Laying Down the Law(suits)

Farmer's Insurance Data Challenge 2018

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AGENDA

- Overview
- Modeling Process
- Applications
- Findings and Suggestions
- Recap

INTRODUCTION

Goal: build a model to predict subrogation outcomes

<95>

Total Variables

12%

Missing Observations

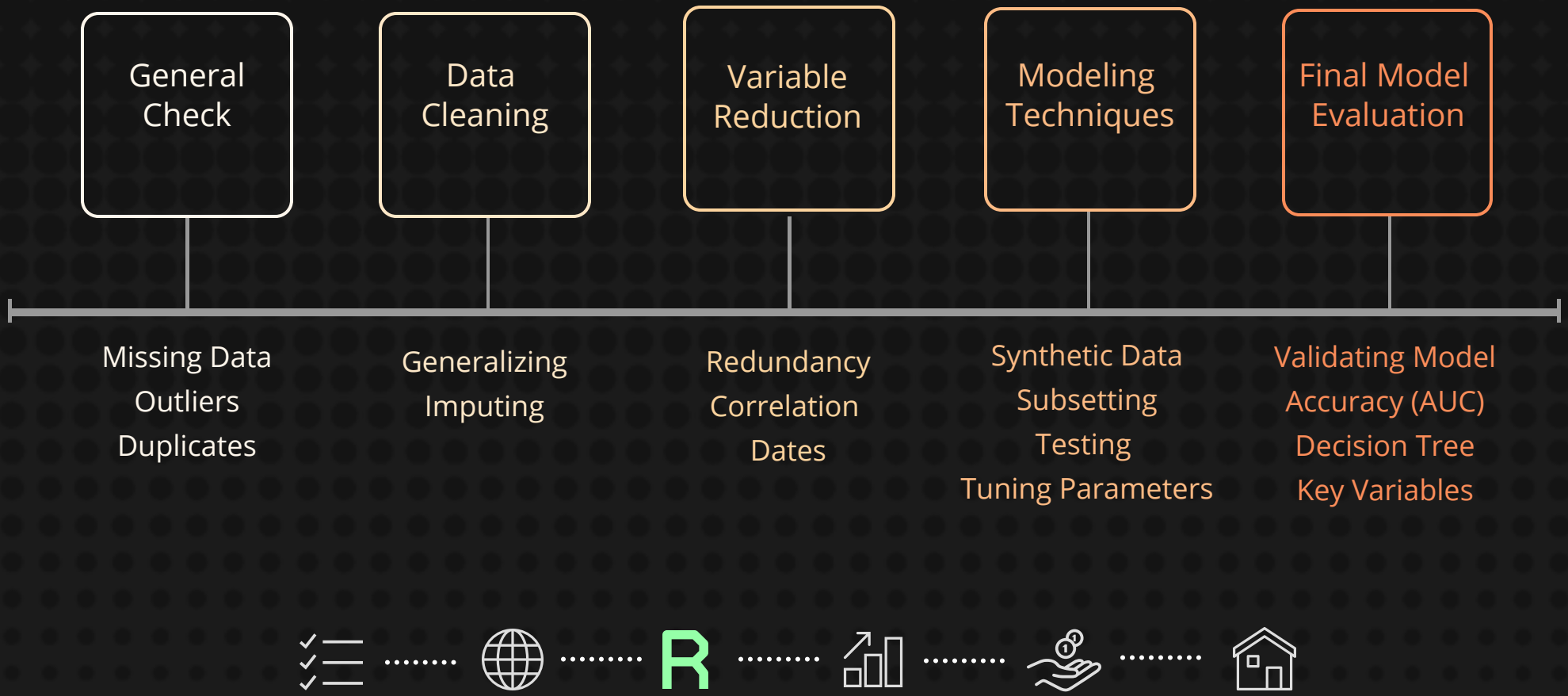
1.27%

Successful Subrogation

93.12%

Accuracy

MODELING PROCESS



AN ASSET IN SUBROGATION

Effectiveness of a predictive model in addressing inefficiencies

Problems:

- 1.27% successful subrogation
- Wasting money, time and resources
- Overlooking potential subrogation

Solution: Predictive Modeling

- Claim selection
- Allocating resources efficently
- Task prioritization

Results:

- More successful subrogation
- Closing cases faster
- Building rapport with customers

SUBROGATION: THE ESSENTIALS

Perseverance and time are crucial in positive-outcome subrogation

Recognition

Recognize potential third party liability.

