Property Management Industry Pulse

Artificial Intelligence

NAA NATIONAL APARTMENT ASSOCIATION   appfolio

Overview

Google Trends showed searches for artificial intelligence (AI) picked up slightly in 2018, flatlined and then surged in the second half of 2022 with the arrival of ChatGPT, with no signs of letting up thereafter. But AI is not a trend, and property management companies, like many other businesses, recognize that.

"In the short term, generative AI is overrated. In the long term, it's underrated."
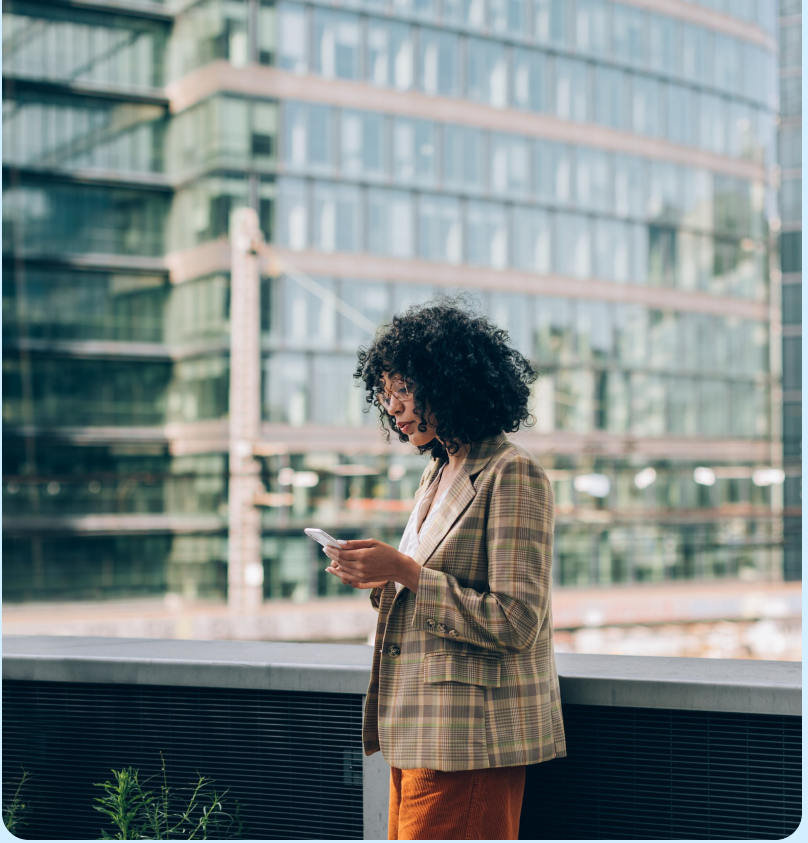
As the industry embarks on more widespread usage of AI, questions abound about its applications, efficacy, ethics, and risks.

The research presented in this report implemented a two-pronged approach to uncover practices, sentiments, and strategies related to the use of AI in the rental housing industry. National Apartment Association (NAA) Research, sponsored by AppFolio, conducted in-depth interviews with 12 industry leaders during June and July 2024. Additionally, a companion pulse survey was conducted in early August, which received nearly 1,000 responses from industry professionals.

Several key themes resonated throughout the research:

1. AI is squarely in its infancy in rental housing.
2. The early adopters are excited about the seemingly endless possibilities it creates for efficiency and innovation and are certain that the benefits far outweigh any potential pitfalls.
3. Current AI usage spans multiple functions and touches all stakeholders, and communication and transparency are essential to gain their confidence.

