The New Landlord
Powered by Big Data and
Artificial Intelligence

What Does Affordable Housing Mean? And How is it Measured?
Housing is affordable when it costs consumers 30% or less of their income. Those spending more are considered cost or rent-burdened. Those spending more than half are considered severely rent-burdened. According to HUD, to measure affordability nationwide, 100% of the Area Median Income (AMI) is about $70,000, which makes $1,750 (30%) or less spent on housing affordable. That would make the purchase price of affordable homes under $300,000. However, the metro areas have become the most impacted. In Seattle, like many metros, AMI is about $100,000, which equals $2,500 for a rental or under $400,000 for a house.

The State of Our Housing
To better understand our affordable housing crisis, we should first be aware of the original framework underpinning our housing programs. It began in the 1930s when President Roosevelt launched the New Deal. Before this, our federal government played no role in housing. It's best remembered for its directive: that every American deserves a decent home and a safe living environment. Initially, no more than 20% of the family budget was to go to housing. The program was so successful that by 1939, purchasing a home was cheaper than renting an apartment. Just how significant is this? In the whole history of the world, this hadn't happened before. It's a big deal. Homeownership and the 'American Dream' became synonymous terms in everyday life, by 2005 reaching 70%.

In stark contrast, in 2022, housing has become unaffordable for most Americans, especially those living in metropolitan cities, where most are now paying half or more of their income on housing. The heart of the problem is that nationally, 66% of the workforce earns less than $20 per hour, which is 70% or less of AMI. Today, 43% of Americans—

nearly 51 million families—can no longer afford the cost of housing. It has become the existential crisis of our time, yet it's been largely marginalized.

But what is driving the affordable housing crisis? The housing industry continues to push the narrative that it's just a simple supply and demand problem-- a housing shortage-- as of 2017, according to the National Low-Income Housing Coalition (NLIHC), America had a crippling shortage of over seven million affordable units. However, my conclusion, supported by more than five years and ten thousand hours of meticulous research, suggests it is more likely the result of introducing AI (artificial intelligence) powered technologies into the industry. This book, The New Landlord, details how they implemented AI-powered technology throughout the housing industry and the paradox of its consequences.

In the Rental Housing Industry, AI is used to drive up rental rates artificially.

The rental housing industry has been wholly transformed by AI technology. It's founded on the belief that companies no longer compete on pricing. Instead, they leverage their relationships with their competitors, customers, and suppliers by accessing and sharing massive amounts of private data. These conglomerates use a common pricing platform, RealPage (Platform), to jointly price their rental units. It's designed to manipulate the market by distorting traditional supply and demand logic to increase rental rates artificially. Compounding the problems is that Wall Street-owned and funded property management companies have been consolidating through mergers and acquisitions at an alarming pace, overseeing more than 82% of all rental units nationally.

During the early stage of house-hunting, before a physical application, this technology uses that data to pre-qualify applicants based on ability and willingness to pay the highest rates. Then, it prioritizes applicants based on wealth, income, skin color, sexual orientation, political preferences, and other sociological characteristics. For instance, when minorities try to move into safer neighborhoods to provide a decent home and a safer living environment, their ability to pay doesn't necessarily guarantee they can. The Platform allows property managers to discriminate, and they do so by circumventing the

Fair Housing Laws. Today, in America, it's no longer an individual's hard work and potential that determines their future; instead, their futures are determined by a pricing algorithm.

Here's how it works. Landlords begin by accessing and sharing with the Platform all data on their applicants, tenants, and properties; this data lives in real-time. Then, they jointly employ numerous algorithms using the shared data to price their units for them. Their economic theory holds that when there is a balance in supply (housing) and demand (tenants), they can increase rates indefinitely. Thus, their primary goal is to ensure that an evenly balanced number of available rental units to applicants exists. To balance demand (applicants), they limit the number allowed into the renter pool at any given time. This is accomplished by simply manipulating their prescreening scoring models. Then, to balance supply, they hold rental units off the market---nationally, hundreds of thousands of rental units sit idle.

At its heart, the prime directive of the pricing algorithm is to maximize profits. Thus, one of the variables must, by necessity, include eliminating those tenants who cannot pay those ever-increasing rates. Nationally, every 5% rate hike correlates to a defined number of tenants priced-out of housing and into the streets--- in Seattle, it's 258; in Los Angeles, it's 2,000; in New York, it's 3,000. The stark truth of the algorithm's core programming is that it's designed to price out the bottom 15% of tenants to maximize profits. Their results created the 'priced-out' population, those who, on their ability alone, can no longer afford the cost of housing. For example, in Seattle in 2015, over 35,000 people became homeless for the first time after excessive artificially driven rate hikes of over 40% in 2014. Nationwide during this same period, ten major metropolitan cities across the western U.S. where the Platform is used also filed states of emergency over the homeless crisis.

