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Student Housing White Paper

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The U.S. Student Housing Market: On-Campus, Student Housing and Student- Competitive Properties

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Table of Contents

About NMHC and the NMHC Research Foundation	3
About the Authors	4
Executive Summary	5
Key Opportunities	6
Methodology	9
Trends	17
Going Forward	27
Conclusion	30
Bibliography	31

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About NMHC

Based in Washington, D.C., the National Multifamily Housing Council (NMHC) is the leadership of the apartment industry. We bring together the prominent owners, managers and developers who help create thriving communities by providing apartment homes for 40 million Americans, contributing \$3.4 trillion annually to the economy. NMHC provides a forum for insight, advocacy and action that enables both members and the communities they help build to thrive. For more information, contact NMHC at 202/974-2300, email the Council at info@nmhc.org or visit NMHC's website at www.nmhc.org.

About the NMHC Research Foundation

In 2016, NMHC formed a non-profit (501(c)(3)) Research Foundation to produce research that will further support the apartment industry's business interests. The work supported by the NMHC Research Foundation raises the industry's standard of performance and encourage worldwide investment in the sector.

The NMHC Research Foundation funds unique and original research on a wide range of topics, including issues related to development and redevelopment activity, affordable and workforce housing, demographics, tax policy, regulatory environment and zoning and land use, among others.

In 2018, NMHC formed the Student Housing Research Fund as part of the NMHC Research Foundation to conduct research focused on the student housing industry to address the paucity and narrowness of research in the industry. This is the first report from this Fund.

For more information, visit www.nmhc.org/Research-Foundation.

About the Authors

This white paper was prepared by Eigen 10 Advisors, LLC, which provides commercial real estate consulting services in the areas of market and investment analyses, capital formation, investor communications, asset and partner due diligence, portfolio strategy and data analytics.

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Executive Summary

The U.S. privately owned student housing rental market has matured from a niche sector to a significant institutional market with a 20-year investment history through both privately held and publicly traded companies. More than 22 million students are now enrolled in post-secondary educational institutions, including both two-year and four-year colleges and universities.

The student housing market is now facing significant changes, both on the demand side in terms of student diversity and growth patterns and on the supply side in terms of evolving building formats and amenities as the market evolves. Some universities are already facing declining enrollment patterns due to aging population bases, while enrollment at others is increasing faster than new housing can be provided. The physical structures provided by both universities and private owners have changed significantly over time as the market has become more institutionalized. Yet significant opportunities remain, as a large part of the market remains in the hands of non-institutional owners of small properties. Perhaps even more so than for other housing types, affordability remains a key issue going forward.

KEY FINDINGS:

- The post-secondary student population is highly diverse, as 40 percent of undergraduates are older than 23 years, and nearly half are financially independent from their parents. Only 64 percent of undergraduate students attend four-year universities.¹
- Unlike most property types, student housing maintains steady demand through recessions, as enrollment rises when the job market weakens. Growth has been most steady at public four-year institutions.
- Because two-year institutions generally do not have university housing, they have a greater need for privately owned student housing; although enrollment patterns should be reviewed carefully, as two-year colleges are facing legislative and financial pressure to improve performance and matriculation rates, which is impacting enrollment trends.
- Approximately 8.6 million students need rental housing near campus. Sixty percent of students live off campus, not with parents.² Graduate students are most likely to live off campus, as only six percent live on campus; eight percent live with parents, and 86 percent live off campus.
- The majority of the market remains in student-competitive housing that is rented by the unit rather than by the bed. We estimate that student housing rentals represent approximately seven percent to 12 percent of the total U.S. rental housing market.

¹ US Dept. of Education, National Center for Education Statistics (NCES), 2019 estimates.

² Excludes university owned properties, students who live with parents and students who own their housing.

- The South and West generally have the highest enrollment patterns, following demographic growth.
- The structure of both student housing and student competitive properties has changed significantly over time. Student competitive properties generally remain more than a mile from campus and are smaller one- or two-bedroom units, although the number of bathrooms has increased to match the number of bedrooms. Bed/bath parity is now equally important in student housing, which is often less than a mile from campus, although more likely to be in larger three- or four-bedroom units.
- 78 percent of the student housing market was built in the last 20 years. The market has added 40,000-60,000 beds per year since 2014. While occupancy rates generally remain high, newer buildings have slightly lower occupancy rates than older buildings. Rental growth remains positive in the 1.5 percent to two percent range on average.³
- However, many opportunities exist. In terms of new construction, new beds have been concentrated in a few universities consistently during the past few years, as the top 10 schools account for 30-40 percent of the new beds each year.

Key Opportunities

OPPORTUNITY #1: SUPPLY-DEMAND BALANCE AND HIGH GROWTH MARKETS

As in other housing types, forward-looking demographic analyses, including income and growth patterns, should be carefully considered. While some schools are already facing closures and declining enrollment, others continue to grow, even in excess of new supply. Fiscal conditions have not recovered since the Great Financial Crisis of 2008-09 in many states, reducing the overall amount of new university-owned housing throughout the U.S. since 2011 and thus increasing the need for privately owned housing where enrollments continue to rise.

