



# Next-generation predictive modeling

Delivering enriched claims experiences



**Liberty Mutual**  
INSURANCE

At Liberty Mutual, yesterday's best is never enough. We always push for better. Especially when it comes to claims.

By harvesting a world of data, enhancing predictive models, and leveraging human understanding and empathy, we've taken claims management to an entirely new level to improve every step of the claims journey.

Liberty's exceptional claims service depends first and foremost upon exceptionally talented and committed people. Analytical modeling augments their expertise, enabling them to focus wholeheartedly on the people involved in the claim.

**Welcome to next generation predictive modeling.**

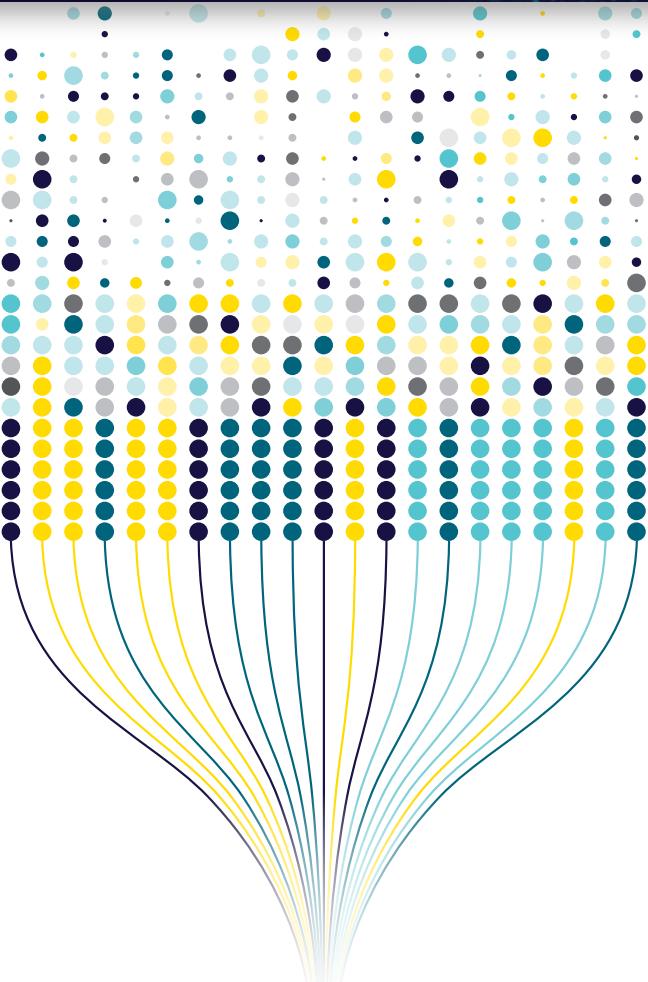


## Turning volume into value

Building upon the knowledge we've acquired from more than 5 million claims and 200 million data points, we're able to turn vast volume of data into better understanding and decision making. Our enhanced models provide our claims experts with new levels of information and guidance that enable smart, fast, customized claims management.

Our commitment to combining the art and science of the claim journey improves resolutions, reduces time and cost, and provides better experiences.

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## Drawing insight from unstructured data

True to the spirit of leaving no stone unturned, technology and modeling enable us to scour original sources of unstructured data — imagery, notes, calls, records, and reports — and compile it into meaningful information that is easily searchable down to a granular level. Through this full-picture analysis, we can recognize predictive patterns with greater accuracy than ever before, delivering cutting-edge assessment capability.

By developing enhanced predictive models for specific claims scenarios, we are turning previously overlooked volumes of data into unprecedented value.





## Next-generation models that improve outcomes

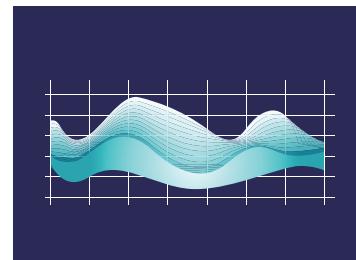
At Liberty, we've built significant in-house capability in data science and analytics, enabling us to use natural language processing and artificial intelligence to interpret records, assess risks, and devise industry-leading predictive models.

To stay on the industry's leading-edge, we also recognize the benefits of collaboration.

### Case in point

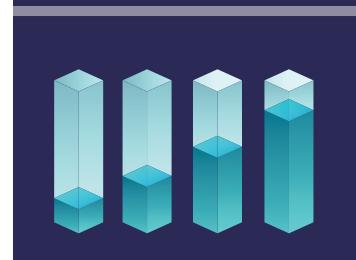
Our **\$25M partnership with MIT** underscores our commitment to provide continuous improvement in every aspect of claims management.

These models aren't just theoretical — they're a hands-on way to deliver consistently better claims decisions, as these highlights can attest:



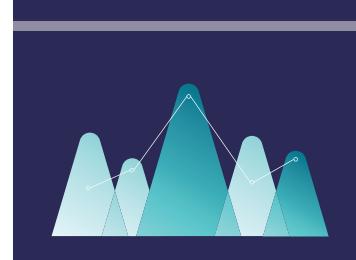
### Early Severity Model

Doubled identification of high-risk (>\$100k) claims by day 30



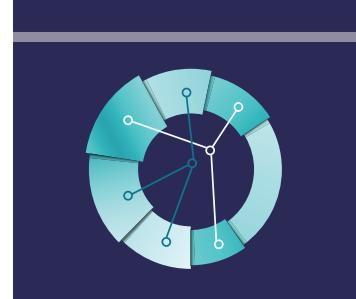
### Subrogation Model

Increased annual recoveries 4x without increasing cycle time or expense



### Fraud Model

Implemented automated fraud model that's 20x better at identifying fraud than random chance



### Compensability Model

Before an initial decision has been made, predicts claims that may have compensability issues. Controverted rate for alerted claims is 60%.



### Dual Strategy Model

Encouraging specialists to consider varied paths at a claim's outset, this model allowed for a \$20k reserve reduction for one claim.



Liberty is here for you.  
**Today. Tomorrow.  
Together.**



## How best-in-class claims service gets better

Progress is fuelled by a dedication, passion, and commitment to never settle for less. Today, we're building upon our legacy of innovation by using advanced tools to segment claims based on their complexity and criticality.

Enhancing decision making, creating more accurate and useful predictive models, and delivering better risk management outcomes define our ongoing mission.

But beyond our pledge to provide an extraordinary claims experience that's attuned to your needs, we never lose sight of the fact that people, their lives and livelihoods, are at the heart of what we do.

This document provides a general description of this program and/or service. Our risk control services are advisory only. We assume no responsibility for management or control of customer safety activities nor implementation of recommended corrective measures. Not all insurance coverages or products are available in all states or regions and policy terms may vary based on individual state or region requirements. See your policy, service contract, or program documentation for actual terms and conditions. Some policies may be placed with a surplus lines insurer. Surplus lines insurers generally do not participate in state guaranty funds and coverage may only be obtained through duly licensed surplus lines brokers. Insurance is underwritten by Liberty Mutual Insurance Company or its affiliates or subsidiaries.