However, it gets worse still. Landlords have formed a debt collection-driven embargo against tenants who owe them money. It works like this. They hold those tenants in the streets—this pricing program prohibits other landlords from renting to any applicant owing money to them until they have been paid in full. The homeless are those unable to pay those massive fees and ever-increasing rents.

However, pushing those tenants into the streets is just the beginning of the homeless dilemma. In large numbers, elected politicians and Supreme Court Justices now embrace the money changers, taking billions of dollars in payola from them. These billionaire investors have pushed states like Tennessee, Florida, and Texas to make homelessness a felony. Worse still, these states actively and knowingly participate in the landlords' pricing schemes.

We will now focus on how metros have turned to HUD-sponsored financing programs to create affordable housing. Beginning in 2017, apartment sales jumped by 32%, and by 2022, nearly 2 million rental units have been built. This construction, however, has come at a steep price as metro areas compete with other metros for the limited number of builders and resources. In Seattle, for example, they lure contractors by offering special financing under the HUD Multifamily Tax Exemption Program (MFTE). These loans are not guaranteed by the property owners but by taxpayers. Additionally, the city waives the property taxes; in exchange, the owners must set aside 20% of their units and accept discounted rental rates based on tenant eligibility, becoming taxpayer-funded rent-restricted units.

However, do these financing programs work? To answer the question, we turn to Seattle, where since 2015, they have been tax-exempting over a billion dollars in new construction every year, directly resulting in waiving over $137 million in annual taxes. To determine the effectiveness of the programs, in 2019, the state of Washington completed an audit of the program. The findings concluded that it didn't deliver on its affordable housing promises. In short, although the program may have spurred more housing, it didn't stimulate affordable housing. This is also true nationally, where the very HUD financing programs used to build affordable housing are riddled with fraud and abuse and primarily benefit the investors.

So, we ask the question, why don't the financing programs work as intended? The crisis has worsened because these same national conglomerates managing the rental units are vertically integrated in their organizational structures, meaning they are also the nation's largest builders. For example, Greystar is the nation's largest apartment developer, builder, and manager, managing nearly a million rental units. They are also one of the nation's largest owners. These builders also use the RealPage Platform, which directs the construction location, not based on need or traditional market forces, but primarily to the largest 20 metros where they can generate the greatest profits.

Additionally, the Washington audit found that over a quarter of those rent-restricted units were being overcharged for rent. Worse yet, many of the rent-restricted units were unlawfully leased out for vacation rentals or held off the market for long periods of time as part of the Platforms' economic balancing scheme. The audit findings are meaningful because it sheds light on the reality that many taxpayer-funded rental units intended for the rent-burdened or homeless are not being used for that purpose. Today, more people live on the streets than during the Great Depression. Thus, the RealPage AI-powered common pricing Platform sits at the heart of the homeless crisis in America.

In the Single-Family Residential (SFR) Construction Industry, AI is used to Drive up Home Prices to Maximize Profits Artificially

We will now direct our attention to the Single-Family Residential Industry. As previously stated, the NLIHC noted that America had a crippling shortage of over seven million affordable units. The free market system (big business) has invested over half a trillion dollars by 2022, building 6.7 million new homes to solve this housing crisis. Unfortunately, the construction occurred at the upper end of the price structure, mainly in the top twenty metro areas and predominantly in the south, except New York City and Seattle. In 2019, 52% of newly constructed homes were priced under $300,000. However, by 2022, that figure had plummeted to only 13%.

Sales Price of Existing Single-Family Homes

Year	U.S.	Northeast	Midwest	South	West
2020	$ 300,200	$ 341,700	$ 235,400	$ 265,100	$ 451,500
2021	$ 357,100	$ 394,100	$ 236,300	$ 317,500	$ 558,800
2022	$ 392,800	$ 426,000	$ 281,900	$ 359,500	$ 617,100

Source: NATIONAL ASSOCIATION OF REALTORS® https://cdn.nar.realtor/sites/default/files/documents/ehs-03-2023-single-family-only-2023-04-20.pdf

Affordable housing advocates pressured their lawmakers for answers to the escalating housing costs. In a 2022 legislative hearing, the housing industry quickly pointed out that they can't build housing priced under $300,000 because the cost of building materials is too high.