OPPORTUNITY #2: EFFICIENCIES AND MARKET SHARE

Despite the recent institutionalization of the market, significant opportunities remain to increase market share. First, a review of the housing markets for the 70 largest four-year universities shows that 55 percent of the rental housing market is less than 10 units in size, and 80 percent of the rental stock is less than 50 units in size, indicating that a large 'mom & pop' market remains. Our sample of nearly 900,000 student housing and 5.4 million student competitive properties is almost entirely larger than 80 units.

³ RealPage: Second quarter 2019 data

Second, portfolios of student housing properties remain small, even among institutional owners. Fewer than 20 companies own 25 or more properties, indicating opportunities to increase scale and potentially improve both operational efficiencies and access to capital.

OPPORTUNITY #3: AFFORDABILITY

The student population is severely income constrained. Thirty-four percent of undergraduates and 38 percent of graduate students earn less than \$20,000 per year, even after considering parent income for dependent students. More than eight percent of post-secondary students are at risk of homelessness. Unit sizes began to shrink after 2010, but only slightly. The race to provide amenity-heavy units to capture the top rents in the market is leaving many students behind and creating higher vacancy in newer units. Demographics at each university should be carefully reviewed.

OPPORTUNITY #4: DOUBLE OCCUPANCY AND FLEXIBLE PRICING

In addition to providing more affordable space for students, double occupancy may provide higher income per unit than single occupancy. However, only five percent of student housing units built since 2010 provide double occupancy, which is highest (at nearly 18 percent) for units built before 1970. Some property owners provide flexible pricing plans -- allowing either single occupancy or double occupancy -- to maximize revenues, while others use creative short-term and daily rental strategies for vacant units.

OPPORTUNITY #5: THE RIGHT AMENITY MIX

A recent student survey indicated that the amenities most important to students are those that create functional, lifestyle efficiencies.⁴ These include laundry, parking, washers and dryers, Wi-Fi, inclusion of utilities and furniture. High-end amenities, such as pools, clubhouses and fitness rooms, were rated as important by less than 20 percent of the students. This is an advantage for the smaller 'mom & pop' properties, which could much more easily include 'more important' low-cost rather than 'less important' high-cost amenities.

OPPORTUNITY #6: INCREASING DENSITY AND MIXED USE

Density is rising as student housing is getting closer to campus, and most new student housing and student competitive properties are either mid- or high-rise properties. The third highest student expenditure after tuition and room is food. In fact, food costs at universities with the highest-rated food quality average \$578 per month as compared to average student housing rent of \$637 per month. Where density allows, student housing developers may want to consider mixed-use properties that

⁴ "What Amenities Do Students Actually Care About," Student Housing Business.com, November/December 2018.

include food options, similar to other rental housing and office formats in population-dense areas. Fast, low-cost food formats are frequently rated as high quality on campus environments.

Methodology

Potential Demand: The Post-Secondary Student Population

This paper estimates the size of the 2019 student housing population. Current student housing uses are then segregated into categories of university-owned, rented, student-owned and students living with parents. We then review the evolution of the student housing rental market over the past several decades.

More than 22 million people are enrolled in post-secondary education in the U.S.⁵ These institutions include two-year and four-year colleges and universities that are funded to some extent either publicly by the government or by private pay systems. Of the total post-secondary student population, 20.1 million students attend Title IV schools, which are U.S. colleges and universities that are accredited for student lending.⁶ We exclude non-Title IV schools from estimates of institutional-quality student housing needs.

Students may enroll in these institutions full-time, part-time and/or through growing online programs. In fact, the largest universities have open enrollment and significant online programs. Based on data from 4,700 schools⁷, more than 6.3 million students have taken at least one online class in the past year.⁸

A significant number of post-secondary students attend school part-time and through non four-year programs. We began student housing estimates with the National Center for Education Statistics (NCES) PowerStats databases, which provide the most detailed estimates of student populations by type of enrollment and housing types. The most recent detailed data (shown below) is from the 2015-16 school year. We then used other NCES estimated and forecast data to estimate 2019 student population by institution type.

⁵ U.S. Census, 2018 Table B14001.

⁶ National Center for Education Statistics, 2018 Digest, 2017 Fall Data, Table 301.10.

⁷ This includes both Title IV institutions and private for-profit schools.

⁸ U.S. Department of Education, National Center for Education Statistics.

