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**HOW DEMOGRAPHICS,  
PSYCHOGRAPHICS  
AND TECHNOLOGY  
ARE BRINGING  
MULTIFAMILY TO  
THE BRINK OF A  
DESIGN REVOLUTION**

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# INTRODUCTION

We live in an age of disruption. The internet democratized information and shrank the globe. Uber is the world's largest taxi service without owning any vehicles, and Airbnb dominates the lodging industry without property. Currency is going crypto. Technology is transforming business as we know it, and no industry—including apartments—is immune.

On the horizon is a massive wave of demand for apartments that stretches well into the future. In fact, the industry will have to build at least 4.6 million apartments by 2030 just to keep up with demand for apartment living and product.<sup>1</sup> However, anything being designed today won't see its first resident until the early 2020s, forcing the industry to become even more anticipatory, progressive and innovative when it comes to serving the next generation of renters' needs. By 2030, the world's likely going to be a much different place.



**4.6 MILLION APARTMENTS  
BUILT BY 2030**

So, like Alice in Wonderland, multifamily companies need to get “curiouser and curiouser” to catch up with the revolutions already well under way in everything from transportation and retail to demographics and psychographics. It's later in the game than most people think, and multifamily may already be behind the power curve. Just 17 percent of Americans say “innovative” describes apartments very well, according to results of NMHC's 2018 Consumer Housing Insights Survey.<sup>2</sup>

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**“If you look at other industries in real estate—office, hospitality, retail, and you're starting to see restaurants—they've all been disrupted,” says National Multifamily Housing Council Vice President of Industry Technology Initiatives Rick Haughey.**

**“Why should we think we're exempt from this disruption? If you're not thinking about it and talking about it, you're at risk of being displaced.”**

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**To that end, NMHC has identified the following trends as the major game changers for multifamily moving forward. These tectonic shifts are poised to radically reshape our customers' expectations and experiences, as well as multifamily's approach to designing, developing and operating our communities.**

# TECHNOLOGY

## CHAPTER 1



## ROBOTS RULE

Given the giant steps forward in robotics and artificial intelligence, technology will become part of the core design of apartment communities rather than an add-on accessory or appliance.

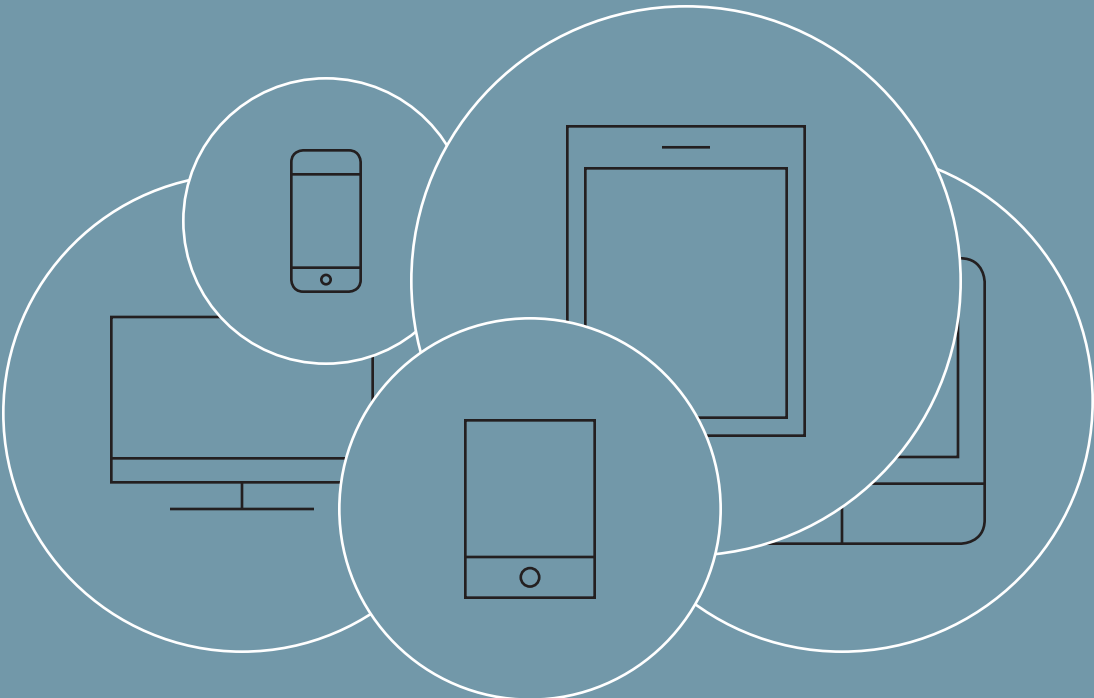


# P

Perhaps nothing is rocking the world more than data science and artificial intelligence (AI). Doubling in speed and power every year, they're revolutionizing everything from healthcare to manufacturing and penetrating deeply into the way Americans eat, sleep, work and play.

By 2020, technology research firm Gartner predicts 26 billion devices will be connected through the cloud-based Internet of Things (IoT), capturing enormous amounts of nuanced data—five times the data being generated today, according to a CenterSquare Investment Management white paper, “Dynamic Disruption: Technology Reinvents Real Estate.”<sup>3</sup>

## By 2020, 26 billion devices will be connected to the cloud, capturing 5x the data being generated today.



Already, 11 billion sensors have been embedded in everything from thermostats to ingestible pills; the World Economic Forum’s Global Agenda Council on the Future of Software and Society predicts that by 2022, 1 trillion sensors will be interfacing in real time with other devices on the grid, as well as corporate systems, to make products “smart.”<sup>4</sup>

In apartments, smart home technology allows residents to remotely control everything from lighting and appliances to entry security. The technology is becoming so sophisticated that many systems report their own maintenance needs and use algorithms to order replacement light bulbs or eggs before they run out.

But that’s really just the tip of the iceberg. “Smart homes are great for residents, but the technology is even better for operators,” says Shawn Mahoney, chief information officer at Boston-based GID, which counts more than 21,000 apartment homes in its portfolio.<sup>5</sup> Smart technology allows building engineers to monitor, control and constantly analyze all aspects of the building from anywhere, resulting in faster identification and response to systems issues as well as better problem prevention and property performance.



But while sensors are getting better at collecting more and varied data, computers and robots are taking even bigger leaps forward in analyzing and interpreting data, effectively learning from it and even predicting future results. Tasks that used to require human intelligence, like speech recognition or decision-making, are being successfully turned over to machines. Just ask Siri or Alexa.

A ton of capital, both investment and R&D dollars, is being poured into AI. Estimates on the growth of the AI market run the gamut, but some suggest it could be as much as a \$126 billion market by 2025.<sup>6</sup>

As these technologies become not only more ubiquitous but also more interactive, they will become an even bigger part of consumers’ lives, transforming how people live, work, shop and play.

Donald Davidoff, president of D2 Demand Solutions, a multifamily sales consultancy, calls AI “the single biggest change that will affect us” and likens the impact on white-collar workers to what happened to blue-collar workers during the Industrial Revolution. Big data is proving an irreplaceable tool as apartments harness it to better understand and cater to residents and potential residents.

