

Don't Waste Data

, a decrease of 3 percentage points from the first quarter.

# The Traveling Mailpiece Problem

Las Vegas, Seattle, San Diego, Orlando and countless communities in between will see mail service slow by as much as a day under the U.S. Postal Service's strategic restructuring plan, a Washington Post analysis shows.

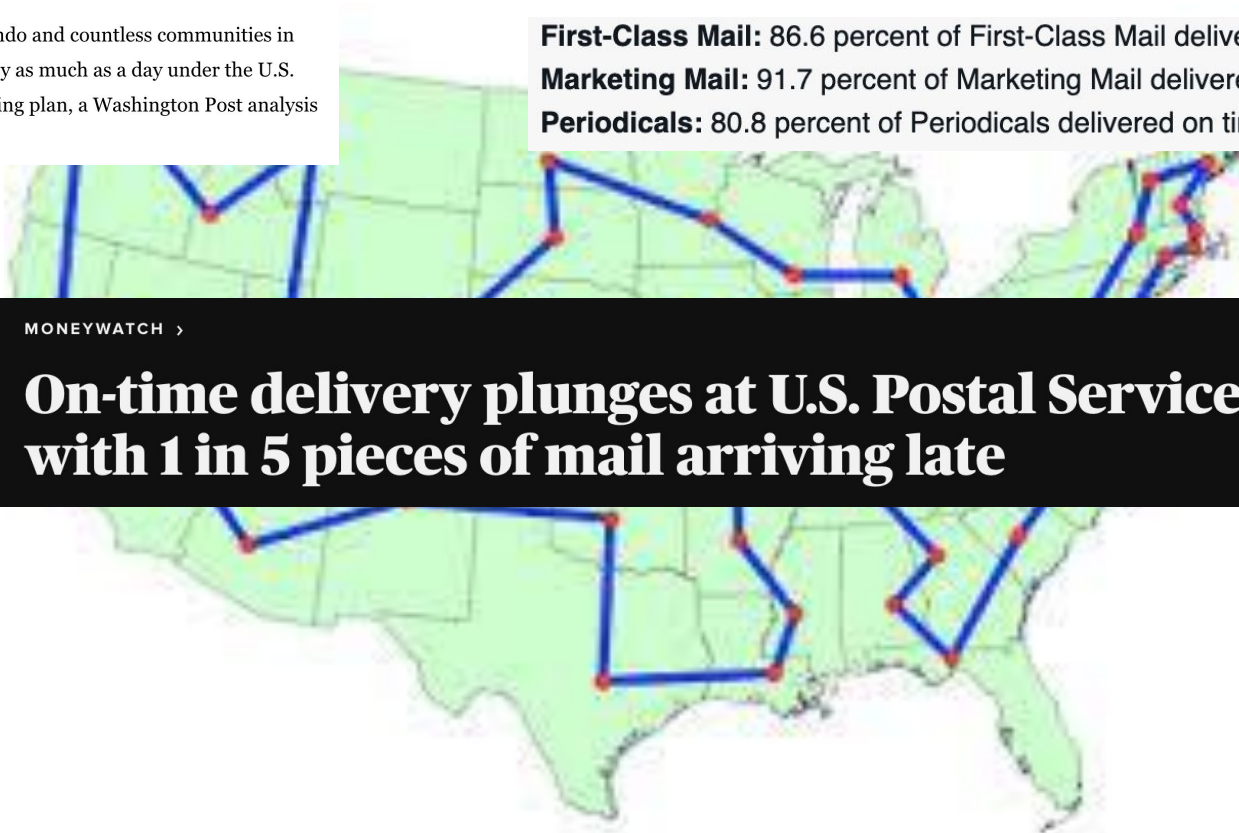
**First-Class Mail:** 86.6 percent of First-Class Mail delivered on time

**Marketing Mail:** 91.7 percent of Marketing Mail delivered on time

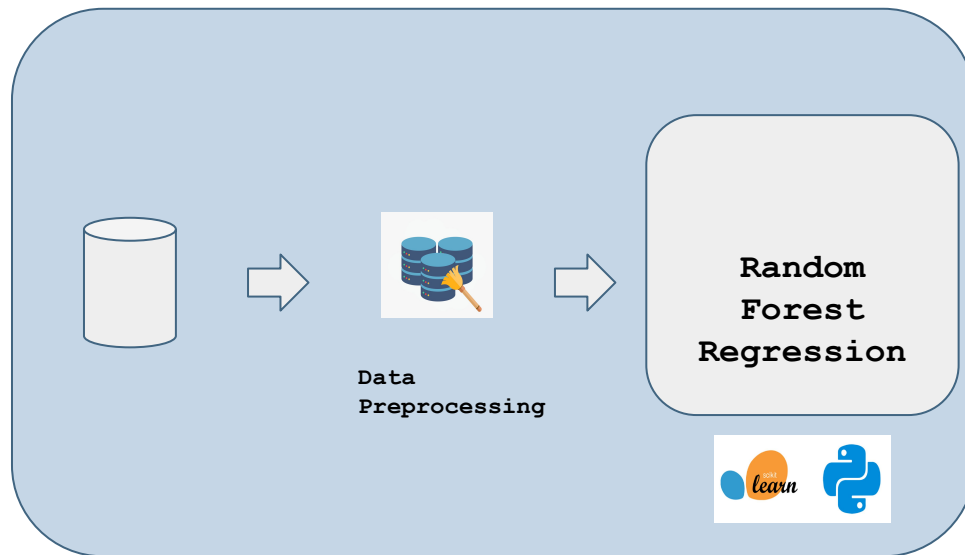
**Periodicals:** 80.8 percent of Periodicals delivered on time

MONEYWATCH >

**On-time delivery plunges at U.S. Postal Service, with 1 in 5 pieces of mail arriving late**



# Putting Data to Work



# So what's the context here?

- USPS network along with the scan data is notoriously messy
- We focussed specifically on high value scan signals generated by postcards in NDCs (the top hierarchical stop in a USPS network)



## Seeing The Forest For the Trees

```
# baseline_preds = test_features[:, feature_list.index('avg_time_in_transit')]
# baseline_errors = abs(baseline_preds - test_target)
# print('Average baseline error: ', round(np.mean(baseline_errors), 2))

# Average baseline error:  1.43
```

```
4 errors = abs(predictions - test_target)
5 # Print out the mean absolute error (mae)
6 print('Mean Absolute Error:', round(np.mean(errors), 2), ' days.')
```

```
[3.97567568 2.71428571 4.34052198 ... 5.37173372 1.          3.72916667]
Mean Absolute Error: 0.86 days.
```

A photograph of a classroom. In the center, a whiteboard is mounted on the wall with the text "The Takeaway" written on it. The room contains several rows of desks and blue chairs. To the left, there is a grey cabinet with papers on it. To the right, there is a white wall-mounted light fixture and a whiteboard. The floor is light-colored wood.

# The Takeaway