Institution Type	% Post-	
	Undergraduate	Baccalaureate
Public 4-year	35.0%	46.7%
Public 2-year	39.1%	0.0%
Public < 2-year	0.3%	0.0%
Private nonprofit 4-year	15.1%	43.0%
Private nonprofit 2-year	0.5%	0.0%
Private nonprofit < 2-year	0.0%	0.0%
Private for profit 4-year	5.7%	10.3%
Private for profit 2-year	2.3%	0.0%
Private for profit < 2-year	1.9%	0.0%
Total	100%	100%
<i>Total #</i>	<i>17,036,778</i>	<i>2,940,492</i>

Source: National Center for Education Statistics, PowerStats, 2015-16 Data

Of the degree-granting schools, 17 million students are enrolled in undergraduate programs, although only 62 percent of these are full-time.⁹ An additional three million people are enrolled in graduate-level programs. Graduate (post-baccalaureate) students, who are 14.7 percent of the total Title IV, degree-granting student population, attend four-year institutions with 47 percent at public schools, 43 percent at private non-profit (NP) schools and 10 percent at private for-profit (FP) schools. 43.2 percent of graduate students attend school part-time.¹⁰ The undergraduate population attends a larger variety of school formats. Fully 44.1 percent of undergraduates attended non four-year institutions in 2015-16, and 38.1 percent attended school part-time.¹¹ Of the total undergraduate population, only 35 percent attend public four-year universities with another 15 percent attending private, non-profit four-year universities (Pr NP 4-yr). As students look for cost-effective alternatives to rising costs, another large population of undergraduate students attend public two-year institutions, which accounts for 39 percent of the undergraduate population.

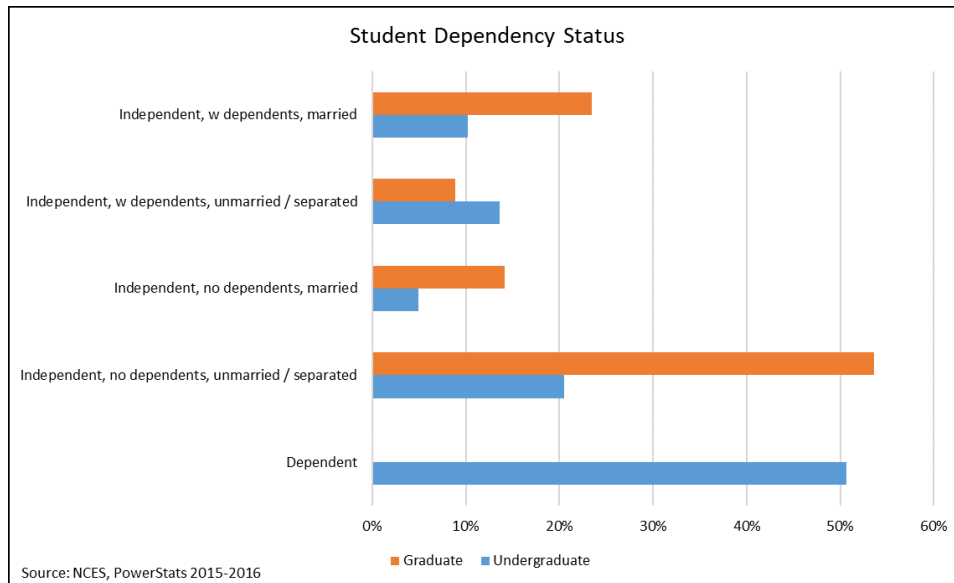
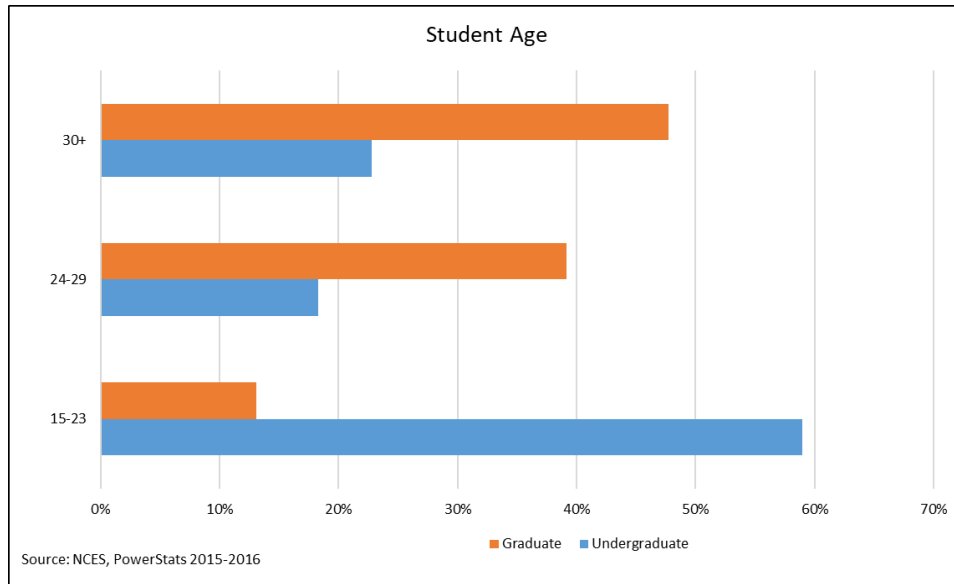
Diverse Student Demographics

The student population is quite diverse. Forty percent of undergraduates are older than 23 years old, and nearly half are independent from their parents as, shown in the graphs below.

⁹ National Center for Education Statistics, 2018 Digest, 2017 Fall Data, Table 303.45.