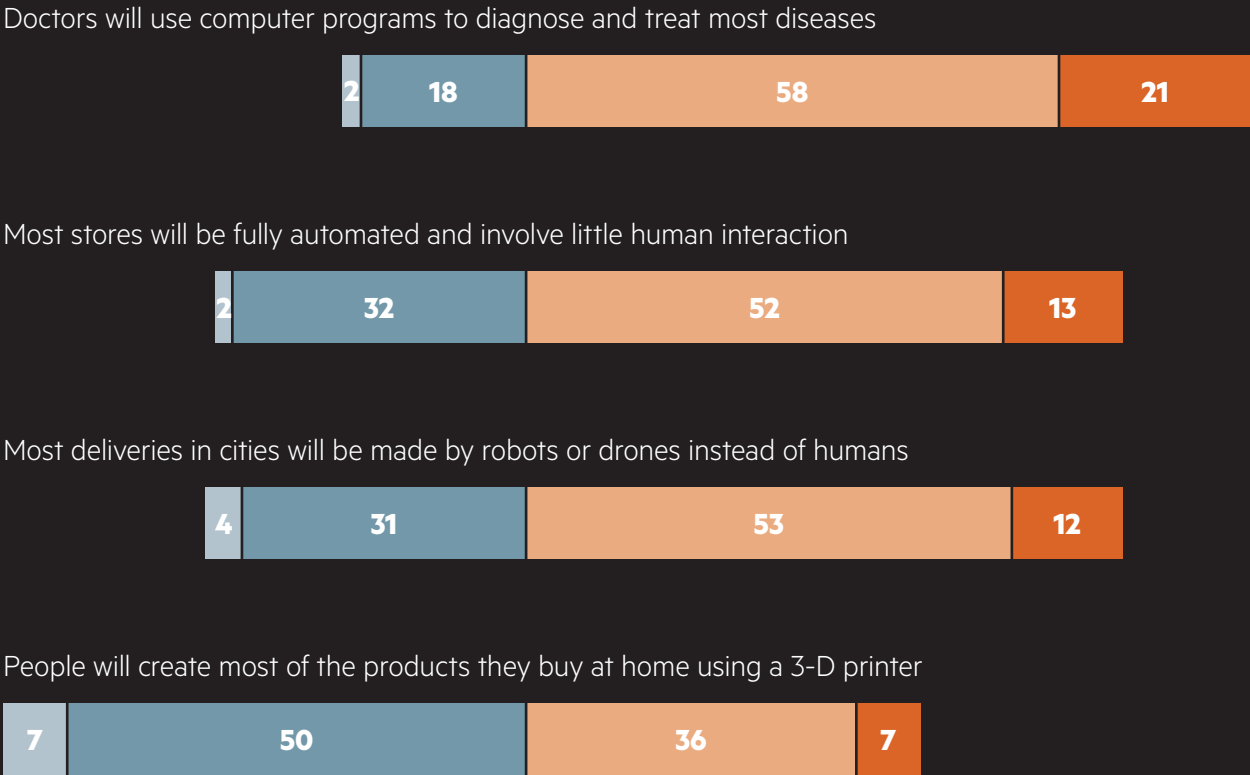
“AI will affect chatbots, pricing, search, lead-scoring models, how we interact with customers and predictive analytics we haven’t even thought of,” he says of the effect on the multifamily industry. “It will be pervasive. I can’t think of anything it won’t touch.”

THE FUTURE OF AUTOMATION

DEFINITELY WILL NOT PROBABLY WILL NOT PROBABLY WILL DEFINITELY WILL

Source: Pew Research Center, “Automation in Everyday Life” (October 2017)

Percent of U.S. adults who say the following \_\_\_\_ happen in the next 20 years:



Note: Respondents who did not give an answer are not shown. Survey conducted May 1-15, 2017.

# MARKETPLACE

## CHAPTER 2



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## ALL THE FEELS

As real-time and personalized purchasing experiences become the norm, a lifestyle-focused apartment is as important as location and layout.

# H

Hyper-informed and empowered by a tsunami of personalized, networked data, today's consumers control their own destinies and expect immediate gratification 24/7—and that will become exponentially apparent as younger generations influenced by “friends” around the globe take command of consumption.

Author and radio personality Jim Blasingame declared several years ago that we had entered The Age of the Customer as the convergence of micro-computers and high-speed internet gave consumers immediate access to abundant information that's not controlled, filtered or distributed by sellers. With cloud, mobile, social, and AI technology now at their fingertips, consumers have more choices than ever—and they have no problem going elsewhere if service isn't superior.

That shift in the balance of power has never been more acutely felt, as businesses strive to not only deliver an experience along with their goods or services but one that's accessible wherever, whenever. If experts are correct, 90 percent of the U.S. population will connect to the grid via smartphones by 2023, and they will expect the companies they interact with to know their preferences and anticipate their next moves, even before they do.<sup>7</sup>

Salesforce.com polled more than 7,000 consumer and business buyers for its 2017 “State of the Connected Customer” report and found four core elements of the new baseline customer experience: immediacy, personalization, consistency, and anticipation. The survey found that 72 percent of consumers and 89 percent of business buyers expect companies to understand their unique needs and expectations, 66 percent of consumers are likely to switch brands if they're treated like a number, and 70 percent said technology makes it easier than ever to do so.<sup>8</sup>

In that case, customer loyalty may very well be dead, and companies that aren't dominating consumers' screen time or making their lives more convenient will lose in what Silicon Valley sage Ray Wang, founder of Constellation Research, calls today's “attention economy.”<sup>9</sup>

NMHC's recent survey results support that assumption, as nine out of 10 survey respondents (92 percent) said convenience was important to them.

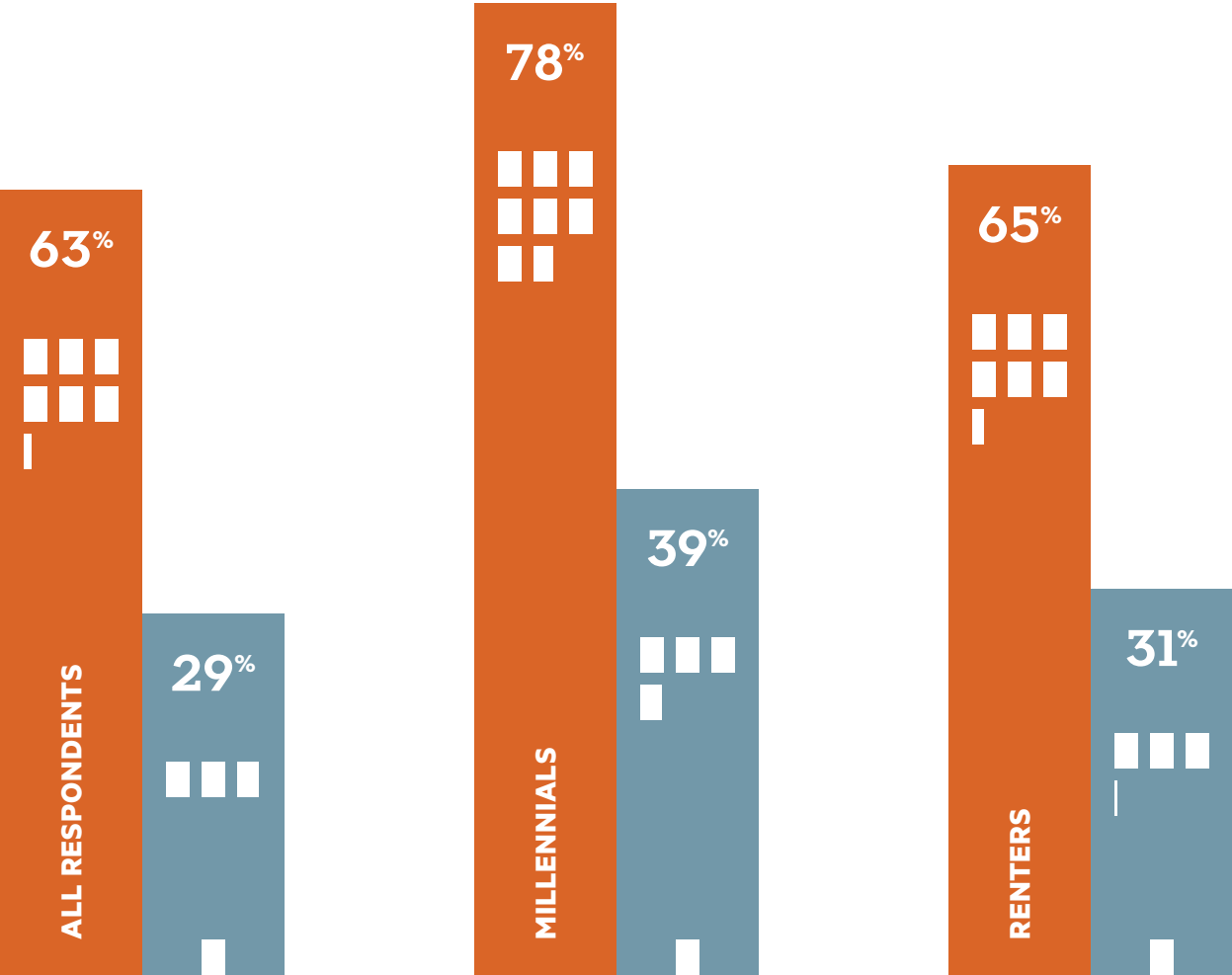
**Nearly two-thirds (63 percent) also agreed that their lives were so hectic that they look for ways to make things easier.**

## DO YOU AGREE WITH THIS STATEMENT?

■ YES ■ NO

Source: National Multifamily Housing Council, “2018 Consumer Housing Insights Survey” (January 2018)

My life is so hectic that I look for ways to make it easier for me.





