# Alternate Pricing Models for Transportation Contracts

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## Background

Transportation contracts are made for a period of 1-2 years, making them **irrelevant to the market dynamics**, resulting in :

- Rejection of loads by carriers
- Higher % of loads going to spot market
- Increased cost & reduced service levels

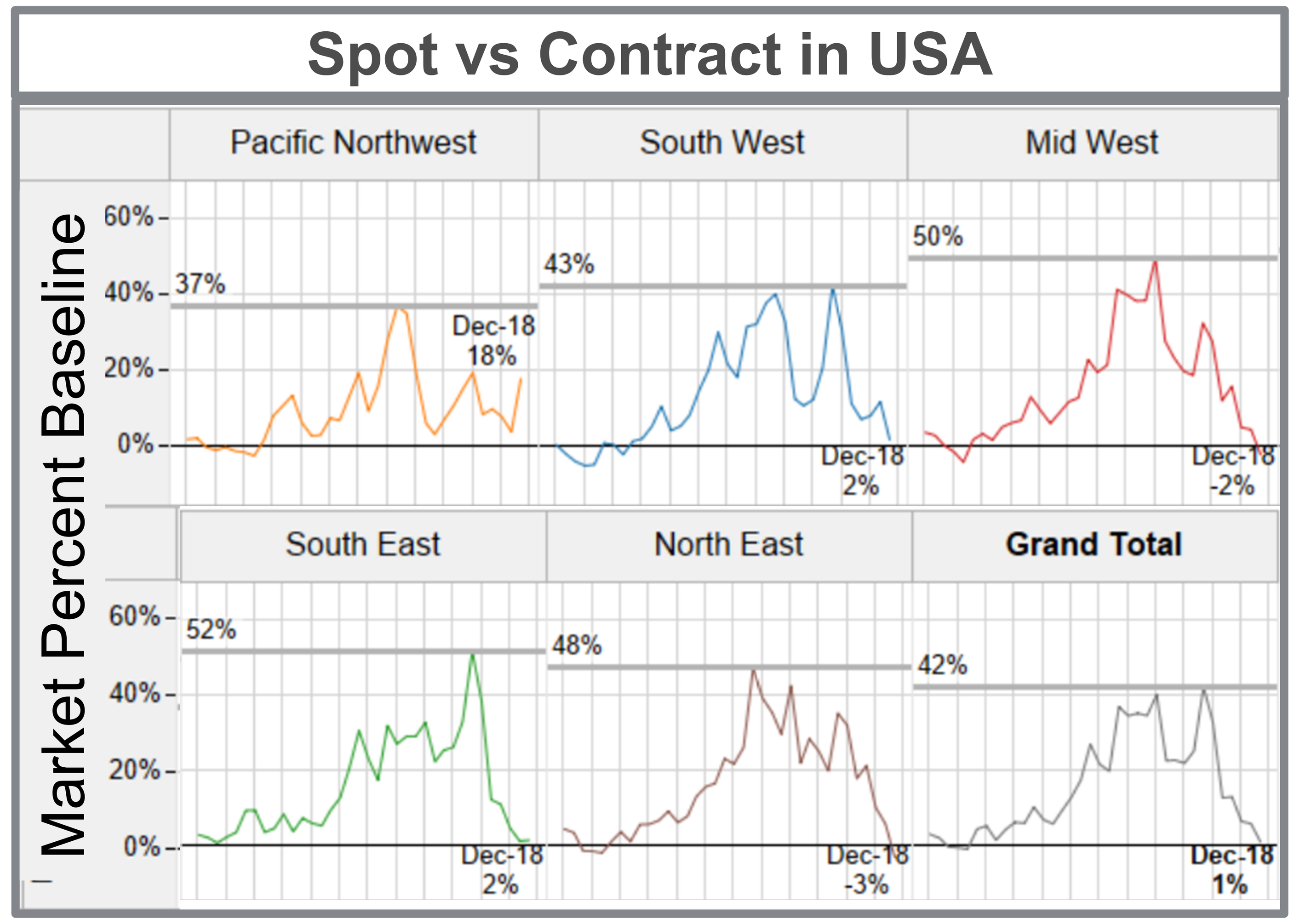



Image source : Chainalytics

## Hypothesis

Index based contract pricing will lead to better service levels and reduced expenses.

