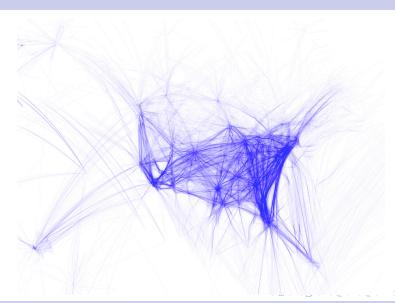
Project 2: The Plight of the Late Flight

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May 15, 2014



Contents

- 1 Overview and Question of Interest
 - Question of Interest
 - Choosing A Metric
 - Narrowing Scope
- Population-Based Findings
- Sample-based Findings

- Sample Frame
- Findings
- Sampling Performance
- 4 Discussion, Obstacles and Solutions
- 5 Future Work
- Questions

Overview

- Data: Bureau of Transportation Statistics (BTS)
- Last 25 years
- 30 Unique carriers
- 376 Unique origins

Question of Interest

Is there evidence that delay times for a particular airline is improving over the last 25 years?

How do we define "improvement" in delay?

Improvement is defined as negative change in delay time, where delay can be measured using the folling metrics:

- Arrival delay
 - What customers about

OR

- Carrier + Late Aircraft delays
 - What carries are able to control

Narrowing Scope

- Ran all airline and years
- Only kept airlines with 10+ years of service
 - 10+ is enougth to discern a pattern
- Aggregating to creating yearly averages
 - Average over seasonal effects to compare year to year

Population-Based Findings

WAITING FOR WORK FROM ETHAN AND ANDREW

Sample-based Findings

- 1 Stratify by unique carrier
- 2 Stratify by year (1989-2013)
- 3 Stratify by origin airport size (as determined by flight traffic volume)
 - Proportional sample from strata based on number of flights

Sample Frame

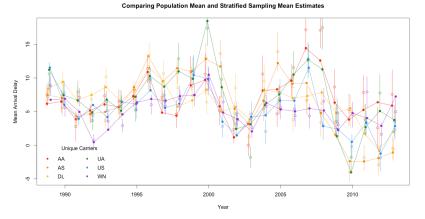
Assumption: Due to coordination of air traffic control efforts, flights originating from airports of similar traffic volume would have similarities in delay patterns

- Found traffic volume for each origin over 25 years
- Found average traffic volume
- Ordered and stratified based on size
 - Create subsets of carriers
 - Used %in% when filtering

Findings

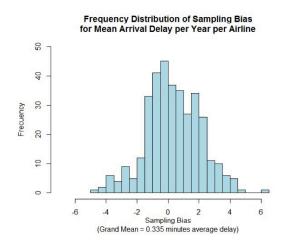
Findings

Sampling Performance: 76% Coverage





Bias



Discussion, Obstacles and Solutions

Future Work

Google? Which airline is sexy?