¹⁰ National Center for Education Statistics, 2018 Digest, 2017 Fall Data, Table 303.45.

¹¹ National Center for Education Statistics, 2018 Digest, 2017 Fall Data, Table 303.45.



NCES provides less detailed data through 2017 and only higher-level estimates through 2028.¹² To estimate the size of the 2019 student housing rental market, we used actual enrollment data through 2017 from NCES, which is broken down by four-year and two-year schools but excludes all less-than-two-year schools, which were 2.2 percent of the 2015-16 undergraduate student population. NCES provides estimates going forward from 2018 through 2028. These estimates exclude the for-profit and non-profit breakdowns of private schools.

Enrollment in for-profit private schools began declining in 2011 with rapid declines thereafter in both four-year and two-year schools. To estimate 2018 and 2019 enrollment, we began with the 2012-17 average annual decline of 11.9 percent per year for two-year for-profit private schools and 10.3 percent for four-year for-profit private schools. Following short-

¹² As of Fall 2019. Estimates from this section were gathered from NCES Tables 303.70 and 303.80.

term improving trends in demographics and high school enrollment, NCES projected higher total two-year and four-year enrollment growth rates in 2018-19 than the 2012-17 time period. In fact, two-year private school total enrollment is estimated to have increased by 0.4 percent per year for 2018 and 2019 as compared to an average decline of 10.0 percent in 2012-17. Four-year private enrollment rates are similarly expected to increase by 0.3 percent per year in 2018-19 as compared to -2.3 percent on average in 2012-17.

We then adjusted the for-profit historic growth rates for the difference in the total private school 2018-19 growth rates as compared to the 2012-17 average growth rates. The non-profit private school estimates for 2018-19 were calculated as the difference between the NCES total private school estimates minus our calculated 2018-19 for-profit private school estimates. Similar methodology was used for graduate level 2018-19 for-profit and non-profit private school enrollment. Rates for each segment of private school enrollment growth are provided below.

2018-19 Private School Enrollment Growth Estimates*

	Undergraduate 4-Year Schools			Undergraduate 2-Year Schools			Graduate		
	Total	Nonprofit	For-profit	Total	Nonprofit	For-profit	Total	Nonprofit	For-profit
2012-17 Avg	-2.3%	0.6%	-10.3%	-10.0%	6.0%	-11.9%	0.4%	1.1%	-2.8%
2018-19 Avg	0.3%	2.1%	-7.6%	0.4%	7.4%	-1.5%	0.4%	1.0%	-2.8%

*Source: NCES Table 303.70; Figures in blue are calculated by Eigen 10 Advisors, LLC.

These estimated figures continued a recent historic growth pattern as the for-profit segment of private schools continued to decline in all segments as a percent of total private school enrollment as shown in the chart below.

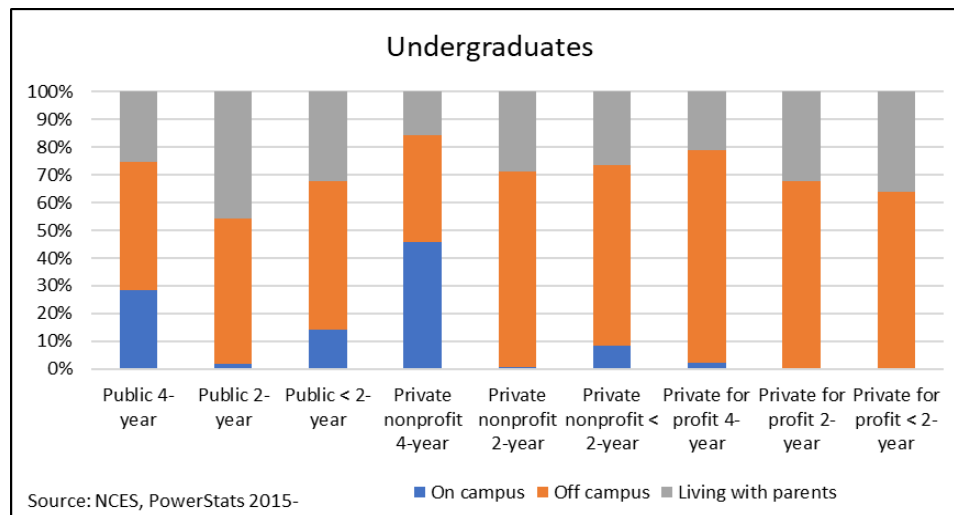
2018-19 Private School Enrollment Growth Estimates*

	Undergraduate 4-Year Schools			Undergraduate 2-Year Schools			Graduate		
	% Total Private School Enrollment			% Total Private School Enrollment			% Total Private School Enrollment		
	Total	Nonprofit	For-profit	Total	Nonprofit	For-profit	Total	Nonprofit	For-profit
2012	100.0%	69.7%	30.3%	100.0%	10.0%	90.0%	100.0%	80.3%	19.7%
2017	100.0%	80.9%	19.1%	100.0%	20.6%	79.4%	100.0%	83.4%	16.6%
2019	100.0%	83.8%	16.2%	100.0%	23.6%	76.4%	100.0%	84.4%	15.6%

*Source: NCES Table 303.70; Figures in blue are calculated by Eigen 10 Advisors, LLC.

