# Fluctuations in Airline Fares

### **2017 Airfare Dashboard**

We chose to use data from Transportation.gov.

- Original Data Source: "Consumer Airfare Report: Table 4 City Pair Markets With a Substantial Decrease in Average Fare"
  - Ended up assessing the year 2017 because all of the geospatial coordinates were included for this year, AKA the data was a complete set.
  - Data was cleaned via Pandas and re-exported as a cleaned CSV
    - Latitude and Longitude were separated via regex

Technologies Used: sqlite, pandas, pathlib, regex, numpy, sqlalchemy, js, html, python, flask, d3

## Data Cleaning Continued

PRE POST

Р	Q
Geocodec♥	Geocodec 🔻
Austin, TX (30.264979, 7-97.746598)	Kansas City, MO (39.099792, -94.578559)
Albuquerqu e, NM (35.084248, - 106.649241	Austin, TX (30.264979, -97.746598)

Latitude1		Longitude1		Latitude2		Longitude2									
Search column				Search colum		Search column									
30	.264979	-97.	746598	3	9.099792	-94	.578559								
35	.084248	-106.	649241	3	0.264979	-97	.746598								
38	.835224	-104	819798	2	8.538331	-81	.378879								
33.748547 33.748547 33.748547		-84.391502 -84.391502 -84.391502		30.406931 41.765775 36.166687		-87.217578 -72.673356 -86.779932									
								33	.748547	-84	391502	4	2.358894	-71	.056742
								33	.748547	-84	391502	4	4.977479	-93	.264346
30.264979		-97.746598		40.442169		-79.994945									

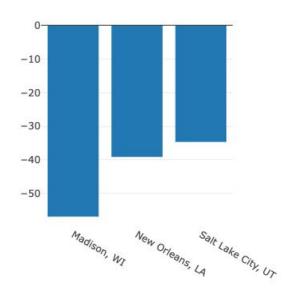
- This was a big hurdle for us in restructuring our data.
  - We were able to remove the city names and isolate our latitudinal and longitudinal coordinates.

#### First Visual

 This visual is assessing the price change from the original departure city to the subsequent arrival city.



#### Price Change by Destination



#### Second Visual

- In this visual, we chose to look at passenger quantity changes by departure city to arrival City.
  - In this snapshot, the departure city is set to
    Denver, Arrival Cities displayed in graph