# T

This new dynamic, according to Forrester Research, is placing “harsh and unfamiliar demands on institutions, requiring changes in how they develop, market, sell, and deliver products and services.”<sup>10</sup> Companies that aren’t leveraging big data in creative and proactive ways are goners.

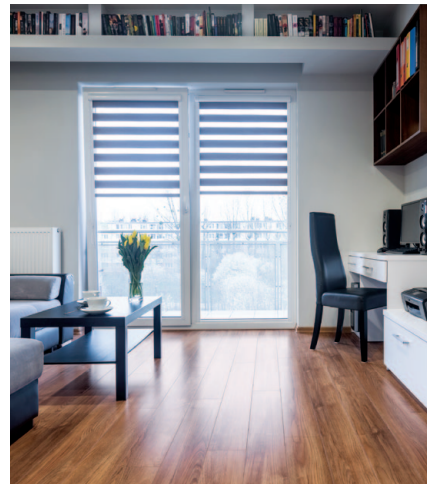
In the here and now, the multifamily industry largely knows what their customers want—and that connective technology is increasingly important. For example, NMHC recently published the results of the largest survey of apartment renters ever—more than 272,000 residents participated—and found that renters ranked amenities and features like parking, pools and fitness centers, along with in-unit washers and dryers and dishwashers, behind reliable cell reception and hi-speed internet.<sup>11</sup>

However, anticipating our residents’ needs for tomorrow is more challenging. There’s no doubt that technology will continue to be a big determinant in the future value of apartment living.

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**As Robert Lathan wrote in a recent article in the *Cornell Real Estate Review*, “If the current trends are any indication of the future, it’s clear that the service offerings of connectivity and flexibility through technology will continue to develop.” He added:**

**“Multifamily customers often exhibit the same needs and desires of homeowners, and if the sector can continue to deliver improvements that bridge the gap, the value proposition of renting versus owning increases. Technology has, and will continue to play, a part in a large part of these gains.”<sup>12</sup>**



But beyond just being a conduit for connective technologies, the question is how can apartment communities be more reflective and adaptive to many of these macro trends that are redefining customer experience and satisfaction? We have a few clues.

In NMHC’s recent consumer insights survey, respondents were asked to think about their own lifestyles and how important certain housing features were to them. Ninety-four percent of respondents said that being able to personalize their space was important. Eighty-three percent stressed the importance of having space that evolves with different stages of their lives. Similarly, more than three-quarters (78 percent) said they valued having a convertible space that could transform to meet different needs.

The upshot: Similar to technology, apartment spaces also need to be more personalized, flexible and adaptable to changing lifestyles and needs.

# PEOPLE

## CHAPTER 3



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## DEMOGRAPHICS IS DESTINY

A one-bedroom has long been the hallmark of the apartment industry, but in the coming years, apartment communities will have to serve a greater variety of households and housing needs.



# M

Millennials, millennials, millennials.

Young people have historically been the age group most likely to rent, and their sheer mass today is impressive. The 73 million Americans that are 18- to 34-years-old are comprised overwhelmingly of the generation known collectively as millennials. Members of the largest living generation value mobility and have continued to marry and settle down later and later, keeping them in the rental zone longer.<sup>13</sup> Moreover, 23 million of them are still sitting snug in their parents’ basements, unwilling or unable to launch from the nest, suggesting that there’s still a whole bunch of millennial housing demand still sidelined.<sup>14</sup>

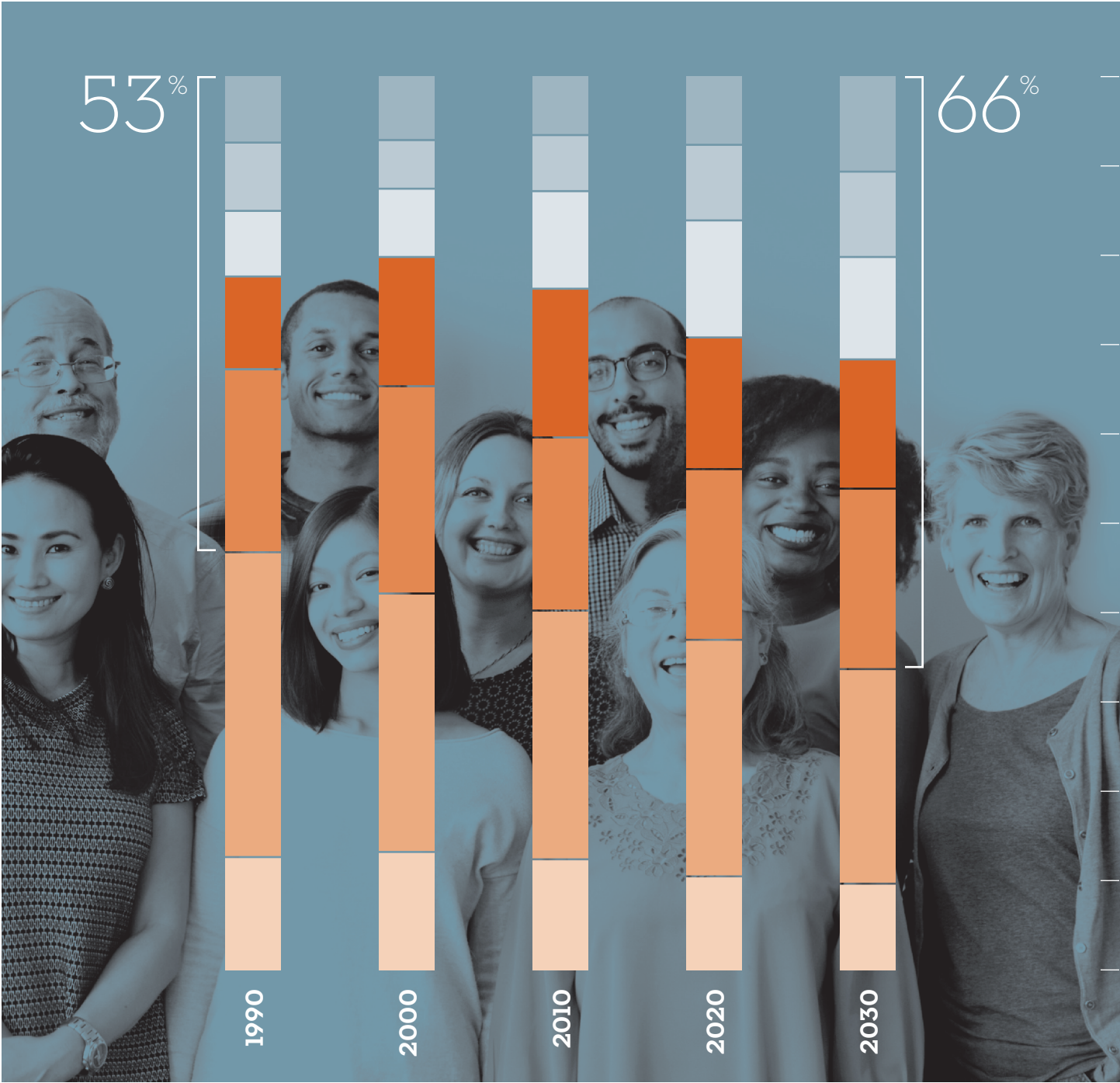
For these reasons and more, it’s easy to see why apartments are swiping right for this crowd. But targeting only the self-described “greatest generation” would be a mistake. Aging baby boomers and immigrants will have just as much—if not more— influence on rental demand down the road.