Vehicle claims: instant recognition.

Evidence

Obtain evidence early. Use model to sort claims.

Vehicle claims: evidence is preserved, witnesses are present.

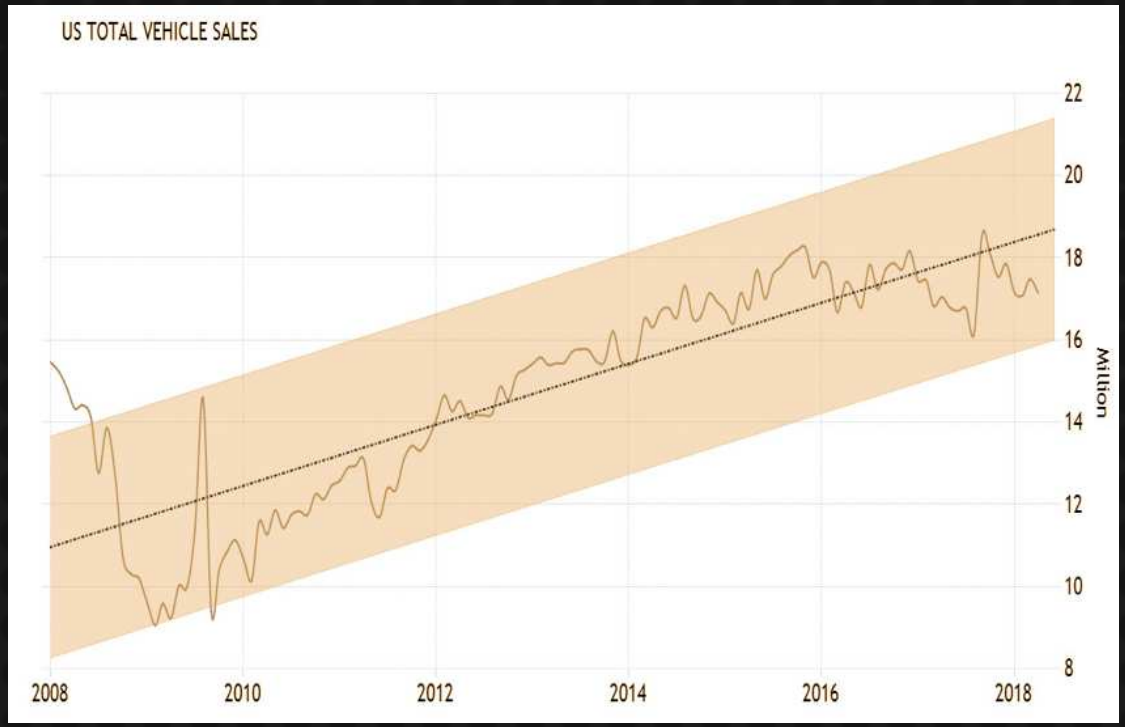
Partnerships

Collaborate with experts to fully pursue subrogation.

Vehicle claims: police investigations.

AUTO INDUSTRY

The future of auto sales in the US



* Autodata Corporation, 2018

Vehicles: Highest chance of successful subrogation out of all claims (16.2%)

Trend: "United States Total Vehicle Sales is projected to trend around 18.70 Million in 2020" (Autodata Corporation, 2018).

