ProPublica

Technology

Rent Going Up? One Company's Algorithm Could Be Why.

by Heather Vogell, ProPublica, with data analysis by Haru Coryne, ProPublica, and Ryan Little

Oct. 15, 2022, 5 a.m. EDT

Texas-based RealPage's YieldStar software helps landlords set prices for apartments across the U.S. With rents soaring, critics are concerned that the company's proprietary algorithm is hurting competition.

Animation by Lisa Larson-Walker/ProPublica

On a summer day last year, a group of real estate tech executives gathered at a conference hall in Nashville to boast about one of their company's signature products: software that uses a mysterious algorithm to help landlords push the highest possible rents on tenants.

"Never before have we seen these numbers," said Jay Parsons, a vice president of RealPage, as conventiongoers wandered by. Apartment rents had recently shot up by as much as 14.5%, he said in a video touting the company's services. Turning to his colleague, Parsons asked: What role had the software played?

"I think it's driving it, quite honestly," answered Andrew Bowen, another RealPage executive. "As a property manager, very few of us would be willing to actually raise rents double digits within a single month by doing it manually."

The celebratory remarks were more than swagger. For years, RealPage has sold software that uses data analytics to suggest daily prices for open units. Property managers across the United States have gushed about how the company's algorithm boosts profits.

"The beauty of YieldStar is that it pushes you to go places that you wouldn't have gone if you weren't using it," said Kortney Balas, director of revenue management at JVM Realty, referring to RealPage's software in a testimonial video on the company's website.

The nation's largest property management firm, Greystar, found that even in one downturn, its buildings using YieldStar "outperformed their markets by 4.8%," a significant premium above competitors, RealPage said in materials on its website. Greystar uses RealPage's software to price tens of thousands of apartments.

RealPage became the nation's dominant provider of such rent-setting software after federal regulators approved a controversial merger in 2017, a ProPublica investigation found, greatly expanding the company's influence over apartment prices. The move helped the Texas-based company push the client base for its array of real estate tech services past 31,700 customers.

The impact is stark in some markets.

In one neighborhood in Seattle, ProPublica found, 70% of apartments were overseen by just 10 property managers, every single one of which used pricing software sold by RealPage.

To arrive at a recommended rent, the software deploys an algorithm — a set of mathematical rules — to analyze a trove of data RealPage gathers from clients, including private information on what nearby competitors charge.

For tenants, the system upends the practice of negotiating with apartment building staff. RealPage discourages bargaining with renters and has even recommended that landlords in some cases accept a lower occupancy rate in order to raise rents and make more money.

One of the algorithm's developers told ProPublica that leasing agents had "too much empathy" compared to computer generated pricing.

Apartment managers can reject the software's suggestions, but as many as 90% are adopted, according to former RealPage employees.

The software's design and growing reach have raised questions among real estate and legal experts about whether RealPage has birthed a new kind of cartel that allows the nation's largest landlords to indirectly coordinate pricing, potentially in violation of federal law.

Experts say RealPage and its clients invite scrutiny from antitrust enforcers for several reasons, including their use of private data on what competitors charge in rent. In particular, RealPage's creation of work groups that meet privately and include landlords who are otherwise rivals could be a red flag of potential collusion, a former federal prosecutor said.

At a minimum, critics said, the software's algorithm may be artificially inflating rents and stifling competition.

"Machines quickly learn the only way to win is to push prices above competitive levels," said University of Tennessee law professor Maurice Stucke, a former prosecutor in the Justice Department's antitrust division.

RealPage acknowledged that it feeds its clients' internal rent data into its pricing software, giving landlords an aggregated, anonymous look at what their competitors nearby are charging.

A company representative said in an email that RealPage "uses aggregated market data from a variety of sources in a legally compliant manner."

The company noted that landlords who use employees to manually set prices "typically" conduct phone surveys to check competitors' rents, which the company says could result in anti-competitive behavior.