So, the question we seek to answer is: Are the steep rises in housing prices the result of out-of-control costs on building materials, or is it the result of market manipulation? Similar to the rental industry. We ask this question because starkly contrasting their claims to Congress, residential building giants like D.R. HORTON, the nation's largest SFR builder, per their financials, reported a $7.6 billion profit in 2022. Yet they claim they can't afford to build a home for under $300,000.

Still, with construction at all-time highs and affordable housing inventory at all-time lows, will more unregulated home building solve the crisis? After all, as taxpayers, we guarantee these loans that now total well over $7 trillion—an all-time high. Can we rely on this industry to build affordable housing? This question becomes essential, considering that the Biden Administration wants to increase homebuilding significantly. Not only nationally but also in states like California, where taxpayers approved a $6 billion bond measure, and local metros like Seattle also wish to increase the number of affordable homes built.

Consolidations and AI Technology in the Residential Construction Industry Today

In determining whether the spike in housing costs results from market manipulation or out-of-control building material costs, we turned to a 2018 study by John Hopkins University. Their study concluded that from 2013 to 2017, new construction home prices artificially increased by 50% due to the lack of competition between builders. By 2016, two or fewer builders produced up to 80% of all new construction in most markets. Their study concluded that had the industry not consolidated, new construction would likely have produced an additional 150,000 homes annually and likely kept pace with demand.

Compounding the housing crisis is that consolidations have led to market power combining into fewer and fewer hands. These Wall Street-funded conglomerates wield disproportionate influence over prices by deploying their AI-powered platforms. One of those platforms in the single-family residential construction industry is Procore, which operates similarly to RealPage. These unregulated platforms have gained access to massive amounts of real-time data on their customers, applicants, and properties. They use that shared data to manipulate the market and set the highest rates possible.

What happened to all that new Construction (2017-2022)? A New Sector Enters the Industry: The Rise of the Single-Family Residential Absentee Owner-Investors and their Use of AI-powered Technologies to Manage and Price Their Units

One of the most significant challenges metropolitan areas face today is the sheer number of affordable housing units taken out of the market by institutional and local investors who have targeted what is considered affordable—those homes with values under $300,000.

We now transition from how AI is used in the rental and construction industries to how AI is deployed in renting and managing single-family houses. With the advent of this technology, a new industry sector has emerged: The Rise of Single-Family Residential Absentee Owner-Investors.

Founded in 2001, the Propertyware technology program provides property management services to the Single-Family Residential Rental Industry, including companies like Vrbo and Airbnb. In 2009, RealPage acquired them, significantly enhanced its technology and data capabilities, and then began pricing the rentals on their Platform. Before this, large-scale investments in the single-family market did not exist. The Platform changed all that and transformed affordable housing into a lucrative investor-driven industry. Once again, unregulated AI-powered technology sits at the heart of the housing crisis. Worse still, these technologies remain variably unchallenged or unregulated by any governing body.

Investors can pay significantly more for properties due to unfair tax laws, and they can provide better terms than affordable buyers in purchase agreements. A study published by Curbed in 2018 found that about 200,000 of these single-family homes are owned by large corporate investors, such as Invitation Homes. However, non-institutional investors also pose a grave threat to housing. For instance, between 2006 and 2016, 3.9 million affordable homes were converted to rentals. Through 2020, investors have also acquired millions of affordable homes and converted them into vacation rentals. Since 2020, over 20% of all affordable homes listed for sale are now being acquired for rentals.

Investors chose this type of housing as an investment because, in addition to the unfair tax advantages over homebuyers, they can charge 30% higher rates than comparable housing alternatives such as apartments.

The Summary of the Lack of Affordable Housing

In 2017, the National Low Income Housing Coalition (NLIHC) reported a shortage of over seven million affordable housing units. In response, between 2017 and 2022, the housing industry built 8.7 million housing units to solve the shortage. However, in 2024, the NLIHC reported that a shortage of over seven million affordable housing units still exists.

Therefore, the question becomes: Can the American people rely on this industry to build affordable housing? Or is America stuck in an endless time loop of funding massive profits for this industry? All the while, more and more of our citizens camp on the streets due to the lack of affordable housing options. Worse still is that larger metros like Seattle, WA., spend over a billion dollars annually to care for those priced out of housing. These numbers aren't sustainable.