As one industry leader said, "How can we engage our stakeholders, whether it's our partners, whether it's our community people, whether it's our residents, our staff, our vendors, how is this going to touch us in a different way, and how can we make sure that it is being utilized effectively and helpful to us, not hurtful." Industry partners have indeed been helpful with the journey to date, but more cohesion within the industry itself will propel AI to the next level.
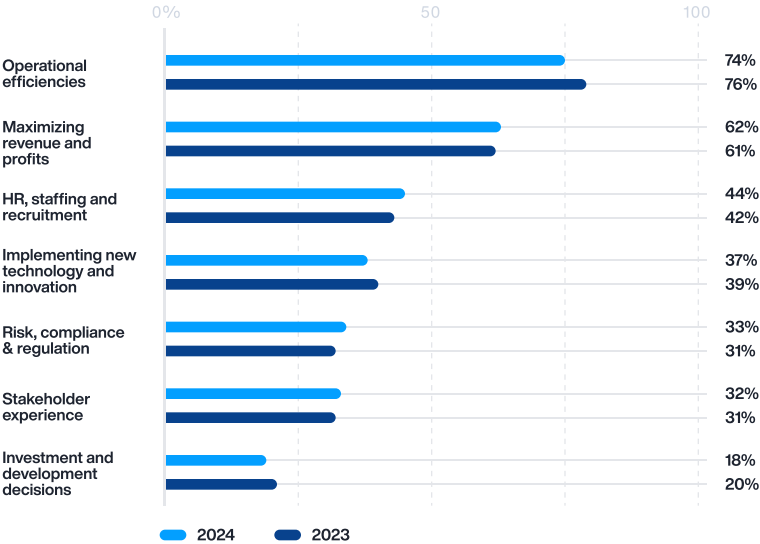
Industry Challenges

Before delving into questions about AI, industry professionals were asked to rank their top challenges in 2024, using the same major categories as a survey NAA and AppFolio conducted last year:

- HR/staffing/recruitment
- Implementing new technology and innovation
- Investment / development decisions
- Maximizing revenue and profits
- Operational efficiencies
- Risk/compliance/regulatory and stakeholder experience (residents, owners, and Staff).

The survey results collected between 2023 and 2024 reveal that the primary industry challenges have largely held steady, with minimal variations in some categories. This comparison captures the top three challenges faced by survey respondents across both years, indicating stability in organizational priorities over time. Operational efficiencies remained the leading challenge, slightly dropping from 76% in 2023 to 74% in 2024. Maximizing revenue and profits rose by 1%, while HR/staffing/recruitment stayed relatively consistent with a 2% increase. Other categories such as implementing new technology, risk/compliance/regulation, and investment/development decisions also experienced minor fluctuations.

Top Challenges (2023 vs. 2024)

What are your company's top three most important challenges today?

Challenge	2024	2023
Operational efficiencies	74%	76%
Maximizing revenue and profits	62%	61%
HR, staffing and recruitment	44%	42%
Implementing new technology and innovation	37%	39%
Risk, compliance & regulation	33%	31%
Stakeholder experience	32%	31%
Investment and development decisions	18%	20%

2024   2023

NAA
NATIONAL APARTMENT ASSOCIATION

AI and Property Management Today

Adoption and Evolution

AI adoption started for a handful of firms in the mid to late 2010s, but most of the leaders interviewed indicated it began within the past five years, with more focus placed on AI within the last two years. It's important to note that artificial intelligence is a broad field and its current applications in the rental housing industry are generally limited to more traditional AI, although the availability of generative and predictive AI tools for property management is growing at a rapid pace.

The earliest uses of AI in the industry, and still in widespread use today, took the form of chat bots, used mainly for performing customer service during the initial stages of leasing or employee experience. Since then, AI has been targeting prospects, editing photos, interpreting requests, supporting, collections and providing training to employees, among many other tasks. AI's biggest strength is handling simple, repetitive tasks, leaving employees the time to bring a personal touch to the resident experience or merely focus on the things they do best.

