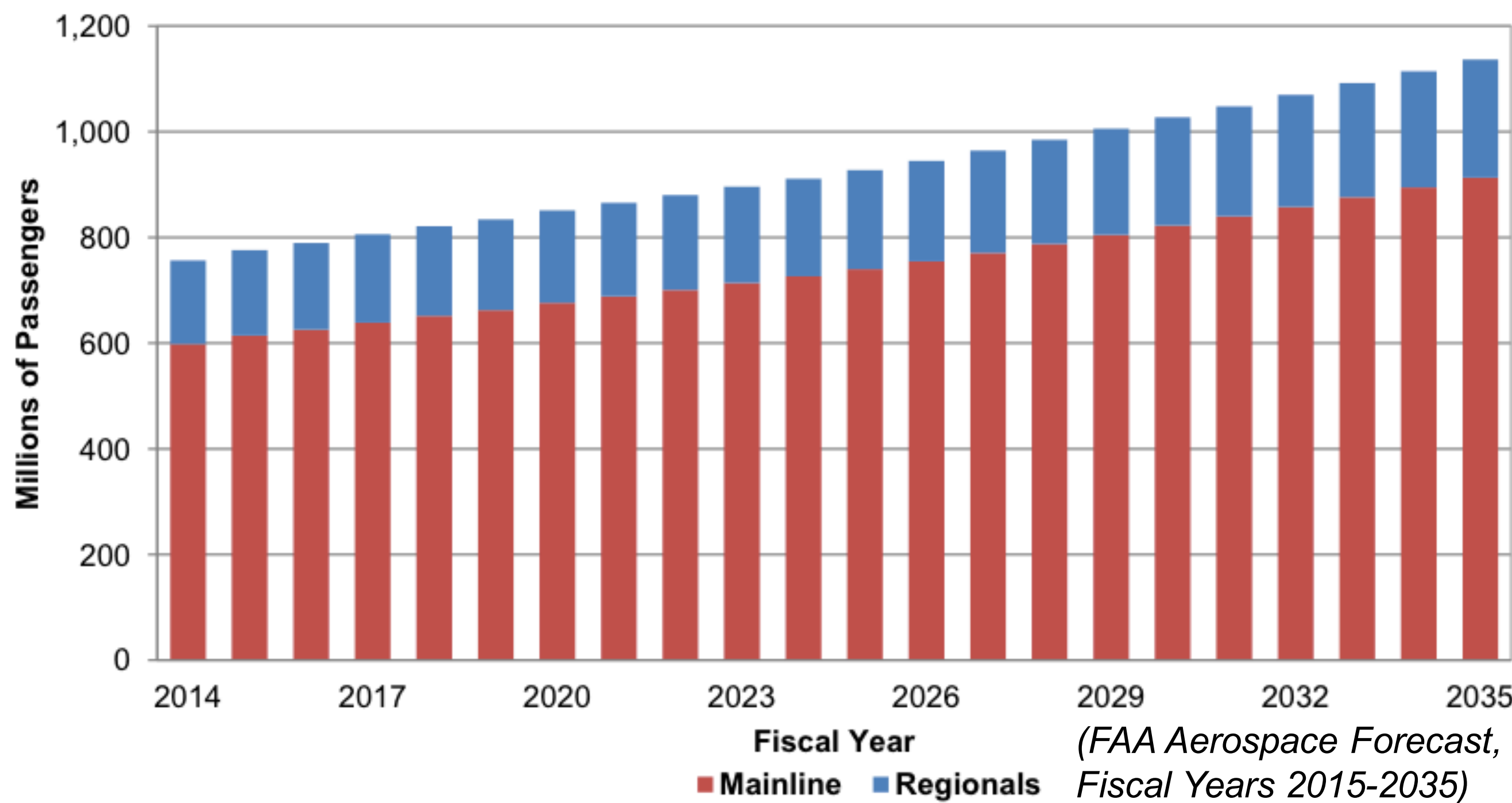


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## Motivation & Problem Statement

**Increase in air traffic demand** – the Federal Aviation Administration (FAA) forecasts a US passenger growth of an average 2% a year over the next 20 years.

U.S. Commercial Air Carriers System Enplanements



**Challenge:** Management of construction sites in airports environments to reduce risk to airport operations. Proximity between construction equipment, materials, and crew, and airport operational areas.