"RealPage's revenue management solutions prioritize a property's own internal supply/demand dynamics over external factors such as competitors' rents," a company statement said, "and therefore help eliminate the risk of collusion that could occur with manual pricing."

The statement said RealPage's software also helps prevent rents from reaching unaffordable levels because it detects drops in demand, like those that happen seasonally, and can respond to them by lowering rents.

RealPage did not make Parsons, Bowen or the company's current CEO, Dana Jones, available for interviews. Balas and a Greystar representative declined to comment on the record about YieldStar. The National Multifamily Housing Council, an industry group, also declined to comment.

Proponents say the software is not distorting the market. RealPage's CEO told investors five years ago that the company wouldn't be big enough to harm competition even after the merger. The CEO of one of YieldStar's earliest users, Ric Campo of Camden Property Trust, told ProPublica that the apartment market in his company's home city alone is so big and diverse that "it would be hard to argue there was some kind of price fixing."

What role RealPage's software has played in soaring rents — which in the decade before the pandemic nearly doubled in some cities — is hard to discern. Inadequate new construction and the tight market for homebuyers have exacerbated an existing housing shortage.

But by RealPage's own admission, its algorithm is helping drive rents higher.

"Find out how YieldStar can help you outperform the market 3% to 7%," RealPage urges potential clients on its website.

Few tenants know that such software, owned by a privately held company, has had a hand in rent increases across the country.

In Boston, renter Kaylee Hutchinson said she was puzzled when her landlord — unbeknownst to her, a RealPage client — told her days into the first pandemic lockdowns that her rent was going up. Building staff insisted that the market rate for her apartment was 6.5% higher than she was paying, despite her protests that people were fleeing the city.

Kaylee Hutchinson's landlord, who uses RealPage's pricing software, told her rent was going up at the start of the pandemic even as many people were fleeing the city. Philip Keith, special to ProPublica

A few weeks later, she and her fiancé saw a newly vacant unit in their building advertised online for less. One of their landlord's policies permitted moving to another unit owned by the company, so they did.

Hutchinson, who is an analyst for the police department, wondered if a computer algorithm was behind building staff's inflexibility. "It was pretty obvious they should have been dropping prices," she said. "They were digging their heels in."

Hutchinson said she watched apartments in her building sit vacant at prices that didn't make sense to her.

"A normal mom-and-pop landlord, they're worried about having a good tenant and protecting their interest in the agreement," Hutchinson said. "These companies, they'll just replace you."

The Origins of YieldStar

One of YieldStar's main architects was a business executive who had personal experience with an antitrust prosecution.

A genial, self-described "numbers nerd," Jeffrey Roper was Alaska Airlines' director of revenue management when it and other major airlines began developing price-setting software in the 1980s.

Competing airlines began using common software to share planned routes and prices with each other before they became public. The technology helped head off price wars that would have lowered ticket prices, the Department of Justice said.

The department said the arrangement may have artificially inflated airfares, estimating the cost to consumers at more than a billion dollars between 1988 and 1992. The government eventually reached settlements or consent decrees for price fixing with eight airlines, including Alaska Airlines, all of which agreed to change how they used the technology.

At one point, federal agents removed a computer and documents from Roper's office at the airline. He said he and other creators of the software weren't aware of the antitrust implications. "We all got called up before the Department of Justice in the early 1980s because we were colluding," he said. "We had no idea."

When Roper returned to the United States in the early 2000s after a stint in central and eastern Europe, he said, he discovered the apartment rental industry was so far behind technologically that it resembled the emerging markets he'd just left.

Apartment managers were "basically pricing their product on a paper napkin," said Roper, who eventually formed his own company.

Old computers and manual recordkeeping were mainstays of the industry. Leasing agents gauged how their buildings compared by calling up competitors. "This was just a ripe business," with lots of money and lots of opportunities for technological improvement, Roper said.

RealPage hired Roper as its principal scientist in 2004 to improve software it had bought from Camden Property Trust, a large investor-backed owner and manager of apartment buildings.