From the perspective of the survey results, respondents were asked to evaluate the current level of AI usage in various operational functions. Although relatively low overall, marketing and leasing ranked the highest in AI usage among the listed functions. This suggests that most companies use AI for targeted marketing, lead generation, and leasing strategy optimization. Additionally, AI is moderately utilized for resident communications and satisfaction, likely through chatbots, voicebots, automated responses, virtual assistants, and sentiment analysis.
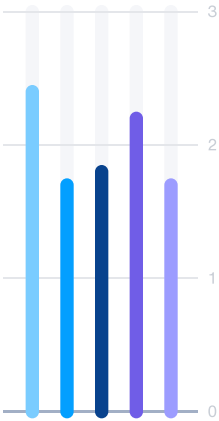
Functions with lower levels of AI usage include finance and accounting, maintenance, and staff training and engagement. This indicates minimal AI usage in areas such as invoice processing, expense management, basic financial analysis, predictive maintenance scheduling, and personalized training programs for employees.

The AI usage score currently falls below the midpoint on a five-point scale, ranging from 1.7 to 2.4. This score represents the weighted average of survey responses on the level of AI utilization across five major operational categories within the industry: marketing and leasing, maintenance, finance and accounting, resident communications and satisfaction, and staff training and engagement. There is significant potential for improvement and expansion in integrating AI technologies across all listed functions. This could involve the adoption of more advanced tools for enhanced personalization, along with automated reporting, real-time maintenance monitoring, employee engagement tracking, performance tracking, data analytics and predictive analytics.

AI Usage Score by Function

Please rate each of the following functions based on their current level of AI usage, with 1 being the lowest and 5 being the highest:
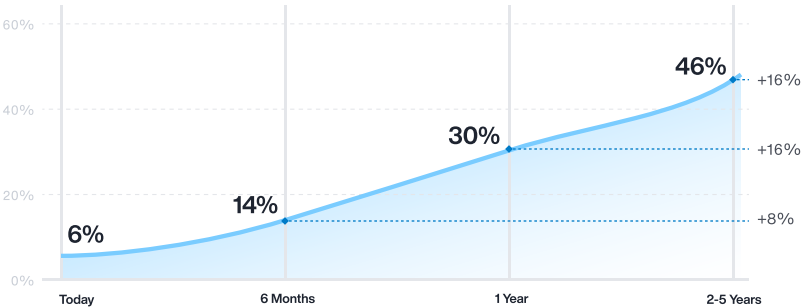
- **2.4** Marketing and leasing
- **1.7** Maintenance
- **1.8** Finance and accounting
- **2.2** Resident communications
- **1.7** Staff training and engagement

Generally, a cautious approach in adopting AI technology across multiple functions is also observed, with a gradual shift toward complete adoption in coming years. Over half of the respondents (54%) have no plans for full adoption, meaning they do not plan to use it across all business functions. However, there is a considerable portion planning to adopt AI within the next few years, with 16% aiming for a two-to-five-year timeline and 16% within the next year. 8% are targeting adoption within the next 6 months and only 6% have fully integrated AI across multiple functions.

Timeline for Full AI Adoption

What is your timeline for adopting AI technology across multiple functions?

6% Today
14% 6 Months +8%
30% 1 Year +16%
46% 2-5 Years +16%

Based on insights gathered from interviews, the primary motivations for companies adopting AI or planning to adopt it fully in subsequent years revolve around its potential to reduce operational burdens while simultaneously enhancing productivity. As one interviewee noted, "AI takes care of the repetitive tasks that bog us down, allowing our teams to focus on more strategic work."

Regardless of how they are currently using AI, industry leaders were eager to discuss other uses they envision, such as audio imitation, multiple language capabilities, and robotics. One interviewee would like to see maintenance technicians getting real-time training in a virtual reality setting, while another felt AI would reopen discussions about blockchain usage in the industry.

Challenges

All interviewees are prioritizing AI in 2024 and beyond, knowing that it will help them achieve much-needed operational efficiencies. When asked what they needed help with, implementation and integration were often cited, as was the need for more AI partners from within and outside the industry as most firms are not self-developing AI. Other common responses were transparency and alignment within the industry, best practices, and the sharing of knowledge. Third-party fee managers have a different set of concerns, namely getting their owners, who do not necessarily believe that AI and humans can coexist, to get on board, along with developing price strategies if the fee manager needs to cover the upfront costs.