The number of estimated students enrolled in 2019 in each of the nine school categories was then multiplied by the percentage of students living on campus, off campus and with parents, as shown in the graph below for undergraduate students.¹³

¹³ NCES PowerStats, 2015-16 data.



Sixty percent of all post-secondary students live off campus, not with parents. Graduate students are most likely to live off campus, as only six percent live on campus; eight percent live with parents, and 86 percent live off campus.¹⁴ Undergraduate on-campus housing is highest at public four-year universities and private, non-profit four-year universities (Pr NP 4-yr), although more students live off campus than on campus even at these universities.

When estimating the size of the student housing rental market, the off-campus data was further adjusted to identify how many of the off-campus students live in owned rather than rented housing. This population is particularly significant for graduate students, as 33.7 percent of graduate students and 13.3 percent of undergraduate students own their off-campus housing.¹⁵

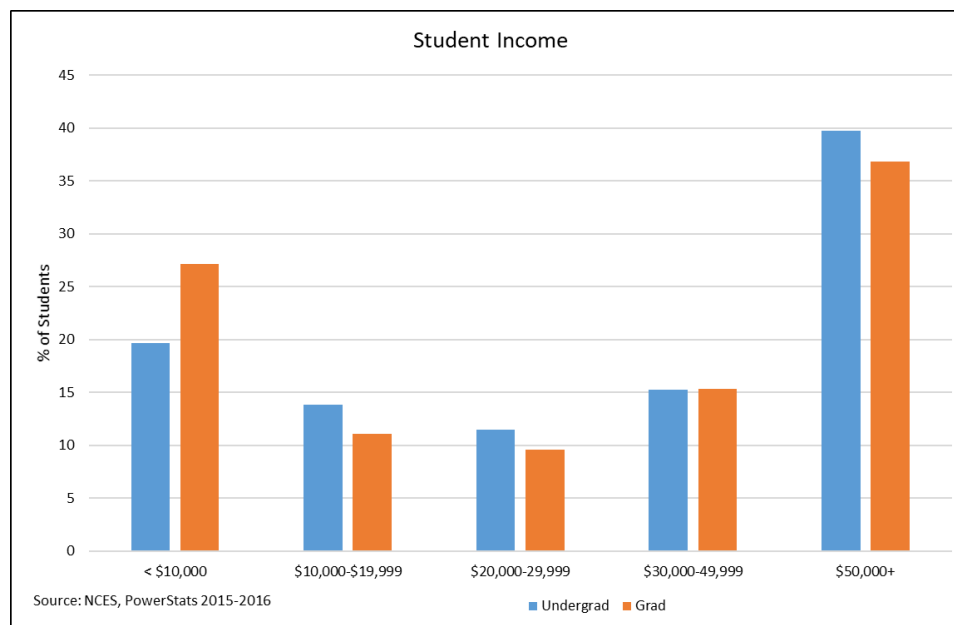
Affordability Is a Key Concern

Perhaps even more so than other property types, housing affordability is a critical issue for the student population. Even after considering parent income for dependent students, 34 percent of undergrads and 38 percent of grad students earn less than \$20,000 per year.¹⁶ Coming out of school, the average student debt today is \$38,390 with a median \$10,000-\$25,000 and two percent of borrowers owing more than \$100,000. High debt numbers from previous borrowers have made students more wary of taking on large student debt and more conscious about how they spend tuition dollars.

¹⁴ Graduate student housing choices were estimated from NCES 1993-95 and 1996-99 data for all graduate students, regardless of college type.

¹⁵ National Center for Education Statistics, PowerStats, 2015-16 data.

¹⁶ National Center for Education Statistics, PowerStats, 2015-16 data.



Estimates of college student homelessness vary from 32,000¹⁷ to around 56,000¹⁸ homeless students. These estimates are equivalent to approximately 0.2 percent of the student population and were included in our estimates of the student housing market. While this is a small number, note that a significant part of the student population—8.8 percent of undergraduate and 8.5 percent of graduate students—are at risk of homelessness.¹⁹ Furthermore, 23.4 percent of undergraduate students and 17.2 percent of graduate students live in poverty. Thus, housing affordability is critical for this segment of the population.

Of the 32,000 unaccompanied homeless youth aged 18 to 24 receiving financial aid for post-secondary education, 46 percent attend public two-year colleges, 32 percent attend public four-year colleges, 14 percent attend private, non-profit schools, seven percent attend private for-profit schools and one percent attend less than two-year colleges.²⁰ Our undergraduate enrollment figures were further adjusted for these figures. Graduate student enrollment figures were adjusted downward by 0.2 percent for homelessness.