Roper quickly realized he required data — a lot of data — to get the algorithm working properly. He began building a "master data warehouse" that pulled in client data from other RealPage applications, such as those for leasing managers.

A proof-of-concept version of the software had performed well in tests at townhouses Camden offered for rent in its home city of Houston.

At the time, the street behind Camden's townhouses was shut down while a grocery store was being built. Leasing staff wanted to discount rent for the townhouses because of the nuisance, said Kip Zacharias, who worked with Camden as a consultant.

Instead, YieldStar suggested boosting rents. "We were like, 'Guys, just try it,'" Zacharias said.

The units ended up renting for significantly more than staff had expected, he said. "That was kind of the eureka moment," Zacharias said. "If you'd listened to your gut, you would have lowered your price."

The practice of lowering rent to fill a vacancy was a reflex for many in the apartment industry. Letting units sit empty could be costly and nerve-wracking for leasing agents.

Such agents sometimes hesitated to push rents higher. Roper said they were often peers of the people they were renting to. "We said there's way too much empathy going on here," he said. "This is one of the reasons we wanted to get pricing off-site."

Unimpeded by human worries, YieldStar's price increases sometimes led to more tenants leaving.

Camden's turnover rates increased about 15 percentage points in 2006 after it implemented YieldStar, Campo, the company's CEO, told a trade publication a few years later. But that wasn't a problem for the firm: Despite having to replace more renters, its revenue grew by 7.4%.

"The net effect of driving revenue and pushing people out was $10 million in income," Campo said. "I think that shows keeping the heads in the beds above all else is not always the best strategy."

(Reminded of that quote, Campo told ProPublica it "sounds awful" and doesn't reflect how he or Camden views renters today. "We fundamentally believe our customers are the most important part of our business," he said. "We're not about pushing people out.")

Hiking rents at the same time benefited all landlords, the industry learned. "A rising tide lifts all boats," one real estate executive and revenue management proponent told the industry publication Yield Pro in 2007.

One of the greatest threats to a landlord's profit, according to Roper and other executives, was other firms setting rents too low at nearby properties. "If you have idiots undervaluing, it costs the whole system," Roper said.

Jeffrey Roper helped develop YieldStar, which uses an algorithm to suggest prices for apartments across the country. Shelby Tauber for ProPublica

Roper wasn't the only technologist working on an apartment pricing algorithm. Donald Davidoff, the primary developer of rival software called Lease Rent Options, or LRO, said he designed his program differently, to head off any concerns about collusion.

Instead of relying on a digital warehouse that includes competitor data, Davidoff used a complex formula and public market data to steer LRO's algorithm. The system relied on incremental price shifts to manage demand for apartments, said Davidoff, an MIT-educated former rocket engineer. "That's not dissimilar to changing a trajectory of a rocket through inflection of a nozzle," he said — making small changes that can dramatically alter something's course over time.

Davidoff said he was careful to avoid features that might run counter not only to anti-discrimination laws, such as the Fair Housing Act, but also those that bar competitors from conspiring to set prices.

"I had many conversations with attorneys to understand where the boundaries are," he said. "Anybody who's building one of these systems or is involved in these should care a lot about fair housing and should care a lot about price collusion to avoid both."

Roper told ProPublica that when he was developing the YieldStar software more than a decade ago, he was concerned about avoiding both issues. He also said he didn't want to misuse private data in pricing.

"I was highly sensitized to: You just don't do it," Roper said.

Despite differences in the software's design, RealPage acquired LRO in 2017 after months of scrutiny by the antitrust division of the justice department. Federal regulators review mergers above a certain size — right now, it is transactions valued at $101 million — and typically allow them to proceed after only a preliminary review. But some are flagged for a more extensive look. The government can challenge a merger in court if it believes it could substantially harm competition.

RealPage's purchase of LRO received such a second look, but the DOJ allowed it to proceed in late 2017. The department did not respond to requests for comment.