According to the survey results, among the 57% of respondents who reported their companies are currently adopting AI, a plurality expressed concerns about the accuracy and reliability of AI outputs.

Specifically, 35% of respondents identified AI's potential for errors, and 34% indicated the difficulty in integrating AI with existing systems as the most recent and significant challenges in AI adoption. Additionally, 25% of respondents pointed to the lack of skilled personnel as a major obstacle, while 23% highlighted data privacy concerns as a key issue. Other challenges cited include financial and budget restrictions, regulatory compliance, securing buy-in from key stakeholders, and inadequate training on how employees can effectively complement their work with AI tools.

In addition to these challenges, industry leaders are concerned about potential issues they believe are being overlooked in current AI discussions.

These include cybersecurity risks and the lack of understanding about what it really means to give up your data to AI.
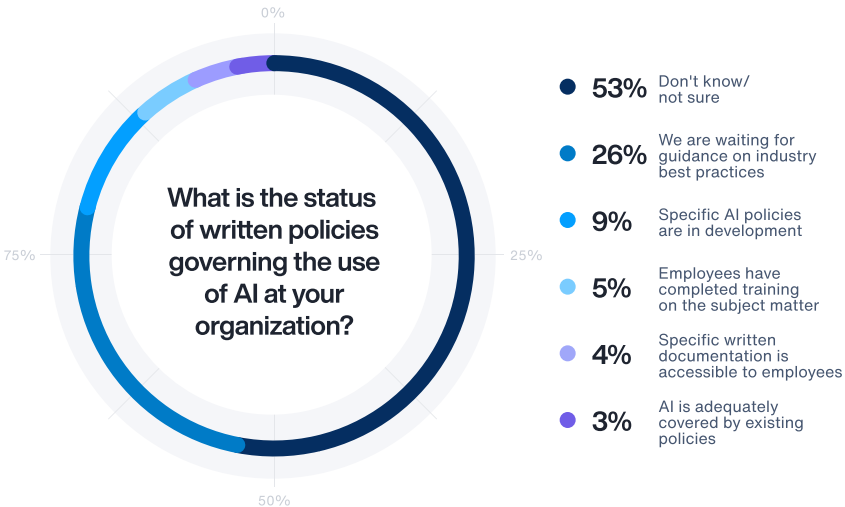
Specific plans for using AI in centralization are lacking as is ensuring a standard property-to-property experience. A persistent lack of integration and non-English language tools were also thought to be under the radar. Finally, the lack of reckoning about how many jobs could be gone in five years was a concern raised by one industry leader, a view that was a distinct outlier compared to other interviewees.

Keeping AI Compliant

For the most part, industry leaders recognized a need for more formal AI policies, but few had them in place. Several were in the process of drafting new policies or revising current ones. Less formalized policies included blocking access to certain AI tools and only using vetted, secure tools from trusted sources, including existing technology partners. Interviewees indicated that employees have been trained in how to use and how not to use AI. The word "guardrails" was mentioned frequently as was "auditing," which is performed on a regular basis.

There is also an unmistakable desire for the industry to coalesce around best practices and learn from others' mistakes and successes.

Survey results and interview findings regarding written AI policies aligned when it came to the desire to have some sort of industry guidance. This indicates the need for clearer direction and education on AI implementation. Similarly, 26% are waiting for guidance on industry best practices, while 9% are actively formulating and formalizing AI policies. Only 5% report that employees have received thorough training on AI, equipping them to effectively use it in daily operations where it has been integrated, while 4% have specific written documentation accessible to employees. Overall, there is a clear need for legal and regulatory guidance before companies can fully capitalize on the opportunities in AI, with many organizations still in the early stages of development or awaiting further guidance.

What is the status of written policies governing the use of AI at your organization?

