Transforming Profitability for Florida Homeowners by Predicting Litigation Risk

I. Background

Pinpoint has partnered with a number of homeowners insurance companies that write business primarily in the state of Florida. For the purpose of this case study, we will focus our attention one one carrier who, as part of their growth strategy they acquire existing books of business in the state with the intent to apply their data-driven approach to optimizing and streamlining their delivery of insurance services.

At the time the carrier reached out to Pinpoint, they had acquired a sizable homeowners insurance book of business in the state of Florida and they realized they needed to have a better understanding of the risk profile of this newly acquired book.

Of chief concern was the litigation risk. Over the past several years, the state of Florida has experienced a monumental amount of litigation claims. Current legal provisions make homeowners an easy target to initiate large payouts for inflated claims, which can exceed 6 figures for a single insured. Litigation claims are crippling the Florida homeowners insurance market, making it a challenge to find affordable and available coverage in the regular market, outside of the state's insurer of last resort.

II. Pinpoint Partnership

This carrier wanted to take a more data-driven approach to taking on this new book of business. They engaged Pinpoint to measure individual litigation risk to better understand who in their newly acquired book was most and least likely to file a litigation claim.

They chose Pinpoint because of Pinpoint's repeated successful track record of making the earliest, most accurate predictions to identify who is most likely to litigate.

76% of all homeowners lawsuits in the United States happen in the state of Florida, despite the fact that this state accounts for just 8.2% of homeowners claims made nationwide. This litigation crisis has been the cause of a growing number of companies to cease doing business in the state because of insolvency, liquidation, or simply making a business decision to pull out of the state because their losses due to litigation were unsustainable.

Pinpoint's process is based on assessing the behavioral tendencies of each individual insured. Underlying the Pinpoint predictions are trillions of data points. Pinpoint creates custom models for each insurer, training their deep-learning algorithms for each carrier. By doing so, they create predictions of who has the highest likelihood of initiating litigation claims with a proven, client-validated, level of accuracy.

III. Results

Right at the beginning of the carrier's Proof of Value with Pinpoint, they were pleased with the rapid results and how quickly their custom model was generated. From the time they uploaded their data onto the secure OnPoint Platform, it took less than a day for the resulting model and lift charts to be made available. From here, the carrier was able to spend the bulk of the Proof of Value validating the predictions and projecting year 1 financial impact of imlementation. They also used this time to collaborate with their internal team to evaluate how they would use this information to coordinate decision flow for new business and renewals.

The resulting litigation model created by Pinpoint performed very well. With decile lift of 14x, the highest decile had a 3.6x worse than average litigation risk, and 40% of the book displayed just one-third the average litigation risk and represented substantial potential profitability.

Risk percentile buckets, segmenting validation set
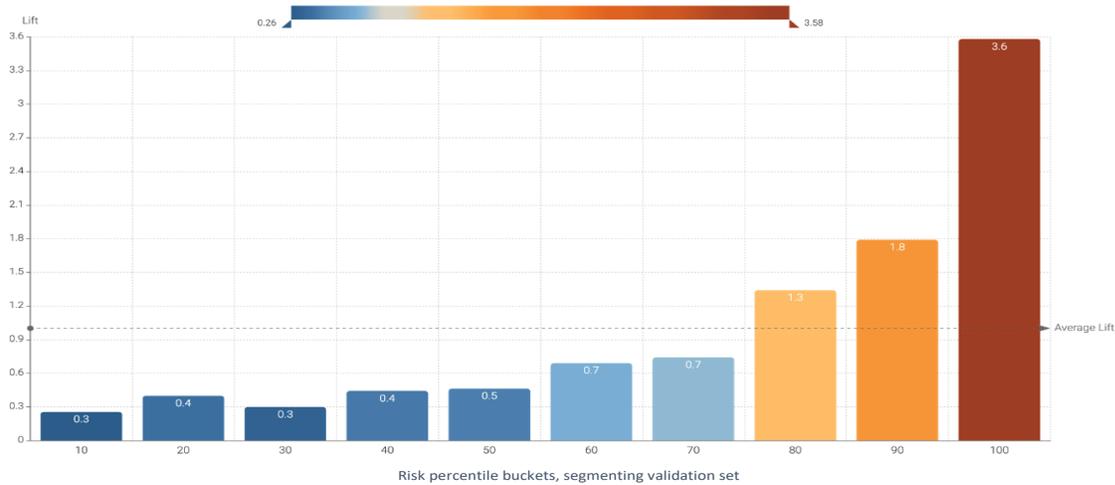
IV. Value Realization

The carrier developed a plan to use Pinpoint's risk scores in their pre-underwriting and pre-renewal decision flow. Together we estimated the impact of incorporating Pinpoint's predictions was in excess of $34 million in year 1.

Model Inputs	Client Enters
Risk Model	Litigation
We have a baseline model	No
Risk cost + LAE per year	$393,684,000
Policies in Force	98,421
Average yearly premium	$3,212
Yearly cancellation rate	8%
Carrier non-renewal rate	3%
Acquisition rate	8%
Net growth rate	(3)%
Baseline Px less risk cost	$(75,229,076)
Pinpoint Px less risk cost	$(40,965,222)
Yearly Client Savings	$34,263,853

In years 2-3 (and beyond) the carrier will continue to increase profitability with the ability to:

» Continue to shift the risk mix of the overall book by replacing higher risk business with lower risk new business

» Optimize new business acquisitions based on risk profiles

» Build additional models to predict additional risk and individual loss ratios, using the automated OnPpoint platform

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