Final estimates of 2019 graduate and undergraduate students by housing type are shown below. We estimate 8.62 million student housing rental beds are needed in 2019, comprised of 7.06 million undergraduates and 1.57 million graduate students. Of the undergraduate rental housing, 42 percent is at public four-year schools, 36 percent is at public two-year schools, 19 percent is at private four-year schools, two percent is at private two-year schools and one percent is at less than two-year programs. Rental housing demand

¹⁷“Higher Education, Actions Needed to Improve Access to Federal Financial Assistance for Homeless and Foster Youth,” United States Government Accountability Office, May 2016.

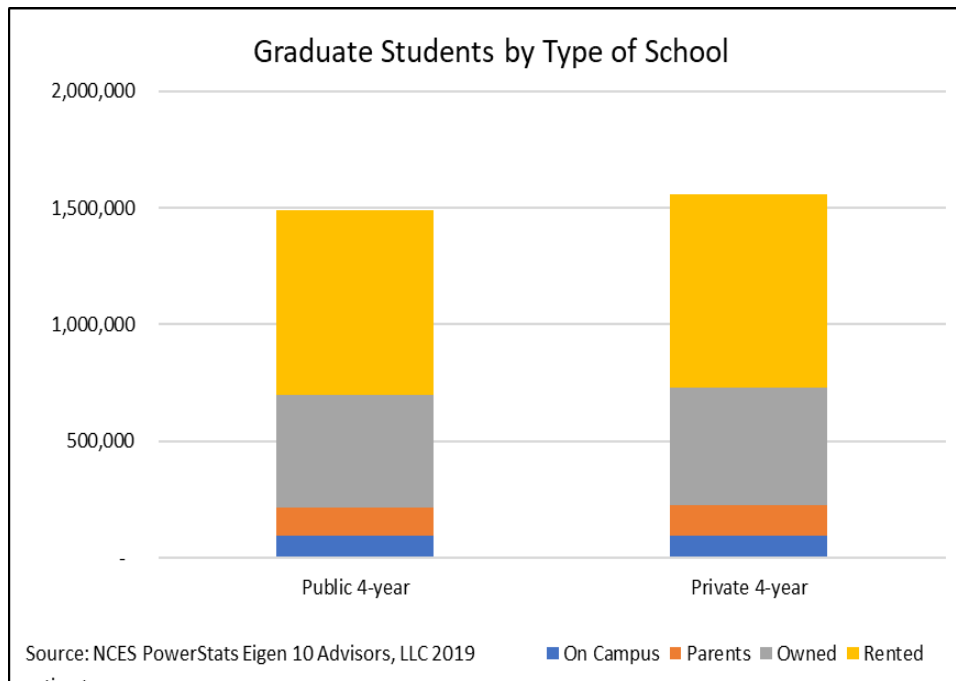
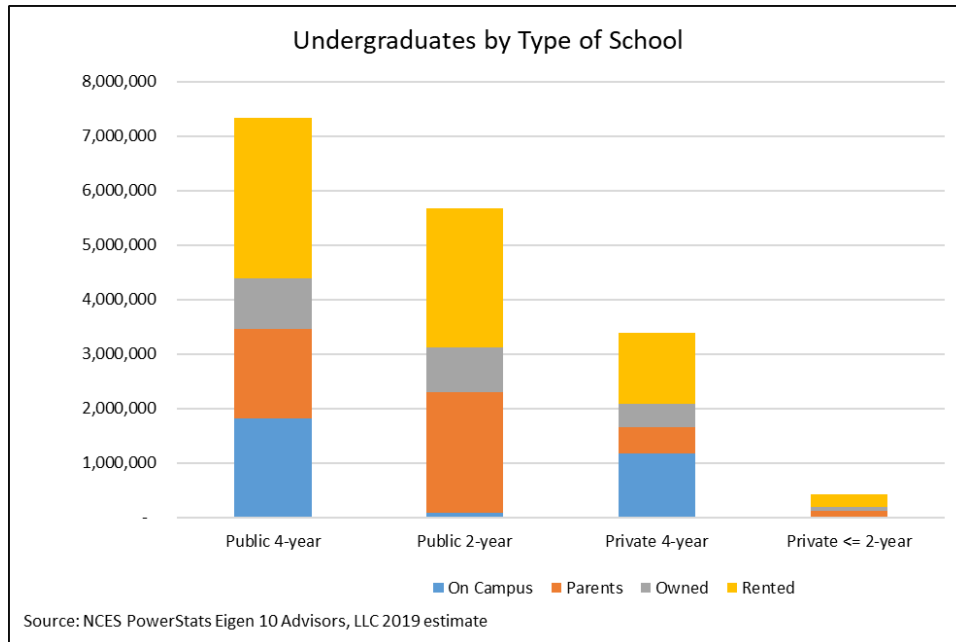
¹⁸“Barriers to Success: Housing Insecurity for U.S. College Students,” U.S. Department of Housing and Urban Development, February 2015.

¹⁹ Per HUD definition:

https://files.hudexchange.info/resources/documents/AtRiskofHomelessnessDefinition_Criteria.pdf

²⁰“Higher Education, Actions Needed to Improve Access to Federal Financial Assistance for Homeless and Foster Youth,” United States Government Accountability Office, May 2016.

for graduate students is 49 percent public four-year schools, 43 percent private non-profit four-year schools and eight percent private for-profit schools.