The U.S. population is getting older and more diverse, and 20 years from now, millennials will be in their late 30s and 40s. This will likely mark a different phase in their life cycle, with many arguably turning to homeownership for their housing option of choice. With millennials set to enter prime non-rental zone, the apartment industry should be studying the expanding bubble of aging Americans—65 percent will be 35 or older in 2030—and immigration trends instead.

## OUR POPULATION IS GETTING OLDER

UNDER 25
 25-34
 35-44
 45-54
 55-64
 65-74
 75+

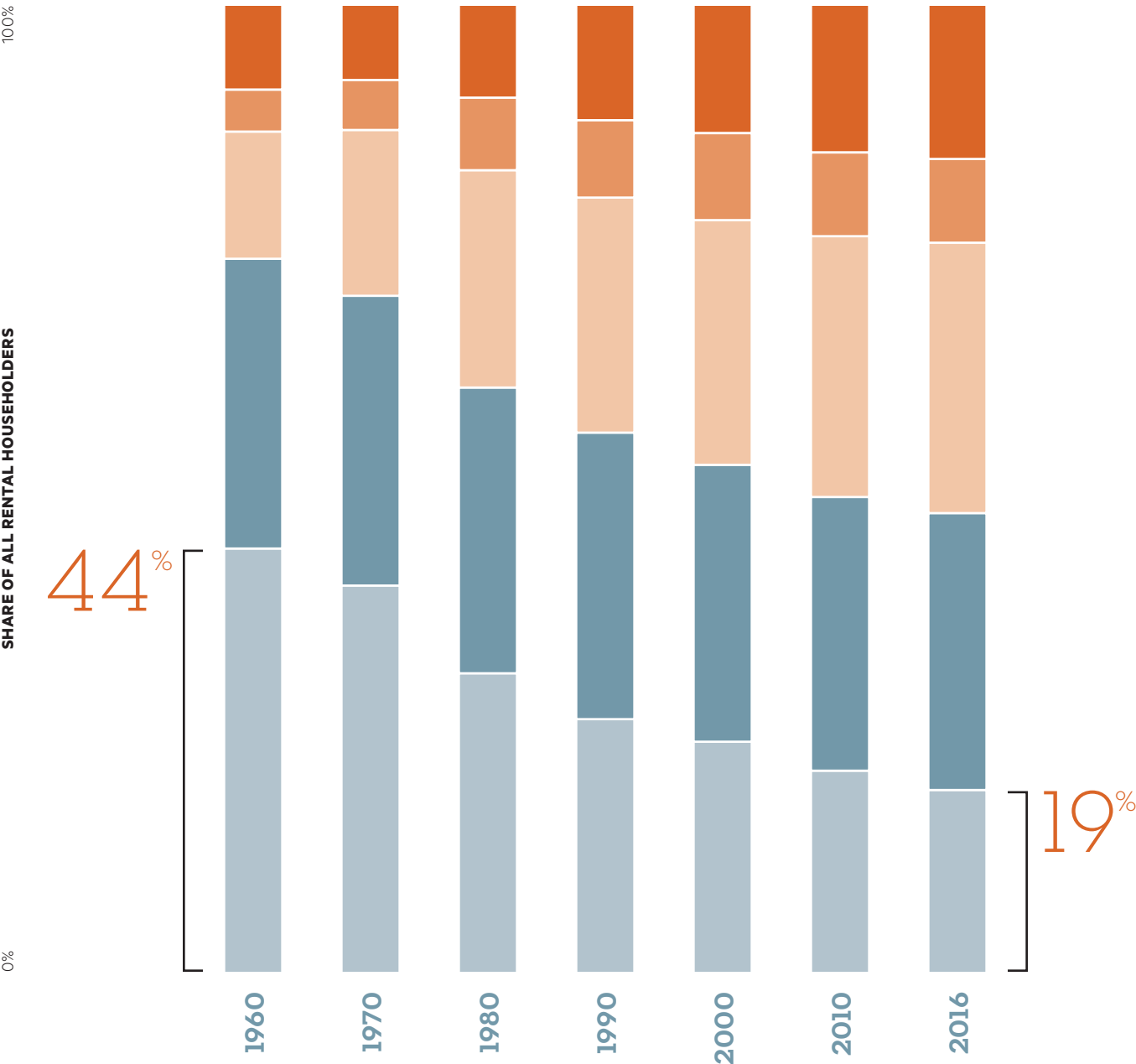
Source: Current Population Survey microdata; Joint Center for Housing Studies



OUR HOUSEHOLDS ARE CHANGING SHAPE

MARRIED COUPLES WITH CHILDREN MARRIED COUPLES WITHOUT CHILDREN  
LIVING ALONE SINGLE PARENT OTHER

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement (1970 -2016)



The 73 million baby boomers in the United States accounted for 58.6 percent of the net increase in renter households between 2006 and 2016, according to NMHC tabulations of U.S. Census data.<sup>15</sup> As they downsize from larger homes to apartments, they’ll need different amenities than possession-hating hipsters seek. They may need larger units or more creative storage solutions. They may also need different spaces for socializing or entertaining.

Aging boomers also want to be near doctors, say multifamily experts, and there’s been a surge in multifamily and mixed-use projects around health clinics and teaching hospitals.

When 65 percent of the population is 35 and older, fewer Americans will be in their childbearing years, paving the way for immigration to add more people than internal births. In some states with slow-growing populations, like Michigan, West Virginia and Maine, immigration has already led population growth, eclipsing annual domestic births. By 2024, immigration will surpass internal population growth for the first time, according to Hoyt Advisory Services’ research. Hispanic households alone are expected to account for 55 percent of population growth.

Immigrant households are more likely to rent and more likely to rent longer. And their family size tends to vary, with some groups favoring having larger families. For example, more than half (53 percent) of all immigrant households from the Middle Americas region have four or more people, according to NMHC tabulations of government data.<sup>16</sup> Together, these trends suggest a strong future for demand for not only rental housing in general but product that can accommodate larger families and multigenerational households—and be affordable to boot.

“Single housing rental units and larger apartment units will observe the most demand pressures from this demographic trend,” the report states. “With lower-than-average income, rental unit affordability stress suggests that low-amenity larger units will be in very high demand for some time.”

These shifting demographics are driving some product diversity in the marketplace already. Luxury or affordable, furnished or unfurnished, shared living or micro units, short-term leases or multi-year leases—apartments come in almost every flavor. Whether the availability of each option matches the degree of demand is debatable.

For an industry whose bread and butter has long been a single person looking for a one-bedroom apartment, this wellspring of future demand will challenge the traditional economics, planning and design. Working around those well-entrenched assumptions will require new approaches and innovation.



# EMPLOYMENT

## CHAPTER 4



## REMOTE CONTROL

Mobile technology and the growth in non-traditional jobs are disrupting where and how and for how long people work, impacting their housing decisions.

# H

Home is increasingly where the job is. Thanks to mobile technology, cloud computing and ever-expanding internet connectivity, people are increasingly able to work from home, the road, or really anywhere.

Already, 43 percent of workers in America do some telecommuting, according to Gallup—and more would if they could. The same survey found that 37 percent would switch jobs if they could work offsite.<sup>17</sup> On the flip side, the number of companies offering telework options has tripled, from 20 percent to 60 percent, since 1996.<sup>18</sup>

Beyond these remote work trends, there are other big shifts happening in the workplace that are making the days of sitting in a cubicle farm working a 9-to-5 shift for the next 20 years seem numbered.