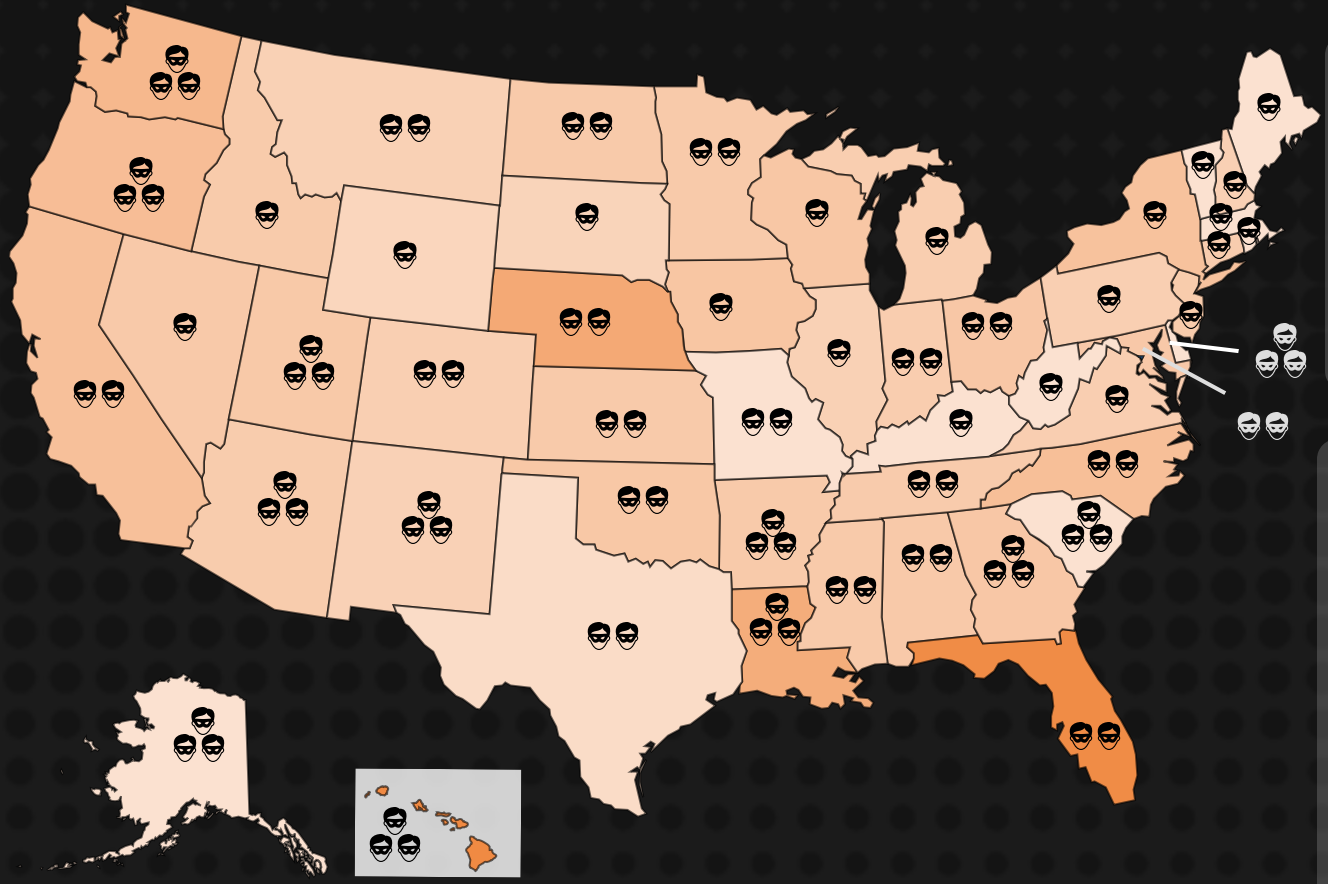
Recommendations:

- Continue subrogation for vehicle claims
- Market auto insurance

Contrast:

- Theft
- Subrogation Essentials

EXPLORING THEFTS ACROSS THE US



Theft: #2 most frequent cause of loss

Overlay:

- Farmer's Theft Claims
- US Theft Statistics, 2016

Interest: discrepancies, consistencies

Theft Claims Proportions

0

.25

.5

US Theft Rates

<1604.27

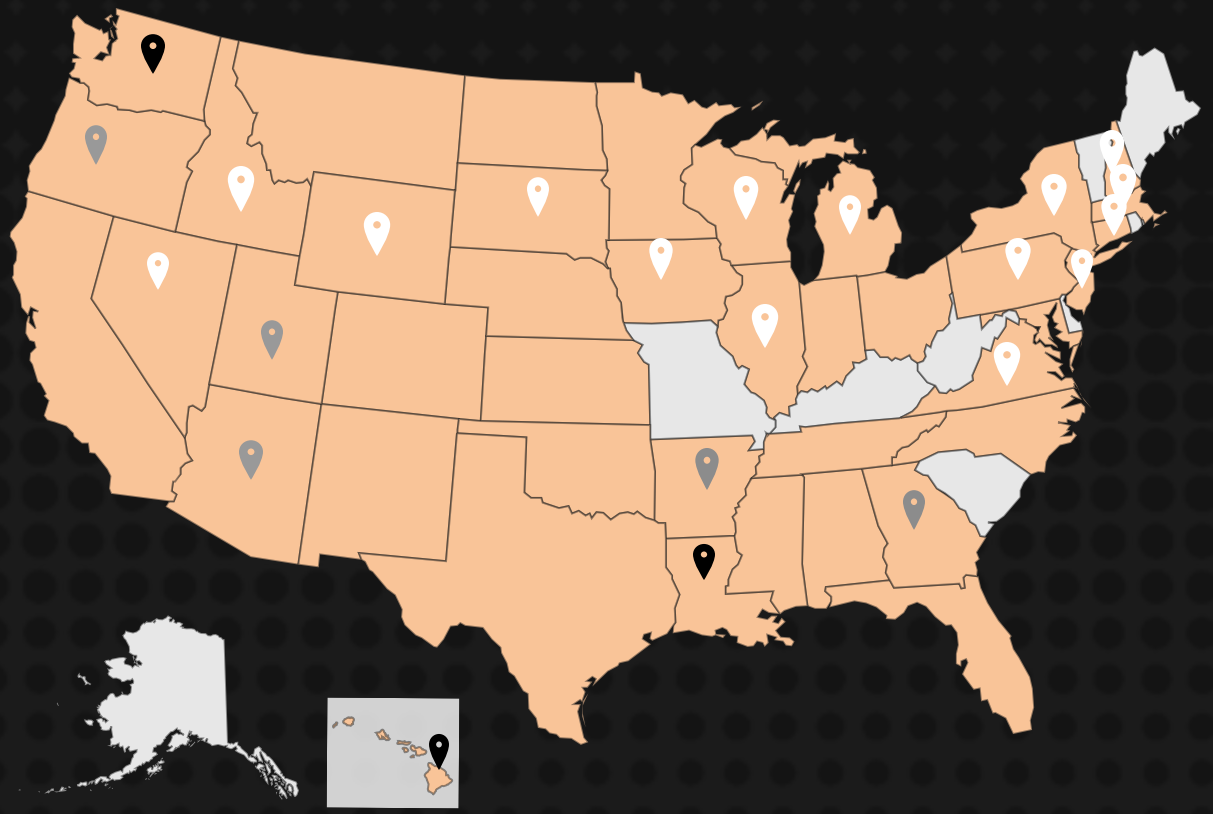
1604.27 - 2073.33

>2073.33

* *Crime in the US,* FBI 2016

HOME SECURITY

A region-based approach to increasing successful subrogation



Problem: High number of claims, low subrogation rate (0.14%)

Solution will vary by state:

- Implement home security programs
- Advertise security
- No action needed

Gray states: less than 30 total claims

- Low reach: Farmer's could expand
- Different culture: Not law-suit happy
- Reluctance: Avoid claims process

IN A NUTSHELL

Efficiency: Use model

Perseverance: Successful subrogation

Maintain: Auto insurance

Reduce Loss: Customer satisfaction

APPENDIX

External Data Sets Used in Plots

Auto Sales Data:
Autodata Corporation. (2016). United States Total Vehicle Sales - Forecast. Retrieved from https://tradingeconomics.com/united-states/total-vehicle-sales/forecast

US Theft Rates, 2016:
Uniform Crime Reporting Program, FBI. (2016). Crime in the United States by State. Retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/tables/table-3/table-3.xls

Additional Information on Subrogation

Degarmo, K. (2016, November 03). Claims Professionals Hold the Key to Successful Subrogation. Retrieved from http://clmmag.theclm.org/home/article/Claims-Professionals-Hold-the-Key-to-Successful-Subrogation

Wickert, G. (2017, July 06). 10 Subrogation Mistakes Insurance Companies Keep Making. Retrieved from https://www.claimsjournal.com/news/national/2017/07/06/279219.htm

Wickert, G. L., & Nelson, S. F. (1995, September). Many insurers overlook advantages of subrogation. Best's Review, 84-85.

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