Undergraduate Students 2019 Housing Estimates

	On Campus	Parents	Owned	Rented
Public 4 year	1,826,391	1,629,816	937,721	2,947,477
Public 2 year	81,155	2,220,955	813,146	2,555,910
Private 4 year	1,172,527	487,581	419,343	1,318,093
Private 2 year	789	60,076	41,609	130,788
< 2 year	6,631	59,007	32,821	103,165
Total	3,087,493	4,457,434	2,244,641	7,055,432
Total				16,877,000

Source: Eigen 10 Advisors, NCES

Graduate Students 2019 Housing Estimates

	On Campus	Parents	Owned	Rented
Public 4 year	91,013	120,372	495,684	760,144
Private 4 year	96,399	127,496	525,020	805,133
Total	187,412	247,867	1,020,704	1,565,277
Total				3,027,000

Source: Eigen 10 Advisors, NCES

We estimate that 17 percent of off-campus student rentals are provided as purpose-built student housing with an average of 2.8 beds per unit with another 83 percent of student housing provided as student-competitive units that are near campus at an average of 1.5 beds per unit.²¹ Compared to 43.4 million rental units in the U.S., the 8.6 million student beds equates to 12 percent of the total U.S. rental units using the blended average of beds per unit or more conservatively only seven percent of the market assuming 2.8 beds per unit for all student housing.

²¹ RealPage: Second quarter 2019 data.

Trends

Student Enrollment Generally Rises During Recessions

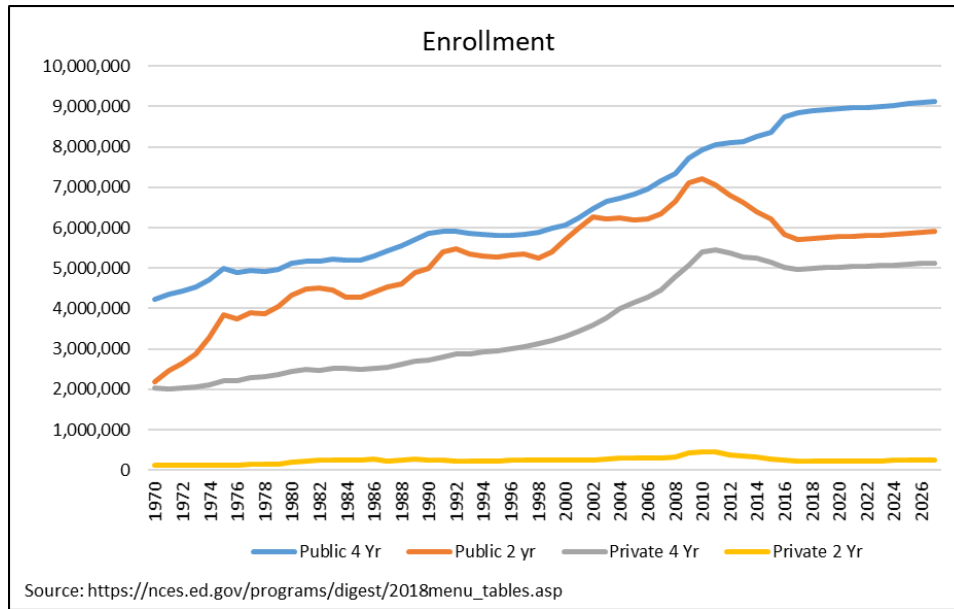
Post-secondary enrollment in public four-year universities increased by an average of 2.1 percent per year over the past decade as well as the past two decades, as compared to general population growth of one percent and 1.2 percent, respectively. Demand, both full-time and part-time for graduate and undergraduate enrollment is impacted by the economy. In contrast to many parts of the economy though, student enrollment increases during recessions as unemployment rises and stabilizes after recessions. This trend is particularly notable for two-year institutions as people increase their skill set to improve their future career prospects at a time when opportunity costs are lower since forgone income is less.

The below chart hints at a number of other very critical changes and secular variances occurring in enrollment patterns.²² First, while enrollment spiked across institutions during the Great Financial Crisis of 2008-09 when unemployment spiked to 10 percent, only the public four-year universities have continued to increase enrollment since then. Enrollment in public two-year colleges has particularly declined and is declining at a pace not recorded since the data started in 1970. Much of this decline is related to legislative pushback regarding matriculation rates and reduction of financial aid to underperforming schools, both in the public and private education sectors.

The National Center for Education Statistics forecasts an average 0.2 percent increase in enrollment per year for the next decade, following general demographic trends. However, the graph points out historic variances in trends that should be seriously considered and the danger in following general averages. Enrollment for each university should be carefully considered, not only in terms of total volume but in terms of the income and changing demographics of the students enrolled as trends vary considerably, both geographically and by institution.

Nationally, the population of high school graduates is expected to start declining in 2025, reflecting the aging nature of the U.S. population. However, regional trends vary significantly. The South continues to have a demographically diverse population base supported by a younger population that generates births as well as in-migration.