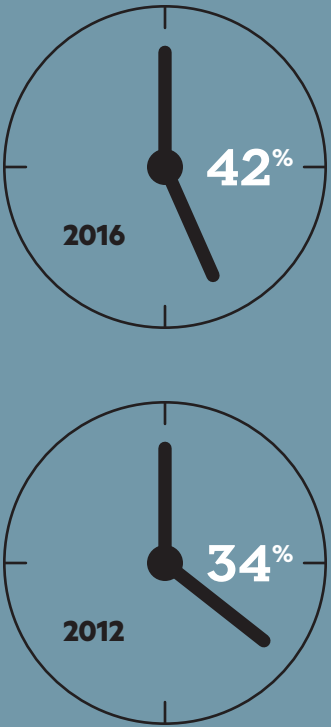
In the past decade, there's been a 50 percent jump in offline alternative work (think independent contractors, on-call workers, temps, etc.).<sup>19</sup> The rapid rise of the so-called "gig" economy is also creating entirely new types of jobs (hello, Uber driver or Task Rabbit) and giving people opportunities to supplement their incomes by doing things like peddling unwanted items on Craigslist or selling handmade wares on Etsy. Moreover, people, whether out of necessity or desire, are working later in life, making their retirement years productive years.

In response, shared office space is booming in the wake of remote-work growth. Led by companies like WeWork and MakeOffices, coworking has evolved from a fringe movement that didn't exist a decade ago to "a subset of the real estate industry, where the relevant metric is revenue per square foot," according to an OpenWork Agency white paper.<sup>20</sup>

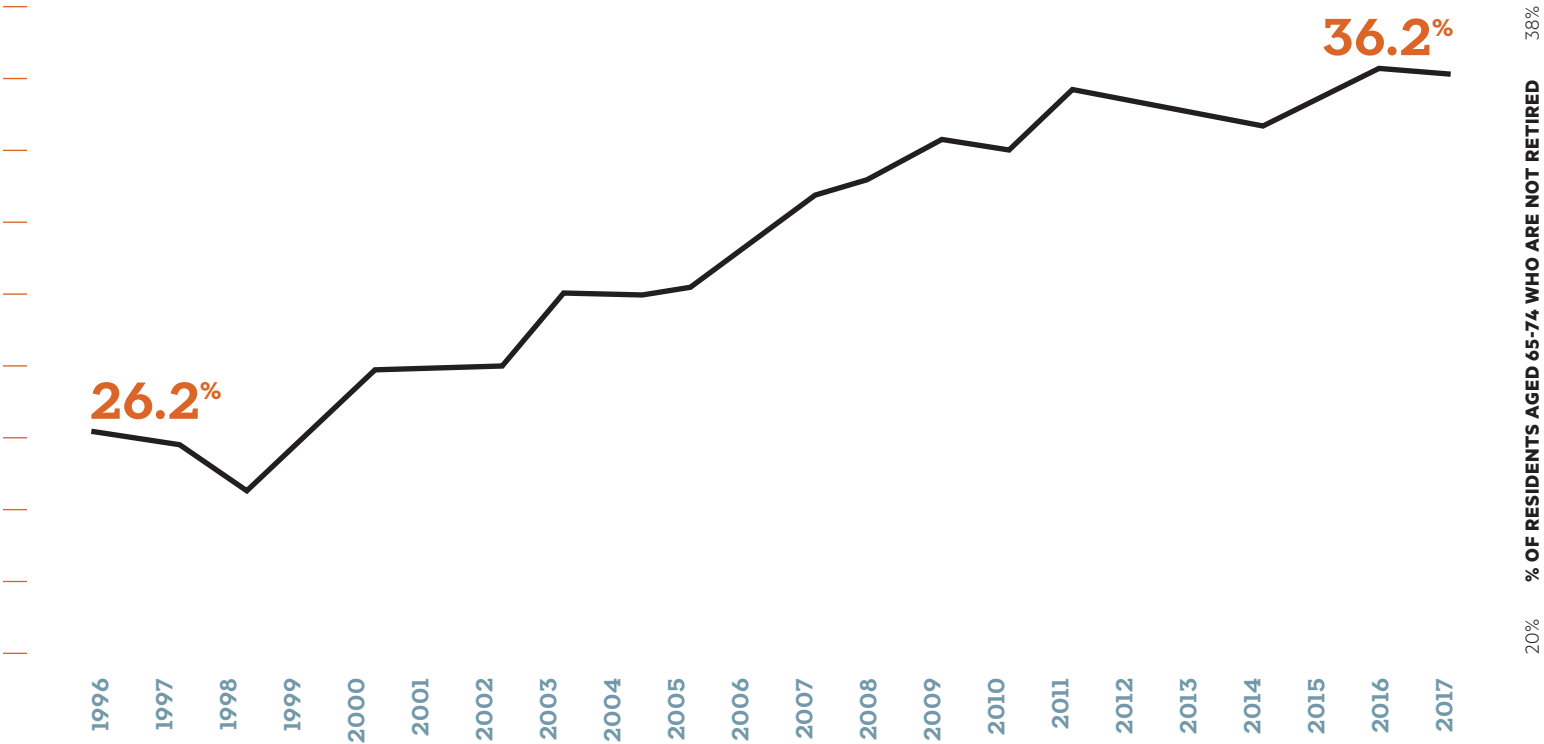
Roughly 43 percent of respondents to a recent Gallup survey said they worked remotely at least some of the time. But it's not just that more people are working remotely. They are also spending more of their time doing so.

Source: Gallup, "State of the American Workplace" (2017)

EMPLOYEES  
TELEWORKING  
MORE THAN  
60% OF  
THE TIME



## PEOPLE ARE WORKING LATER IN LIFE



Source: NMHC tabulations of Current Population Survey microdata, Annual Social and Economic Supplement, U.S. Census Bureau

Early adapters have become an early majority. Small Business Labs found that more than 1 million people sought enhanced social experience, networking, community support, and learning opportunities in co-working spaces in 2017.<sup>21</sup> Emergent Research expects the number of coworking spaces to increase from 11,000 in 2016 to 26,000 in 2020 and predicts a 77 percent increase in the average number of members per space over the next four years.<sup>22</sup>

"We think it's reasonable to believe coworking could be bigger than Starbucks," reports SmallBusiness.com. "Interestingly enough, by 2020 some Starbucks stores might be considered co-working spaces."<sup>23</sup>

With 40 percent of respondents to NMHC's recent consumer housing insights survey saying they plan to telecommute more in the future,<sup>24</sup> apartment buildings need to provide "better spaces for people to work," says NMHC Vice President of Industry Technology Initiatives Rick Haughey.

Owners and operators are taking note, turning outdated conference and party rooms, lobbies and other under-utilized spaces into lush, high-tech coworking lounges with computer bars, shared work tables, comfortable seating and coffee stations. The old home office, typically crammed into a den or spare bedroom, is also likely ripe for a makeover, as people increasingly need flexible yet professional-grade space to work and create.

But more fundamentally, these changes suggest that people are no longer following a traditional employment lifecycle, and that departure will undoubtedly affect their housing priorities, preference and, ultimately, decisions.

# TRANSPORTATION

## CHAPTER 5



## THE UNPAVING OF PARADISE

Massive tech advancements are eroding our reliance on personal vehicles, leaving apartment communities to figure out how to adapt to a fluctuation in parking needs going forward.