- **53%** Don't know/ not sure
- **26%** We are waiting for guidance on industry best practices
- **9%** Specific AI policies are in development
- **5%** Employees have completed training on the subject matter
- **4%** Specific written documentation is accessible to employees
- **3%** AI is adequately covered by existing policies

Measuring Success

In most cases, the benefits of AI were difficult to quantify, as other initiatives, such as centralization or additional cost-cutting measures, were being simultaneously implemented. Regardless, those interviewed noted time savings, improved process flows, improved collections, increased response times, and overhead savings.

Quantifiable results, included in the table on the next page, further illustrate the impacts of AI's adoption.
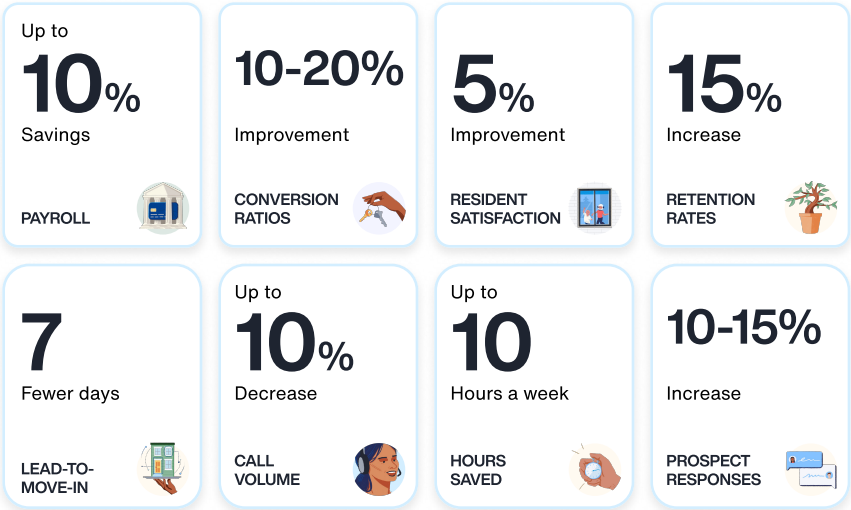
"We saw improvements in conversion ratios by 20% with the use of lead nurturing and chatbots on websites. Additionally, retention rates have grown from 50% to 60% over the past few years."

Another participant provided the following on AI's measurable impact:

"Over the past two years, we have experienced a five-day reduction in the turnaround time from lead to appointment, lead to tour, and lead to application and have cut the lead-to-move-in timeframe by a week."

These metrics emphasize how AI adoption is not only streamlining workflows but also driving significant improvements in customer engagement, efficiency, and overall business performance. Another respondent emphasized long-term benefits, stating, "By automating key processes, we've seen a 20% increase in efficiency across departments."

Quantified Impacts of AI Adoption

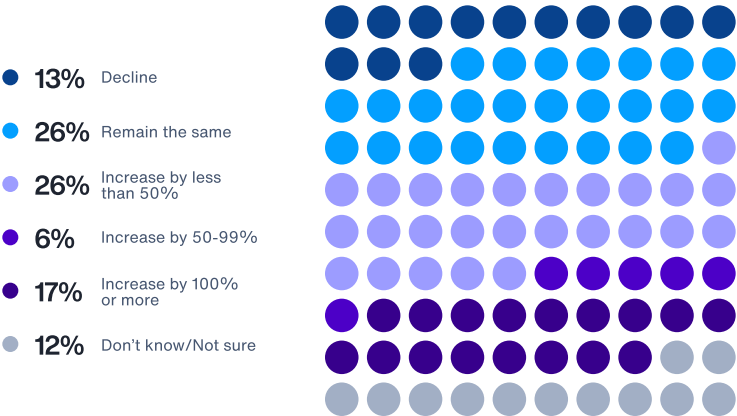|			
Up to **10**% Savings **PAYROLL**	**10-20%** Improvement **CONVERSION RATIOS**	**5**% Improvement **RESIDENT SATISFACTION**	**15**% Increase **RETENTION RATES**
7 Fewer days **LEAD-TO-MOVE-IN**	Up to **10**% Decrease **CALL VOLUME**	Up to **10** Hours a week **HOURS SAVED**	**10-15%** Increase **PROSPECT RESPONSES**