## Relevant Literature

- Kim, Y. J. (2013). Analysis of truckload prices and rejection rates
- AT Kearney. (2018). CSCMP's Annual state of logistics report
- Caplice, C., & Sheffi, Y. (2003). Optimization-based procurement for transportation services

## Methodology

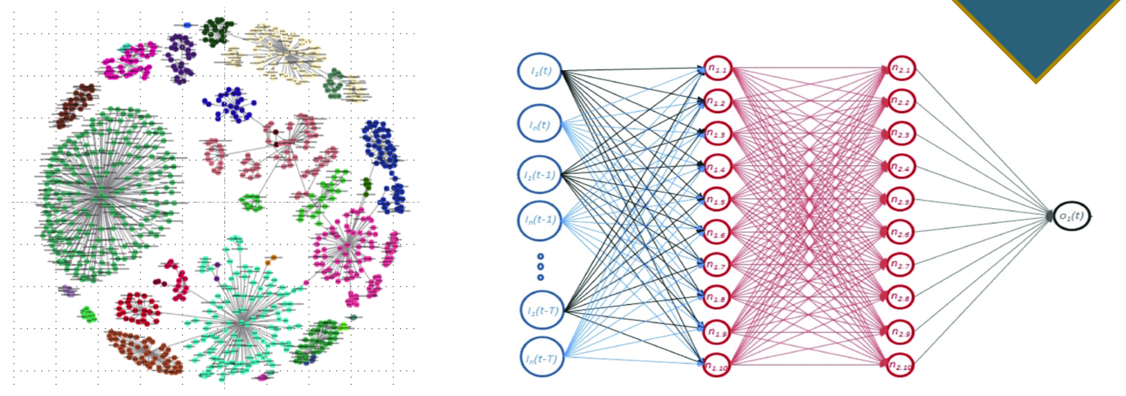
- Bid files
- Tender acceptance
- Shipment details
- Market Index
- Supplier discussions