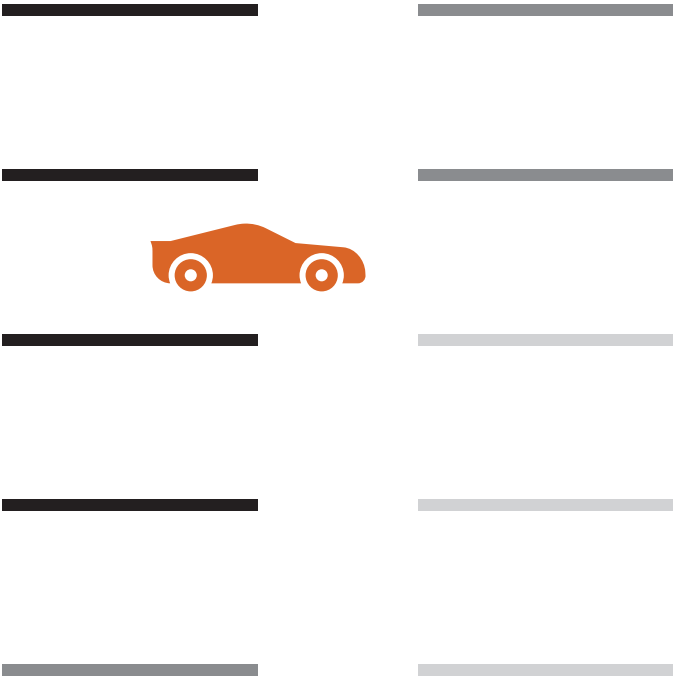


# W

We are on the cusp of “one of the fastest, deepest, most consequential disruptions of transportation in history,” author and thought leader Tony Seba writes.<sup>25</sup> By 2030, autonomous vehicles (AVs) will likely handle 95 percent of passenger miles driven in the United States, predicts independent research group RethinkX.<sup>26</sup>

Though experts and forecasters can argue about whether it will happen that soon, no one questions the decline of human-driven, gasoline-powered automobiles—and that’s good news for an industry that spends an average of \$35,000 per space to park them.<sup>27</sup>

**It may not seem like it when you’re trying to find a spot near the market, but America has far more parking spaces than it needs—three to eight per vehicle, according to the University of California.**<sup>28</sup>



Most cities set parking minimums (usually one or more spots per residence) for developments, which the Urban Land Institute has found are the number-one barrier to building affordable rentals.<sup>29</sup>

Many of these spots go unused. A Center for Neighborhood Technology survey of residential lots in Seattle, San Francisco, Washington, D.C., and Chicago found one-third of the spots vacant between midnight and 4am, when most residents should be home.<sup>30</sup>

In efforts to reduce the cost of housing, cities like Seattle, Denver, Minneapolis, Boston, San Francisco and New York are reducing parking requirements—and more jurisdictions could follow suit given the expected growth in autonomous vehicles.

Niles Bolton, principal of Niles Bolton Associates, says cities like Atlanta, his home base, are considering limiting the amount of parking spaces they’ll let developers build as they “are finally becoming aware they don’t need all this parking.” The trouble, he says, “is lending institutions still don’t think you can rent without a parking space or two per unit.”

And there’s some truth to that, as parking remains near the top of renters’ wish lists. Eighty-eight percent of renter respondents to NMHC/Kingsley’s resident preferences survey said secure parking is important to them when considering where to rent. And of those, nearly three-quarters (71 percent) said they wouldn’t rent without it.

But car dependency is definitely under siege, particularly in dense urban areas. As traffic becomes more unbearable, downtown areas are becoming more walkable, and transit-oriented development is being billed as smart development. Moreover, ride-hail and ride-share services are becoming pervasive, even in America’s smaller cities. And delivery services like Amazon Fresh and FreshDirect make grocery delivery a breeze, reducing runs to the store.

Further evidence of challenges to America’s long-held car culture exist. Millennials, for example, are applying for fewer drivers licenses and own fewer cars than past generations. And the ride-share industry is booming; Goldman Sachs predicts it will balloon to \$285 billion by 2030.<sup>31</sup>

“The rise of ride hailing and the pending arrival of driverless cars will combine to be the biggest change in real estate in some time, maybe since the arrival of the auto itself,” Green Street Advisors Managing Director Dave Bragg told *Crain’s Chicago*.<sup>32</sup>



As the unpaving of paradise accelerates, as much as **75 billion square feet of parking space** stands to be eliminated, leaving open the question of what will happen to that space in the future.<sup>33</sup>

Today, some apartment operators are using apps like Whereipark and ParqEx to match up empty spots with parkers from the surrounding community, but resident privacy and security are issues. Developers are also looking at building parking garages that can be turned into office space or more apartments and renovating existing structures to accommodate people, not cars, in what Stephen Davis, vice president of development for Boston-based Davis Cos., calls “creative destruction.”<sup>34</sup>

“We’re getting rid of excess parking, taking out some levels, and then using it as a building podium,” he told *Multifamily Executive*. “I think that’s an interesting snapshot of the change in the urban setting and vehicle use in general.”<sup>35</sup>



# SHOPPING

## CHAPTER 6



## RETAIL REVOLUTION

Traditional retail looks to be heading toward a serious upheaval, leading apartment communities to consider how new models can best be incorporated on site.



The Atlantic called it “The Great Retail Apocalypse of 2017,” as a spate of major retail bankruptcies flew in the face of rising spending and GDP growth.<sup>36</sup> And signs point to it only getting worse. With major brick-and-mortar retailers like Macy’s, Sears and J.C. Penney shuttering hundreds of stores, one in four malls is at risk of losing its anchor store. Up to half of the 1,100 malls in the United States could close in the next 15 to 20 years.<sup>37</sup>

**E-commerce is without a doubt the Che Guevara of this revolution.** Its growth is expected to outpace that of the broader retail industry three times over in 2017 alone.<sup>38</sup> Online giant Amazon leads the upheaval, with its North American sales growing from \$16 billion in 2010 to more than \$89 billion in 2016. More than half of all U.S. households now subscribe to Amazon Prime, according to Consumer Intelligence Research Partners.<sup>39</sup>

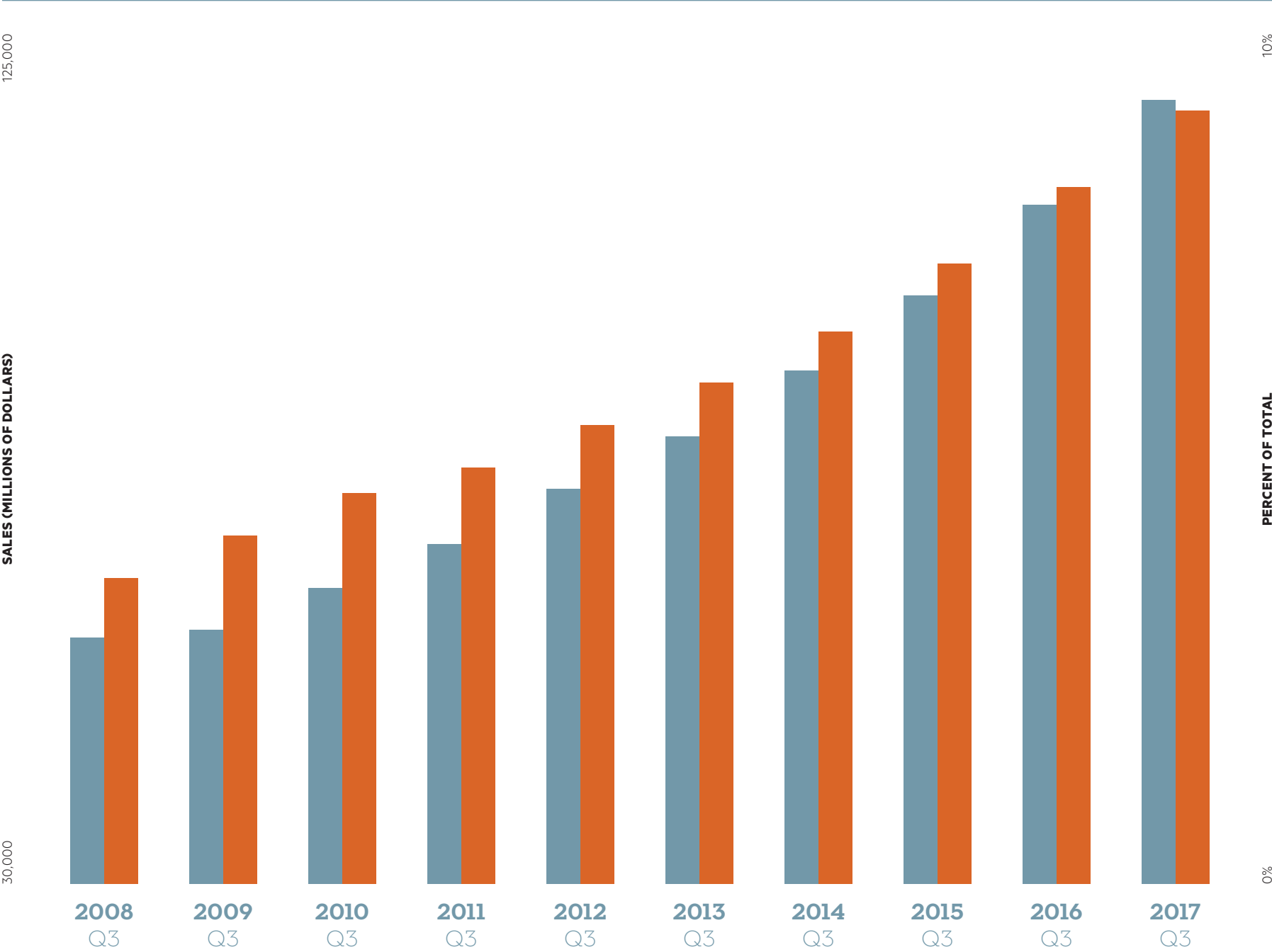
Cyber Monday sales have been on a tear, reaching a record \$6.6 billion in 2017 and marking a 17 percent year-over-year jump in sales.<sup>40</sup> But if you think that is good, the same month, Chinese e-commerce behemoth Alibaba shipped a record-breaking \$25.3 billion worth of goods during Singles Day, a cultural phenomenon and online shopping extravaganza that included global celebrations, one-hour delivery and the conversion of nearly 100,000 stores across China into “smart stores” that processed payment using facial recognition.<sup>41</sup>