The approval allowed RealPage to acquire its only significant competitor, Roper said, adding, "I was surprised the DOJ let that go through."

RealPage was pricing 1.5 million units, and the acquisition of LRO would double that, Steve Winn, RealPage's then-CEO, said at a mid-2017 investor conference. "I don't think there's any concentration, enough concentration, of buying or pricing power here" to warrant DOJ concerns, he said. A third company had a substantial footprint in the market, Winn said, but property managers' own manual pricing processes or proprietary systems were RealPage's largest competitor.

"We expect our combined platform to drive accelerated, sustained revenue growth," Winn said in a media release announcing the deal.

RealPage's influence was burgeoning. That year, the firm's target market — multifamily buildings with five or more units — made up about 19 million of the nation's 45 million rental units. A growing share of those buildings were owned by firms backed by Wall Street investors, who were among the most eager adopters of pricing software.

RealPage renamed its combined pricing software AI Revenue Management. By the end of 2020, the firm was reporting in a Securities and Exchange Commission filing that its clients used its services and products to manage 19.7 million rental units of all types, including single-family homes. The private equity firm Thoma Bravo bought the public company a few months later for $10.2 billion.

Winn, whose net worth Forbes estimates at $1.7 billion, stepped aside. He did not respond to requests for comment.

A spokesperson for Thoma Bravo declined to comment.

Who Uses the Software and How It Works

Somewhere around 2016, according to one trade group, the industry's use of the pricing software began to achieve "critical mass."

The more property managers who sign on to RealPage services, the more data flows into the company's repository. That in turn aids its pricing service, which the company says "leverages multifamily's largest lease transaction database."

RealPage's clients include some of the largest property managers in the country. Many favor cities where rent has been rising rapidly, according to a ProPublica analysis of five of the country's top 10 property managers as of 2020. All five use RealPage pricing software in at least some buildings, and together they control thousands of apartments in metro areas such as Denver, Nashville, Atlanta and Seattle, where rents for a typical two-bedroom apartment rose 30% or more between 2014 and 2019.

Greystar and FPI Management each control hundreds of buildings in metro areas where rents have risen steeply in recent years. And Equity Residential, Lincoln Property Company and Mid-America Apartment Communities each manage dozens of buildings in high-growth markets.

In contrast, these same companies control fewer buildings in metro areas such as Philadelphia, Tampa and Chicago, where rents have increased more slowly, the analysis found.

Many factors may cause RealPage clients to cluster in high rent-growth markets. The company's clients may gravitate toward such markets because those areas will bear more rent hikes and so offer an opportunity to make more money, for instance. But RealPage says its software steers pricing that beats the market in areas where it operates.

RealPage's algorithm calculates how demand for apartments responds to changes in price — what's known as price elasticity.

The algorithm takes into account characteristics of apartments, like the number of bedrooms. It also considers factors such as how many more of a complex's apartments are likely to become available in the near future. Property managers can adjust settings according to their priorities — such as how full they want their buildings to be.

The software also analyzes rent prices in the broader market, the company said. That data can provide insight into how competitors' buildings located near the client — such as within, say, a half-mile or mile radius — are being priced, said Ryan Kimura, a former RealPage executive.

One advantage RealPage's data warehouse had was its access to actual lease transactions — giving it the true rents paid, instead of simply those a landlord advertised, RealPage said.

Property managers can't look at the unpublished data any one rival is sharing with YieldStar, Roper and other former RealPage employees said.

Nicole Lott said that when the building where she worked as a property manager near Dallas started using YieldStar, the software determined that similar buildings in the area were charging more. It pushed for steep increases.

"It really jumped rates up," Lott said. "Leasing slowed down to a crawl."

She and other staff challenged the software, asking the division of her company that oversaw YieldStar for a review, she said. The landlord ended up raising rates more gradually, she said.

"We didn't think we could get those rates," she said. "In some cases we were right and in some cases we might have been wrong."