To answer this question, we only need to look into our recent past, which eerily mirrors our present like a ghastly Déjà vu episode of Charlie Brooker's Syfy blockbuster *Black Mirror*. Let me explain.

The Residential Construction Industry Won't Build Affordable Housing, and Here's Why

By 1999, the residential construction industry, led by Harlan Crow, had been lobbying then-Texas Governor and U.S. presidential candidate George W Bush for a government-assisted large-scale residential construction program. The housing industry was recently recovering from its financial crash and massive losses in the 1990s and was anxious to test-drive its newly developed AI-powered platforms, like Procore.

Then, on Sept. 11, 2001, a terrorist attack plunged the stock market into chaos, causing a $1.4 trillion loss in market value. Over 600,000 people lost their jobs, and over 18,000 small businesses closed their doors. The Bush Administration called on Crow and the housing industry to use HUD financing programs to rebuild the 'frozen economy.'

In June 2002, the Bush administration pledged to construct 5.5 million homes, dubbed: 'to improve Black and Minority-owned home ownership.' The Act pushed for $1.1 trillion in spending. To make this program work, Congress severely weakened applicant qualifications, for instance, by increasing the debt-to-income ratio from 30 to 50%. Then, Congress provided the buyer's down payments. Bush had to, in his words, "use the mighty muscle of the federal government" to meet his housing goals. In other words, all the concessions for home-buying qualifications occurred on the demand side of the equation, paying no attention to the moral hazard on the supply side.

What were the results? Using their newly acquired AI technology and devoid of any regulatory oversight, the construction industry began artificially raising housing prices, and their profits soared—again, identical to today in 2024. By 2006, in just one year, the cost of affordable housing had doubled in most metros; for example, it increased by 241% in Miami, Florida. By 2006, housing became unaffordable; the number of households exceeding housing cost burdens climbed by 2.3 million, hitting a record of 37.3 million citizens. These sharp rises in housing costs are similar to today in 2024. Like in 2006, housing has become unattainable for those making 100% or less of AMI.

The fundamental flaw in the HUD financing programs is that without proper oversight and regulation, the investors can make massive, risky bets, and the risk falls upon the government and, eventually, taxpayers. In 2008, the housing industry crashed financially, taking our entire economy down. On average, home values dropped by 25%. However, some regional areas saw home prices fall by as much as 40%. In other words, a $400,000 home dropped to $300,000. But the mortgages didn't change, placing nearly half of all homeowners upside down in their mortgage-to-value ratios. Over ten million Americans lost their homes to foreclosure between 2006 and 2014 ----that's 3.7 million houses ---unprecedented.

The taxpayers would end up paying over $4.5 trillion to cover the losses due to the moral hazard and greed of the residential housing industry. The Federal Reserve gave the Wall Street behemoth BlackRock no-bid contracts to manage the toxic housing bonds; it now sits at $8.5 trillion (2019). Even worse still, the Federal Deposit Insurance Corp (FDIC) gave those very builders and investors who caused the financial meltdown the contracts to sell those 3.7 million homes. This loops us back to the rise of single-family absentee owner-investors. In the end, almost all of the affordable housing inventory created by the 2002 Bush housing program and the 2017-2022 housing construction push has ended up in investors' portfolios.

The failure of the 2002 Bush housing program and the 2017-2022 housing push to produce affordable housing answers whether or not this industry can be relied on to build affordable housing today. But of course, we already knew this. One of our housing programs' chief architects has already answered the question. As detailed in the first Washington Conference on Public Housings in January 1934, Frederic C. Howe would close his speech by reminding the attendees that "private capital, whose primary interest is in turning a profit, will not supply enough homes for persons of small means." Apparently, he was right.

To conclude, the center of the affordable housing crisis appears to be the abusive methodologies built into their AI-powered pricing algorithms that push for profit maximization above all else.

Their failure to correct this problem concludes that the industry has become like a self-licking ice cream cone, a closed loop, a self-perpetuating system with no purpose other than to sustain its massive profit centers; it's totally self-serving. The fact is, they have never built affordable housing in sufficient numbers; they aren't building it now, and history concludes they never will. Any attempt to rely on them to build affordable housing using these unregulated AI platforms will be as doomed as Frankenstein and his monster.

So, what do we, as American citizens, do to solve the affordable housing crisis? The answers are detailed in the forthcoming book, the New Landlord, Powered by Big Data and Artificial Intelligence.