Survey results reveal that while 47% of respondents are uncertain about which key performance indicators (KPIs) to use, the most prevalent metric that businesses will use to measure AI success is overall operational efficiency, with 48% of respondents identifying it as a major priority. This highlights a strong focus on optimizing processes to maximize output and cost effectiveness. Additionally, a significant portion of respondents (38%) emphasize resident satisfaction as the next most important KPI, underscoring the value of customer feedback in driving overall business success. Speed of response time (32%) and cost savings (31%) are also significant priorities for roughly one-third of respondents, reflecting a commitment to responsiveness, efficiency and expense reduction. A smaller percentage (10%) plan to track the efficiency of their workforce through the number of units managed per: employee.

Other metrics businesses plan to use to measure AI success include the accuracy of generated information, owner satisfaction, and the consistency and predictability of results.

An industry goal for several years has been to increase the ratio of units under management to the number of employees — a measure of operational efficiency, with the historical industry benchmark set at 100:1. According to the five-year estimates provided by respondents, the average expected future ratio is 117:1. Most respondents (52%) expect either stability or moderate growth in the number of units managed per employee. Reactions to future units-to-employee ratios vary: 26% expect automation to boost efficiency, enabling their workers to manage a slightly larger portfolio, while another 26% prefer to maintain current staffing levels despite advancements in automation, possibly due to not adopting new technology. Conversely, 13% foresee a decline in units managed per employee, potentially due to increased operational complexity, budget constraints, or training needs. Consequently, diverse expectations for this ratio may emerge based on each company's unique circumstances and challenges.

How Property Managers Expect The Unit-to-Employee Ratio to Change in Five Years

13% Decline

26% Remain the same

26% Increase by less than 50%

6% Increase by 50-99%

17% Increase by 100% or more

12% Don't know/Not sure

NAA
NATIONAL APARTMENT ASSOCIATION

AI Approach by Industry Category

Multifamily vs. Single-Family Operators

This section delves into the variations in AI adoption between operators of strictly single-family units and those managing conventional multifamily units. The analysis focuses specifically on key areas such as current AI usage patterns, adoption timeline across multiple operational functions, KPIs used to measure AI success, and challenges associated with AI.
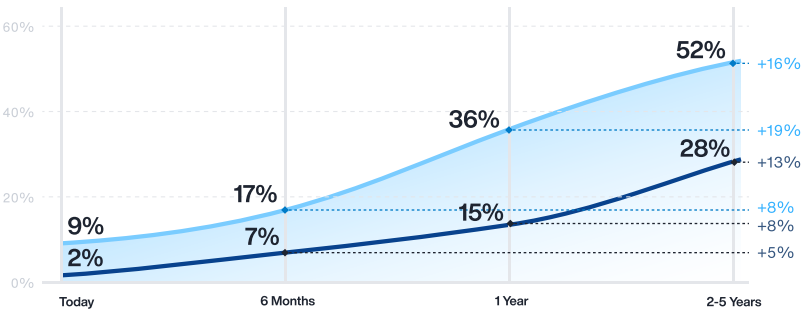
When examining AI usage across operational functions, it was evident that, despite the weighted average being below the midpoint on a five-point scale, single-family and multifamily operators are employing AI in similar ways.

The highest AI usage was observed in marketing and leasing, while the lowest was in staff training and maintenance. In addition, single-family operators tended to have a longer timeline for adopting AI across multiple functions. Specifically, 19% of the multifamily operators plan to adopt AI across several functions within the next year and 16% within the next two-five years. In contrast, only 13% of single-family operators anticipate adopting AI within the next two-five years, with a mere 8% considering adoption within the next year.

Timeline for Full AI Adoption

What is your timeline for adopting AI technology across multiple functions?