Kimura, a former RealPage executive who worked at the firm for three years before leaving in 2021, said the company would typically see pushback from property staff on about 10%-20% of the software's recommendations. It was part of the process. "If they are approving every rate and it's 100% acceptance," he said, "they basically have a blindfold on and are pushing a button."

RealPage claims its software will increase revenue and decrease vacancies. But at times the company has appeared to urge apartment owners and managers to reduce supply while increasing price.

During an earnings call in 2017, Winn said one large property company, which managed more than 40,000 units, learned it could make more profit by operating at a lower occupancy level that "would have made management uncomfortable before," he said.

The company had been seeking occupancy levels of 97% or 98% in markets where it was a leader, Winn said. But when it began using YieldStar, managers saw that raising rents and leaving some apartments vacant made more money.

"Initially, it was very hard for executives to accept that they could operate at 94% or 96% and achieve a higher NOI by increasing rents," Winn said on the call, referring to net operating income. The company "began utilizing RealPage to operate at 95%, while seeing revenue increases of 3% to 4%."

But the software's supporters say it's not driving the nation's housing affordability problem.

Though soaring rent is giving the industry a "black eye," Campo said, the culprit is a lot of demand and not enough supply — not revenue management software. The software just helps managers react to trends faster, he said.

"Would you rather do your work today on a typewriter or a computer?" he asked. "That's what revenue management is."

Using software like YieldStar is "taking what we used to do manually on a yellow pad and calling people on the phone and putting it on a codified system where you take the errors out of the pricing," he said.

RealPage, Seattle and Rising Rents

To see how rent-setting software can make a difference, look no further than Seattle, where over the last few years rents have risen faster than almost anywhere in the country, some studies show.

Large apartment buildings in one ZIP code just north of downtown, sandwiched between the Space Needle and Pike Place Market, are overwhelmingly controlled by RealPage clients, ProPublica found.

The trendy Belltown neighborhood, with its live music venues and residential towers, had 9,066 market rate apartments in buildings with five or more units as of June, according to the data firm CoStar and Apartments.com. Property management was highly concentrated: The ZIP code's 10 biggest management firms ran 70% of units, data showed.

All 10 used RealPage's pricing software in at least some of their buildings, according to employees, press releases and articles in trade publications.

Expensive markets with high rents, like Seattle, tend to have "very high" rates of revenue management use by landlords, Roper said.

Two buildings in the ZIP code — one with revenue management software and the other without — reveal diverging approaches to pricing apartments.

The Fountain Court apartments, 320 units clustered around a courtyard with a fountain, are about a half-mile from Amazon's corporate headquarters. The building is owned and managed by Essex Property Trust, whose executives told investors in a 2008 earnings call that they were implementing YieldStar in the trust's apartment buildings.

At the Fountain Court, rent has risen 42% since 2012, CoStar data shows — steeper than the 33% average increase for similar downtown buildings.

Tenant Amanda Tolep and her husband were approaching the end of their lease for a one-bedroom at the six-story building near the end of 2021 when they learned rent would jump about $400, to $1,600. The increase amounted to 33% — in one year.

Tolep had been working as a barista and launching her own nutrition-related business. Her husband worked for a bank. They expected their rent to go up, knowing they had received a "COVID deal." But the size of the jump, along with other nuisances — like stolen packages and noise from a nearby fire station — led them to look elsewhere.

After finding prices similar to their raised rent at several other neighborhood buildings, the couple decided to leave the city and move a half-hour's drive north.

A spokesperson for Essex declined to comment. None of the other biggest property managers commented on the record about their use of revenue management.

About six blocks away, rent has not gone up as dramatically at The Humphrey Apartments, a historic six-story brick building with 74 units.

John Stepan's rent stayed relatively steady in a building that did not use RealPage's pricing software. Jovelle Tamayo for ProPublica

John Stepan, a writer for a tech company, moved into a studio in the 1923 building a little more than a year ago. It was small, but he liked the high ceilings, hardwood floors and farmhouse-style kitchen. He had secured a COVID deal, too: one month free, with rent of $1,295 a month after that.