Spot Rate vs Contract Rate

Regional Variations

Carrier Acceptance

Service Level Metrics

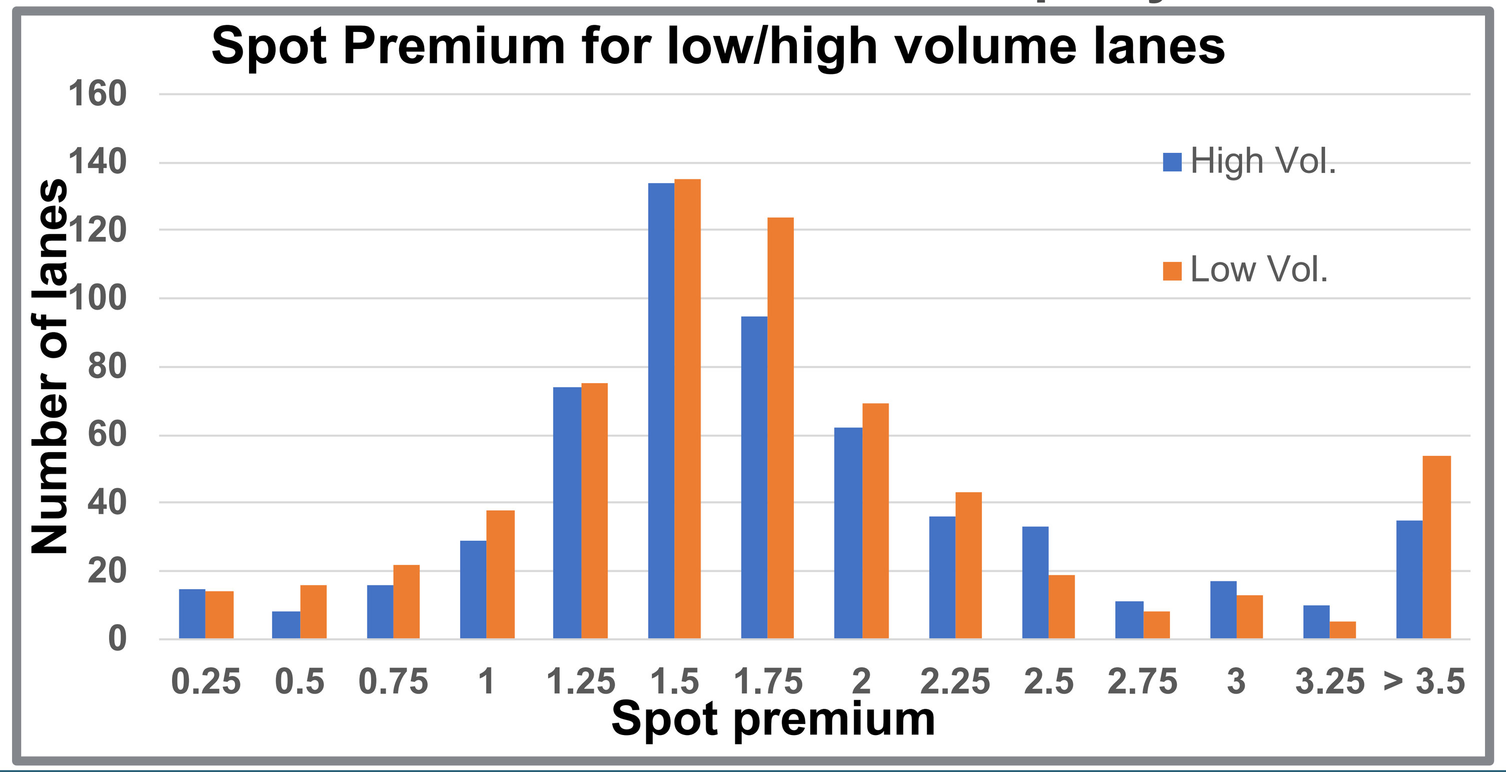


Supervised and unsupervised algorithms

Develop models to estimate optimal lane level index for contract prices.

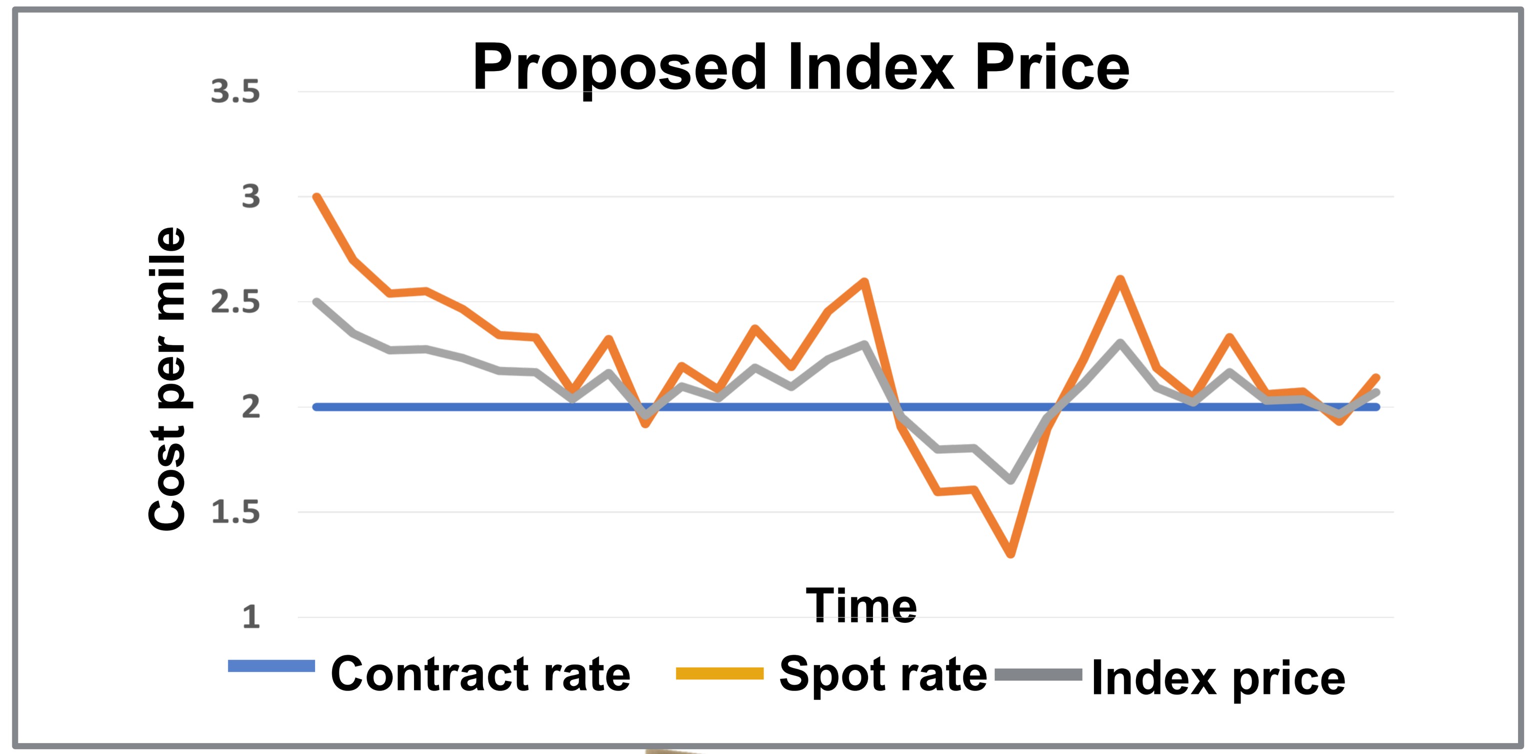
## Initial Results

- **60% higher rates in spot market** vs contract rates for 2016-2018
- Carrier reservations on market index adequacy




## Expected Contribution

- Lane level index price reflecting the market conditions
- Simulation of past tenders to **estimate potential savings**
- Improved relationship between shipper and carriers

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