Seven years ago, Allstate Corporation told Maryland regulators it was time to update its auto insurance rates. The insurer said its new, sophisticated risk analysis showed it was charging nearly all of its 93,000 Maryland customers outdated premiums.

Some of the old rates were off by miles, as in the case of a 36-year-old man from Prince George's County, Md., who Allstate said in public records should have been paying $3,750 every six months but was instead being charged twice that, more than $7,500. Other customers were paying hundreds or thousands of dollars less than they should have been, based on Allstate's new calculation of the risk that they would file a claim.

Rather than apply the new rates all at once, Allstate asked the Maryland Insurance Administration for permission to run each policy through an advanced algorithm containing dozens of variables that would adjust it in the general direction of the new risk model. Allstate said the goal of this new customer "retention model," which it was rolling out across the country, was to limit policy cancellations from sticker shock.

After questions from regulators, the insurer submitted thousands of pages of documentation on the price changes—including data showing how the changes would affect each individual customer, a rare public window revealing details of its auto insurance pricing that have otherwise been kept behind a wall of privacy, labeled a trade secret.

When The Markup and Consumer Reports conducted a statistical analysis of the Maryland documents, we found that, despite the purported complexity of Allstate's price-adjustment algorithm, it was actually simple: It resulted in a suckers list of Maryland customers who were big spenders and would squeeze more money out of them than others.

Customers who were already paying the highest premiums, more than $1,983 every six months, and were due an increase would have borne price hikes of up to 20 percent. But drivers with cheaper policies who deserved price jumps that were just as big would only be charged a maximum increase of 5 percent. Middle-aged customers were most likely to be in the 20 percent increase group.

We also found that Allstate's algorithm would have denied meaningful decreases to thousands of Allstate customers who the company's new risk profile showed were paying too much. That 36-year-old from Prince George's County would not have saved $3,500 on his policy as he deserved, documents show, but rather gotten a measly

discount of $26. Decreases were capped at half a percent across the board.

Maryland ultimately rejected the plan, calling it discriminatory, and it never went into effect there. However, the insurer has continued to propose plans with a customer "retention model" in other states.

Allstate declined to answer any of our detailed questions and did not raise any specific issues with our statistical analysis, which we provided the company in detail in November, including the code used to calculate our findings.

"Our rating plans comply with all state laws and regulations," read a short statement emailed by spokeswoman Shaundra Turner Jones. The Maryland proposal, the statement said, aimed to "minimize customer disruption and provide competitive prices."

In a later email, she added that our reporting on the Maryland filing "is inaccurate and misleading" because it is "based on a rating plan that was never used."

customers who were owed discounts but would not have gotten them. Allstate proposed giving Maryland customers over the age of 62 a median discount of $1.64, far less than many deserved, according to its new risk calculations.

The lost discounts to Allstate's Maryland customers would have added up to more than $10.5 million in the first six months alone.

"That they wouldn't have gotten these discounts would have been devastating," said Deni Taveras, a council member in Prince George's County, where Allstate determined policyholders who were owed discounts were being overcharged by $265, on average, but proposed dropping their rates by pennies, an average discount of $2.63.

"My district is highly dependent on social services, pensions, and food pantries," she said. Those hundreds of dollars would have been "huge," a boon that "would have covered meals, it would have covered bills."

Had Maryland approved the proposal, it would not have required Allstate to inform its customers that they had been deprived of discounts.

Besides Maryland, some other states have also signaled that they would not accept similar plans from Allstate. Georgia rejected Allstate's proposal just last year. Utah and Colorado said in emails that they made the insurer get rid of the retention models in their states.

But at least 10 states have approved Allstate plans where public records mention using a customer retention model: Arizona, Arkansas, Illinois, Iowa, Michigan, Missouri, Nebraska, Oklahoma, Tennessee, and Wisconsin.

Allstate wouldn't tell us whether those work exactly the same way as the Maryland proposal, and it's impossible to know from the outside. The Markup and Consumer Reports reviewed public records for hundreds of Allstate filings, and only the Maryland filing contained the granular customer data necessary for this analysis, because regulators there asked for more information than the insurer originally provided.

ALLSTATE'S MARYLAND FILING reveals how an opaque algorithm it has been proposing around the country would have functioned in practice. It also offers a glimpse into a potential future where companies of all sorts, not just auto insurers, charge people different prices based on their behavior—or expected willingness to pay, as projected by algorithms that draw on the seemingly limitless troves of data collected and sold about people every day.

Allstate's model seemed to determine how much a customer was willing to pay—or overpay—without defecting, based on how much he or she was already forking out for car insurance. And the harm would not have been equally distributed.

In Maryland, seniors were overrepresented among those

COUNCIL MEMBER DENI TAVERAS OF PRINCE GEORGE'S COUNTY, MD.

PHOTO: GREG KAHN