPs are associated with short and long-term health effects such as worsening of asthma and development of cardiopulmonary diseases.
- The impact of their presence is often neglected which disproportionately effects communities nearby airports. See Figure 1.

Results: Communities Exposed To UFPs
Communities of color are disproportionately affected by UFP exposure. See Figure 2 and 3.

Results: Solutions
- Rep. Gerry Pollet believes that HB: 1291 offers an effective solution for this issue.
- Dr. Elena Austin is awaiting a future where airlines switch their aircrafts fuel sources.
- Environmental justice experts Esther Min & BJ Cummings expressed the importance of community lead solutions.

Significance & Next Steps
- Support policies like HB 1291 and advocate for their improvement.
- Educate and provide supplies to communities on how to create a box filter. See Figure 5.
- Fund more research into finding alternative aircraft fuel sources.

Research Question
- Which communities are most exposed to UFPs?
- What solutions are out there to lower communities’ exposure to this pollutant?

Internship
I worked with King County Medical Society to report the impact of aircraft pollution on communities living near airports.

Methods
- Literature review- difference between PM 2.5 and UFPs & health implications of UFPs.
- Data collection-population data in cities with large airports.
- Interviews- with policy, science, and social justice experts to better understand this issue.

Lower income communities are disproportionately affected by UFP exposure. See Figure 4.

Significance & Next Steps
- Support policies like HB 1291 and advocate for their improvement.
- Educate and provide supplies to communities on how to create a box filter. See Figure 5.
- Fund more research into finding alternative aircraft fuel sources.

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