But where brick-and-mortar retail centers might still be winning are in #happyhour and #foodporn. Sales at food services and drinking places have grown twice as fast as all other retail spending; Americans spent more money in restaurants and bars than at grocery stores for the first time in 2016.<sup>42</sup>

## ONLINE SHOPPING ON THE RISE

■ E-COMMERCE SALES  
■ E-COMMERCE AS A PERCENT OF TOTAL RETAIL SALES

Source: The Census Bureau of the Department of Commerce



With a strong nod to the rise of the experiential economy, pop-up retail is also fast becoming the “it” thing in the space right now. Consumers love the here-today-gone-tomorrow nature of pop-ups, which offer a unique shopping experience, and successful pop-up executions have been able to command premiums on per square foot rents. But the ephemeral retail concept upends the industry’s traditional five- to seven-year leasing model, making a major mindset change a prerequisite for success.

**As exponential technologies and disruptive movements reshape all things shopping, brick-and-mortar retail’s dizzying free fall presents both challenges and opportunities for apartments.**

Some of the big hurdles will be handling the logistics of a shifting shopping economy that focuses on on-demand delivery of goods. Communities and staffs must be reconfigured to handle package traffic, hot and cold food delivery, rotating rosters of retail tenants, and maybe even delivery drones or 3-D printing.

But there’s also a lot of opportunity in all that bloated retail square footage. It’s prime pickings for land-strapped developers to repurpose into a widening variety of uses. More and more municipalities require mixed-use components in new developments, combining living, shopping, dining, e-commerce pickup centers, medical facilities and the like. But moving forward, additional experiential offerings are likely to be a critical part of the mix.<sup>43</sup>



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### BALANCING ACT

A growing consumer emphasis on 360-degree wellness means built environments like apartments will be valued for their contributions to physical, social and emotional health.



F

Fitness centers have been among the most-wanted amenities in apartment buildings for some time, but renters got over basketball courts and gyms where *People* magazine and CNN were the only entertainment for the lonely treadmill runners years ago.

Today, health and fitness have evolved into a more comprehensive concept of wellness, where body, mind and soul should be exercised.

People want facilities with machines that record, analyze and share their performance and progress and the bandwidth to hook them up with far-away friends (or even holograms) for networked SoulCycle sessions.

At the same time that they want to get the biggest sweat for the buck, they also want more relaxed areas to blow off steam, tap a creative vein or unplug and meditate.

PERCENT OF RESPONDENTS THAT AGREED WITH THE FOLLOWING STATEMENTS

■ YES ■ NO

Source: National Multifamily Housing Council, "2018 Consumer Housing Insights Survey" (January 2018)



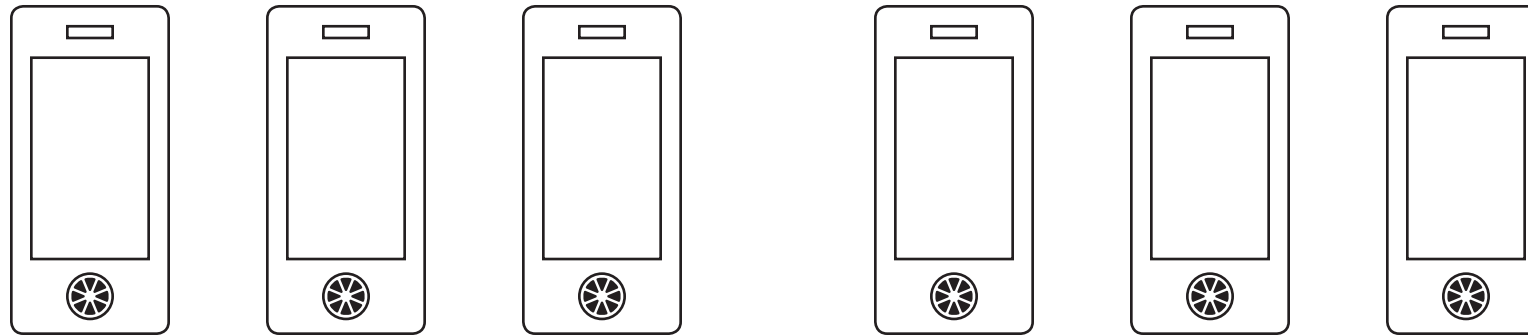
Boomers planted the seeds of this ethos, and millennials have given it their own, more extreme spin. Wellness is now a mindset that goes well beyond health and extends well into sustainability and social and environmental justice. This means there's a value, even if just judgmental, in everything from access to natural light to eating organic, ethically sourced food to supporting companies that pay fair wages.

Whether they're healing themselves with herbs, sourcing raw milk from the local dairy or FitBitting their every step, nearly every American has one thing in common: They're more stressed than ever—and their digital devices are largely to blame.

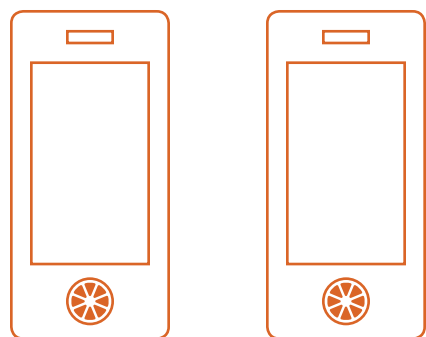
On average, people around the globe check their phones 47 times a day. However, that number skyrockets to 86 times a day for younger people (those 18 to 24 years old).<sup>44</sup> And those may be conservative estimates, given that checking their devices is typically one of the last things people do at night and one of the first they do in the morning.

While many credit their phones with contributing to a better work/life balance and helping maintain a solid social and emotional network, constant connection is also driving people crazy. But they won't—or can't—unplug.

In a 2017 survey by the American Psychological Association, nearly nine out of 10 people (86 percent) who say they constantly or often check their emails, texts and social media accounts report higher stress levels.



**Sixty-five percent of people said they believe periodic “digital detoxes” are important for mental health; but just 21 percent actually took them.”<sup>45</sup>**



This need for retreat, rebalancing and rest is the driving force behind the yoga studios popping up on seemingly every corner, the proliferation of DIY mobile meditation apps (Headspace alone has had more than 11 million downloads),<sup>46</sup> and the growth of the \$49.5 billion global sleep-aid industry.<sup>47</sup>

For the apartment industry, responding to this movement means providing enough sanctuary space to counterbalance digital and social connectivity. Square one is going to be cracking the nut on sound attenuation, as 91 percent of renters say soundproof walls are important to them.<sup>48</sup>



# SPACES

## CHAPTER 8



## BLURRED LINES

The sharing economy is chipping away at the divide between public and private space, requiring tomorrow's apartment communities to be more integrated into the fabric of the community at large.