**What are the construction related factors that affect airport operational safety?**

## Objective & Research Approach

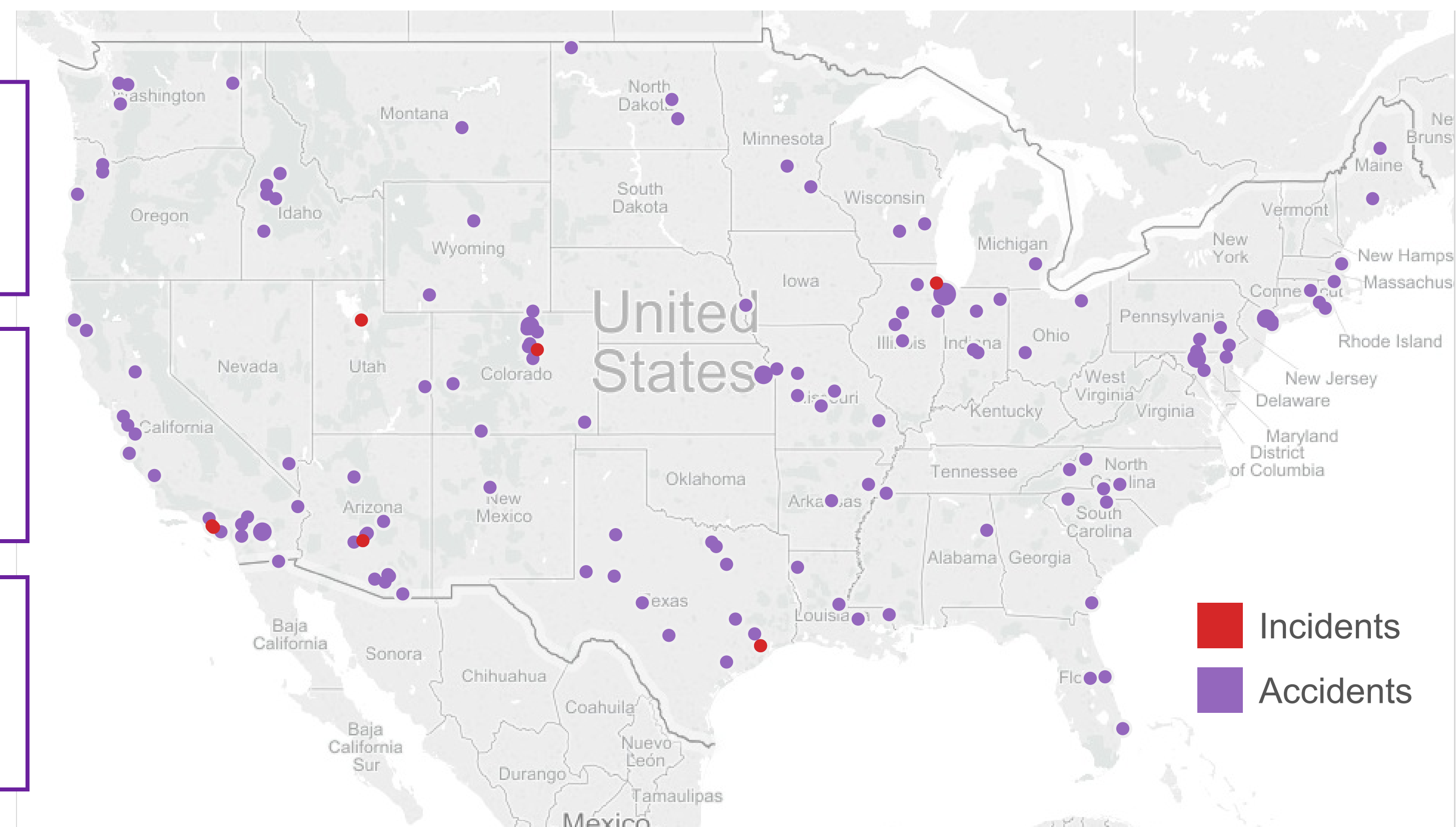
- ❖ **Objective:** To identify the construction related factors that lead to accidents/incidents and their impact on airport operations.
- ❖ **Research Approach:**
  - Literature Review**
    - Standards and Guidelines
    - Airport construction safety
    - Data analysis efforts
  - Ethnographic Studies**
    - FAA representatives
    - Construction companies
    - Airport authorities
  - Data Analysis**
    - In historical datasets in Aviation Databases
    - Community clustering for major factors

## Initial Findings & Expected Contributions

### Identified construction related factors

STOCKPILED MATERIAL	EQUIPMENT STORAGE	OBSTRUCTIONS TO AIR NAVIGATION	HAZARD MARKING
NOTICES TO AIRMEN	WEIGHT	CONTRACTOR'S VEHICLES	CONTRACTOR ACCESS
FOREIGN OBJECT DEBRIS	WILDLIFE	CONDITION OF RUNWAY/TAXI-WAY CLOSURES	DISPLACED THRESHOLDS

### Construction related accidents/incidents



- ❖ **Expected Contributions:** Foundational understanding on safe planning of airport improvement projects, broadening the knowledge on major factors contributing to accidents/incidents on airports and enabling further research on the subject. *Expected results* include identification of new factors, study of the factors identified, and analysis of aviation accidents/incidents data for providing a thorough assessment of construction impact on airports.