△ Multifamily   △ Single-family

	Today	6 Months	1 Year	2-5 Years
Multifamily	9%	17%	36%	52% (+16%)
		(+19%)		
Single-family	2%	7% (+5%)	15% (+8%)	28% (+13%)
			(+8%)	

Regarding parameters for tracking AI success, both sectors of the rental housing industry prioritize operational efficiency as the top metric. However, they differ slightly in their alternative approaches. Multifamily operators plan to focus on resident satisfaction (41%) and cost savings (37%), whereas single-family operators plan to prioritize speed of response time (28%) and resident satisfaction (25%).

The challenges encountered with implementing AI also vary between the two groups. For multifamily companies, the most significant issue is integrating AI with existing systems (38%), followed by concerns over AI's potential for errors (35%). On the other hand, single-family operators cite the potential for errors (30%) as their most pressing challenge, followed by data privacy concerns (27%) and integration with existing systems (27%). These differences highlight the varying concerns operators have regarding the incorporation of AI technology.

Future of the Industry

Over the short term, industry leaders expect increased investment in AI from business partners as more rental housing companies start using it and demand for new tools and functionality increases. Many expect that the initial investment for the industry as a whole will focus on generative AI. As with any new product, there will also be a discovery phase with a lot of trial and error. Efficiencies will be attained, and staff will be able to shift to functions that help with the brand. Headcount is not anticipated to be impacted within the next two-three years, but staffing structures will absolutely change as AI helps fill in some of the gaps.

Long-term prognostications include more proliferation of AI in operations, particularly in the financial, accounting, and human resources realms, as well as more predictive analytics and better investment data. Industry leaders discussed AI as a channel to level the playing field for mom-and-pop owners, along with the potential for significant benefits for single-family rental housing. Fraud detection, risk assessment, and security were also considered conceivable uses for AI.

"Office staff can focus on what matters and work on the 'culture' of the property."

While the consensus was that staff would not be eliminated, hiring is expected to slow as AI could accomplish more with current headcounts. There is no doubt that AI will shake up staffing and lead to more specialized roles. There will be fundamental shifts in the resident experience as more staff have forward-facing roles. Finally, one leader gave advice about finding the right balance between achieving cost efficiencies and optimizing the resident experience.

The interviews and survey also included rapid-fire questions. The point of these types of questions is to solicit quick, one-word answers that tend to represent a "gut response" without extensive descriptions in either the questions or answers. Industry leaders are clearly feeling more optimistic about AI, expecting labor joys to far outweigh labor grief, with one interviewee envisioning grief for onsite employees and joys for any roles related to investment. Only one of the 12 participants thinks AI will pose more challenges than opportunities. The final rapid-fire question asked whether there would be more or less competition across the industry. More than 80% expect more competition stemming from AI usage.

Interestingly, the results from the survey's rapid-fire question on the projected impact of AI on the labor force provided a contrasting view to the findings from the interviews, revealing a divergence in perspectives. A slight majority of individuals believe AI will bring labor grief (53%) compared with those who think it will bring labor joy (47%). This result reflects a division in opinion, where a significant number are concerned about the potential AI impacts on the labor force, while nearly an equal number recognize the potential benefits. Meanwhile, the findings regarding future competition among companies in the rental housing industry align with sentiments from the interviews, with 70% of respondents agreeing that AI will intensify competition within the industry.

Do you think AI will induce more competition or less competition among companies in the industry?

70% — More   **30% — Less**

This suggests that the majority anticipate AI could either make it easier for new entrants to challenge established players or intensify competition among existing companies through innovation, efficiency, and cost reduction. This means leveling the playing field by encouraging market fragmentation and differentiation. The 30% who opposed this notion may be concerned about the potential change in market dynamics where a few dominant firms use AI to outcompete or acquire smaller competitors.

"Embrace it! It is not taking your job away but helps you to be better at the things you're actually good at."

NAA
NATIONAL APARTMENT ASSOCIATION

Preparing the Next Generation of Leaders

Several questions focused on AI's future in the industry. Interviewees were asked what the next generation of leaders in the industry should consider when it comes to AI. An overriding theme was being open to the opportunities that AI will bring and having the change management skills to navigate them. Future leaders will also need to have the ability to rethink, remap, and re-strategize processes and be intentional with business processes, i.e., what are we trying to solve and how will we measure it?