# A

At the 2016 World Economic Forum, Danish Parliamentarian Ida Auken launched a discussion about the pros and cons of technological development titled “Welcome to 2030. I own nothing, have no privacy, and life has never been better.”

In Auken’s futuretopia, clean energy powers automated delivery of goods, which have become services, and all space is efficiently shared, so a bedroom could be a boardroom while the occupant is away. The deep algorithm knows consumers’ tastes better than they know their own. “I know that, somewhere, everything I do, think, and dream of is recorded,” Auken writes. “I just hope that nobody will use it against me.”<sup>49</sup>

Every year Auken’s vision of an economy in which no one owns anything (heaven or hell, depending on your perspective) becomes more prescient. With millennials leading the way, Americans are increasingly willing to lend and borrow assets and services through connectors like Uber and Airbnb. They’re sharing everything from rides to bikes to wifi to spare bedrooms, and Statista reports that the number of adults who use sharing-economy services is expected to grow from 56.5 billion in 2017 to 86.5 billion in 2021.<sup>50</sup>

Fueled by smartphones and cloud computing, this “collaborative consumption” is especially popular with younger consumers. Nearly 40 percent of 18- to 24-year-old U.S. workers profited from the sharing economy in 2015, compared with about 10 percent of 45- to 54-year-olds and less than 5 percent of 55- to 64-year-olds, according to *Bloomberg*.<sup>51</sup>

Housing is far from exempt from this fomentation. In November 2017, Ikea’s external innovation lab, Space10, launched One Shared House 2030, an online platform for researching and developing shared-living concepts that could solve housing problems including affordability and loneliness. The open-source collaborative survey is necessary, says Guillaume Charny-Brunet of Space10, because “in the context of booming urbanization, rocketing housing prices, shrinking living spaces, and increasing social disconnects, ‘sharing’ will be ‘caring’—more than ever.”<sup>52</sup>

This collaborative consumption model is expanding into other sectors as well. For example, WeWork, the \$1.7 billion company that pioneered the coworking concept, bringing coworking spaces to more than 100 cities and more than a dozen countries, not only expanded its We franchise to include two WeLive coliving spaces but also, most recently, WeGrow, a private elementary school in New York.

People today are looking at spaces not only as serving a function but also as providing an experience. And the apartment industry is beginning to get that.



“You see this in many new mixed-use developments, where there are public greens for farmers markets, outdoor exercise, movie nights, or spaces for pop-up stores and community gatherings. Creating a sense of greater community may be a meaningful point of differentiation valued by many renters,” says Karen Hollinger, vice president of corporate initiatives at AvalonBay Communities.

AvalonBay is the fourth largest apartment owner with nearly 75,000 units under its mantle and a top multifamily developer, breaking ground on 2,700 new apartments last year.<sup>53</sup>

As collaboration and community join convenience as core concepts in development, the hard line that used to exist between public and private space as soon as you stepped through the front door of an apartment community is becoming much more fluid. Safety and security are still priorities, but many apartment residents are growing more accepting of public participation and shared access of what had previously been considered totally private space.

We see this in high relief in the current debate over home sharing, or short-term rentals à la Airbnb or HomeAway, at apartment communities. While some residents and apartment firms remain staunchly opposed to the concept, others see it as a cutting-edge amenity. And the divide is significant.

According to results of the most recent NMHC/Kingsley Associates Renter Preferences Report, nearly half (49 percent) of respondents under 25 said they are interested in having an opportunity to earn extra income by listing their apartments on short-term rental sites while roughly a third (32 percent) of apartment dwellers over 65 reported they wouldn’t rent in a community that allowed short-term rentals.<sup>54</sup>

But the same kinds of questions and debates are percolating around on-site coffee shops, fitness centers, coworking spaces, daycares and such that might also serve a larger public audience. In the future, apartment design, operation and programming will have to reflect greater permeability between public and private space.

# TAKEAWAYS

## 8 WAYS APARTMENT DESIGN IS SET TO CHANGE

The world as we know it is changing, ushering in big shifts in the way people approach nearly every aspect of their lives. At the intersection of all these upheavals in technology, commerce, family, work, transportation and lifestyle is housing.

Housing used to be considered a commodity of sorts, a product designed to fulfill a basic need and largely selected by budget; today there's much more emotional value attached to it. Housing is becoming much more reflective of how people view themselves, a veritable extension of their values and customized for their individuality. In fact, when asked if they felt that their home was a reflection of their identity, 60 percent of people said yes, according to NMHC's consumer housing insights survey.<sup>55</sup>

The apartment industry houses nearly 39 million people today<sup>56</sup>—and demand for apartment living is growing. Tomorrow's renters' needs and wants are shaping up to be so very different in any number of ways that the industry must begin thinking about how to adapt or risk facing a disconnect with their future customers.

"Be it transportation, office, hospitality or retail, we are living in an age of disruption. And not just in the service offered or technology employed," says Rohit Anand, a principal at KTG Architecture + Planning.

"We are witnessing a complete disruption in end-to-end customer experience. We ask if the entire multifamily industry pyramid can continue to provide product viewed largely as a commodity. Enterprises that are successful are looking to build dialogue and emotional engagement with their customer in ways that express their story in authentic, emotional and memorable experiences."

- 1 Given the giant steps forward in robotics and artificial intelligence, technology will become part of the core design of apartment communities rather than an add-on accessory or appliance. Technology will not just be employed for technology's sake but rather to enrich the resident experience.
- 2 As real-time and personalized purchasing experiences become the norm, a lifestyle-focused, flexible and highly personalized apartment is as important as location and layout.
- 3 Static staple unit plans, such as the typical one- and two-bedroom, have long been the hallmark of the apartment industry, but in the coming years, apartment communities and units will have to adapt to serve a greater variety of households and housing needs. This will require building in adaptability in physical components of unit construction.
- 4 Mobile technology, growth in non-traditional jobs and increasing participation in the gig economy are disrupting where and how and for how long people work, impacting their housing decisions. Residents will favor having work in close proximity and even provided within their apartment communities.

- 5 Massive tech advancements are eroding our reliance on personal vehicles, leaving apartment communities to figure out how to adapt to a fluctuation in parking needs going forward.
- 6 Traditional retail looks to be heading toward a serious upheaval, leading apartment communities to consider how new models can best be incorporated on site. For retail to be successful, there has to be a shift to the experiential.
- 7 A growing consumer emphasis on 360-degree wellness means built environments like apartments will be valued by their contributions to physical, social and emotional health.
- 8 The sharing economy is chipping away at the divide between public and private space, requiring tomorrow's apartment communities to be more integrated into the fabric of the community at large. Apartment communities may also provide for spaces that can have multiple uses and be shared for neighborhood needs.

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# ABOUT THE PROJECT

It all started with a field trip. A small group of NMHC staffers visited the Northern Virginia offices of KTGy Architecture + Planning, one of the nation's largest full-service design firms with a focus on residential and mixed-use architecture, to check out a new project from KTGy's R+D Studio. From that afternoon grew a months-long collaboration that would involve the exploration of virtual reality technologies, original research and the development of exciting multifamily design concepts that will have you rethinking the definition of apartment living.

As a foundational piece of the interactive campaign, this research serves as the platform for further creative exploration of how multifamily design can better adapt to these shifts moving forward, minimizing the drag from the disruption happening around us.

To that end, the project's flagship is a series of new multifamily renderings that offer a peek into the apartment-of-the-future looking glass. The eight designs, which include both private living areas and shared amenity spaces, offer innovative and imaginative takes on what apartment living will look like for the next generation.

So, strap a pair of virtual reality goggles on and go to **[nmhc.org/disruption](https://nmhc.org/disruption)** to take the interactive tour.

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