A few months before his lease was up, the building notified him that rent would increase by $50, which amounted to about a 3.9% rise. "It was surprisingly low," said Stepan, who left only because he found a condo to buy nearby.

Tami Drougas, the asset manager who oversees The Humphrey and two other Seattle-area buildings for the local real estate developer who owns them, said she doesn't use a revenue management system.

"I don't believe in them," she said. "That's great and fine for larger corporations. But I think it takes the humanity out of what we do."

After 24 years in the industry, she said, she sees good relationships with tenants and vendors as the key to running a building successfully. She said The Humphrey has low costs related to vacancies.

The building's rent has barely budged in recent years, she acknowledged. "We have a lot less turnover and I feel like that keeps expenses down," Drougas said.

Seattle has been hit particularly hard by soaring rents. One report found the city had the steepest rent growth of any major city in the nation over the decade ending in 2019. Almost 46,000 Seattle households were spending more than half their incomes on housing, making them what federal standards call "severely cost-burdened," according to a 2021 study the city commissioned. Many families have trouble paying for necessities like food and medical care when their rent eats up 30% or more of their income.

"Many others have been priced out of Seattle altogether due to rapidly rising rents and housing prices," the study said.

It also found that people with higher incomes often "down rented," choosing cheaper apartments that would otherwise have been available to people making less. Seattle should have had a surplus of 9,000 apartments affordable to people making 80% or less of the median income, the study found. But tenants' down renting as prices rose turned that surplus into a deficit of 21,000.

As the availability of apartments has shrunk, so has the choice of landlords. The startling concentration of property management in Belltown mirrors a national trend.

The number of apartments controlled by the country's 50 largest property managers has grown every year for 14 years, according to the National Multifamily Housing Council, which surveys buildings with five or more units.

Those firms oversaw about 1 in 6 such apartments nationwide in 2019, amounting to 3.6 million units. By 2021, the number had risen to almost 4.2 million.

James Nelson, a former bank examiner and loan broker, noticed the concentration of landlords when he and his partner moved to Seattle in 2018.

Troubled by astronomical home sale prices and high rents, Nelson began looking at what was happening in the broader market.

After some digging, he found that many if not most of the bigger apartment managers in Seattle appeared to be using price-setting software. "The name RealPage kept popping up," said Nelson, who is retired and writing a book on his research. "I went in and looked at the technologies that they were using."

He concluded the landlords were using tech to do exactly what RealPage advertised it could do — help them charge high rents and beat the market.

"There is no competition," he said.

Concerns About Competition

RealPage's software has gained traction at a time when the Biden administration, concerned about rising prices and corporate concentration, is looking to bolster enforcement of rules meant to ensure competition is flourishing.

To win cases, antitrust prosecutors have traditionally needed to show that competitors agreed among themselves to tamper with pricing. "If competitors agreed among themselves to use the same algorithm and to share information among themselves with the purpose of stabilizing pricing, that would be per se illegal," said Stucke, the former antitrust prosecutor.

If they simply shared information without agreeing to manipulate pricing, the question of whether antitrust law was violated would be more complex, he said. Stucke said he knew of no cases where companies had been prosecuted for what's known as tacit collusion while using the same algorithm to set prices.

But Maureen K. Ohlhausen, who was then the acting chair of the Federal Trade Commission, said in a 2017 talk that it could be problematic if a group of competitors all used the same outside firm's algorithm to maximize prices across a market.

She suggested substituting "a guy named Bob" everywhere the word algorithm appears.

"Is it OK for a guy named Bob to collect confidential price strategy information from all the participants in a market and then tell everybody how they should price?" she said. "If it isn't OK for a guy named Bob to do it, then it probably isn't OK for an algorithm to do it either."

Through a representative, Ohlhausen declined to comment on RealPage.