"There is value to young leaders leaning in and being the subject matter experts on these tools – they have a clearer picture and understand AI."

The complementary role of AI in job functions needs to be stressed, in that it's more about achieving efficiencies and increasing productivity than reducing staff size. Recognizing that AI is the tool, not the strategy itself, and keeping a purpose-based mindset will also be important for future leaders. Finally, advocating for the proper balance between using AI tools and general best practices and staying up to speed on the risks of AI will be vital for future leadership in rental housing.

Final Thoughts

The research results reveal that the AI course has already begun in the rental housing industry, with many firms well on their way to reaping the benefits. Adoption has not only been cautious but measured as professionals navigate the complexities of AI, including potential risks, legal issues, and compliance challenges.

Those who are waiting to merely dip their toes in the water will likely miss out on critical operational efficiencies and may remain behind the curve as AI rapidly evolves. Most firms understand that it is a journey, and while comparisons can be drawn with other new technologies of the past, AI offers the potential for larger-scale disruption.

Skill sets will change, job roles will change, and the resident experience will change. But for an industry that is not known to adapt to technology quickly, it has evolved into a more sophisticated business in a relatively short amount of time, and AI will only further that progression. Guardrails, auditing, and testing are vital risk management tools that every business employs, and this is particularly salient with AI, which, while not new, remains largely misunderstood.
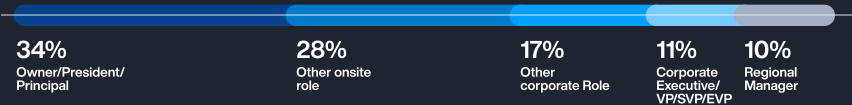
Respondents and Demographics

NAA researchers interviewed 12 rental housing industry professionals, two-thirds of whom were either C-suite or senior-level corporate executives. Their fields of expertise spanned operations, technology, marketing, and finance. Their companies ranged from small, regional operations to large, national firms, and nearly all types of rental housing were covered: conventional, student, age-restricted, affordable, and built to rent.
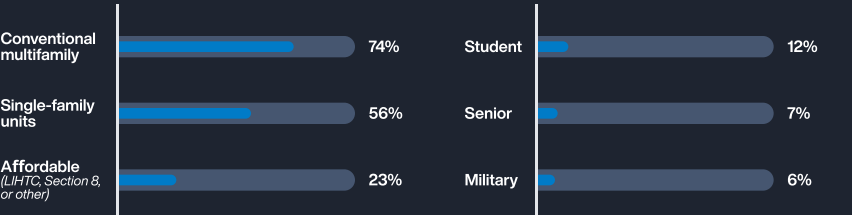
To enrich our analysis, a complementary survey was conducted to further explore perspectives on AI in the rental housing industry. The table below summarizes a detailed demographic breakdown of survey respondents, providing more context for their respective company profiles.

Survey Respondents' Demographics and Company Profiles

Job Titles

34%	28%	17%	11%	10%
Owner/President/ Principal	Other onsite role	Other corporate Role	Corporate Executive/ VP/SVP/EVP	Regional Manager

Company's Focus in the Rental Housing Industry (select all that apply)

Conventional multifamily	74%	Student	12%
Single-family units	56%	Senior	7%
Affordable (LIHTC, Section 8, or other)	23%	Military	6%

About NAA

The National Apartment Association (NAA) serves as the leading voice and preeminent resource through advocacy, education, and collaboration on behalf of the rental housing industry. As a federation of 141 state, local, and global affiliates, NAA encompasses nearly 97,000 members representing more than 12 million apartment homes globally.

About AppFolio

AppFolio is the technology leader powering the future of the real estate industry. Our innovative platform and trusted partnership enable our customers to connect communities, increase operational efficiency, and grow their business. For more information about AppFolio, visit **appfolio.com**.