RealPage's software raises multiple concerns, experts said.

Courts have frowned on sharing nonpublic data among competitors. Lease transaction data is not always public.

As far as RealPage's claim on its website that it uses "disciplined analytics that balance supply and demand to maximize revenue growth," Stucke said that businesses can't usually control supply and demand on their own. "Normally that's left to market forces," he said.

The RealPage User Group — the forum for apartment managers who use the company's products — encourages rivals to work together, something that has been challenged as anti-competitive in antitrust prosecutions, too. The company's website says the group aims to "promote communications between users," among other things.

Starting out with 10 members in 2003, the group has grown to more than 1,000 participants, according to the website. A dozen subcommittees, including two focused on revenue management, meet in invitationonly sessions at the company's annual conference, RealWorld, and participate in a conference call each quarter.

Those sorts of collaborations, Stucke said, "could raise an antitrust red flag."

If clients are tampering with market forces, their assertions in RealPage marketing videos that its software keeps prices and occupancy "more stable" could also become relevant in court, Stucke said. Similar comments have been used as evidence in previous antitrust cases.

And the exhortations by RealPage and real estate executives for companies to use YieldStar and let some units sit vacant to raise prices are reminiscent of a legal case in the early 1900s, he said, where lumber companies shared information and a directive to reduce supply in order to push up prices.

In an email to ProPublica, RealPage dismissed the notion that the company was using market data improperly.

The company said that using actual rents helps the company "capture a truer picture of price elasticity and affordability," which reduces the odds a unit is overpriced. And the lease transaction data RealPage is using isn't always private; sometimes such data is disclosed, the company said, such as when publicly traded real estate firms make reports.

The FTC, which has broad authority to bring enforcement cases against businesses for anti-competitive practices, said in 2021 that it was seeking a more active role in such cases.

A spokesperson for the FTC declined to comment on RealPage's pricing software.

The agency has tangled with RealPage before: In 2018, the company agreed to pay $3 million to settle an FTC complaint that the company had failed to do enough to make sure personal information used in its tenant screening product was accurate. RealPage did not admit wrongdoing in the settlement.

Higher Rents Are Burdening More Tenants

Drama over rising rent costs — now a key driver of inflation — has been increasingly public. The year before the pandemic, roughly 46% of renters in the U.S. spent more than 30% of their income on rent and therefore met the definition of cost-burdened, Harvard University's Joint Center for Housing Studies found.

In mid-September in Washington, D.C., angry protesters disrupted the normally sedate yearly conference held by the National Multifamily Housing Council. Before security ejected them, they seized the stage and recounted how their families had been harmed by an inability to find safe, affordable housing.

At the center of the acrimonious debate has been RealPage's Jay Parsons.

Since RealPage's own July conference, he's repeated a statistic, compiled from a company data set of new lease transactions, that market-rate apartment renters are only spending around 23% of their income on rent.

"The reality is that rents can only rise as incomes rise," Parsons told The New York Times last month. "If people can't afford it, you can't lease it."

But his sunny view has drawn sharp rebukes.

"This is demonstrably false," wrote Ben Teresa, co-director of the RVA Eviction Lab at Virginia Commonwealth University, on Twitter. "One of the defining characteristics of housing markets in the last 40 years has been rents increasing faster than wages.

"The problem is quite precisely that people are paying rents they can't afford," he wrote.

Maya Miller contributed reporting and Doris Burke contributed research.

Heather Vogell

I cover commercial space companies and the federal agencies that work with and regulate them, like the Federal Aviation Administration and NASA.

MORE STORIES HAVE A TIP FOR A STORY?

I'm interested in hearing from former and current employees of rocket companies like SpaceX and other space-related businesses. I'd also like to hear from staffers at the FAA and NASA. What's changing as we move into a new administration?

Haru Coryne

Haru Coryne was a data reporter at ProPublica, based in Chicago. She covered housing, business and economic development.

MORE STORIES NEED TO GET IN TOUCH?