²² Source: NCES. Note that data through 1995 are for institutions of higher education, while later data are for degree-granting institutions. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. The degree-granting classification is very similar to the earlier higher education classification, but it includes more 2-year colleges and excludes a few higher education institutions that did not grant degrees.



The Midwest and Northeast are more likely to have lower-growth and aging populations with less in-migration; thus, creating less demand for colleges and universities. Post-secondary enrollment reflects these trends with more growth in the South and West while flat or declining in the Midwest and Northeast.



Physical Characteristics of Student Housing Stock

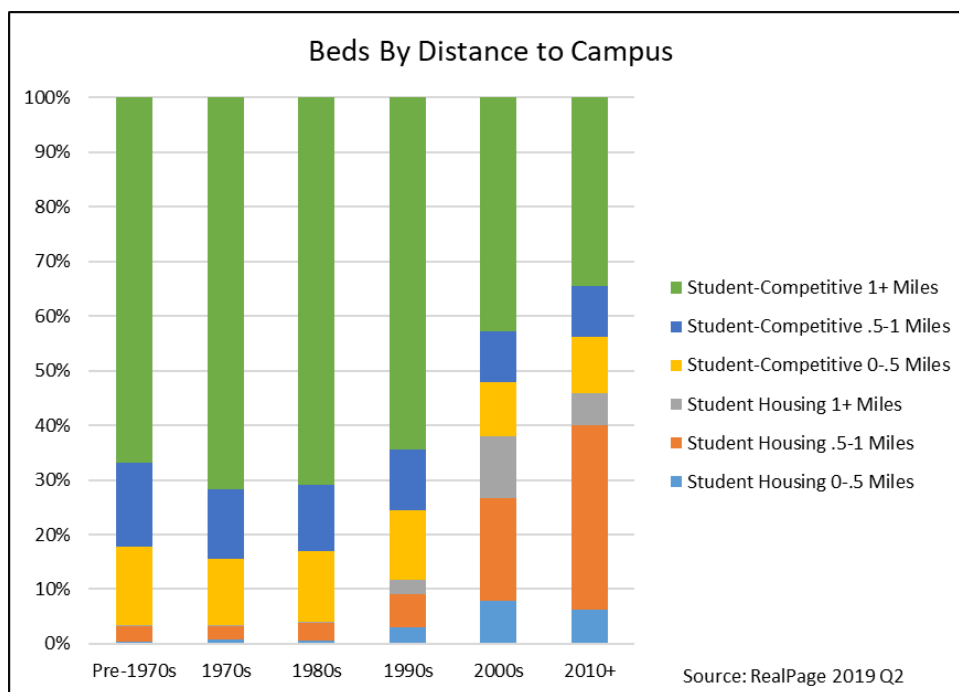
This study examined both student housing and student competitive housing using Real-Page data. Student competitive housing is defined as properties that are less than three miles from campus and not built solely for the purpose of attracting students but are comprised primarily of students and are rented by the unit. More than 70 percent of the student competitive beds are farther than one mile from campus. Student housing properties are defined as those that are rented by the bed and are designed specifically for students. Sixty-four percent of student housing properties are less than a half mile from campus.

Since 2014 the market has added 40,000-60,000 beds per year, with many of those beds located at a few universities. In fact, the top 10 schools account for 30-40 percent of the new beds each year. When a school chooses to expand, it does so with a significant increase in the number of beds and units rather than gradually with smaller projects over several years.

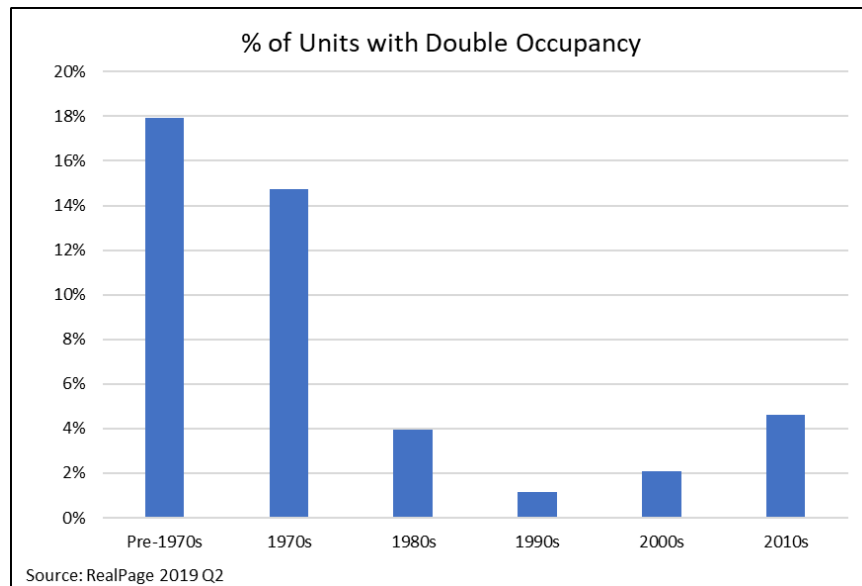
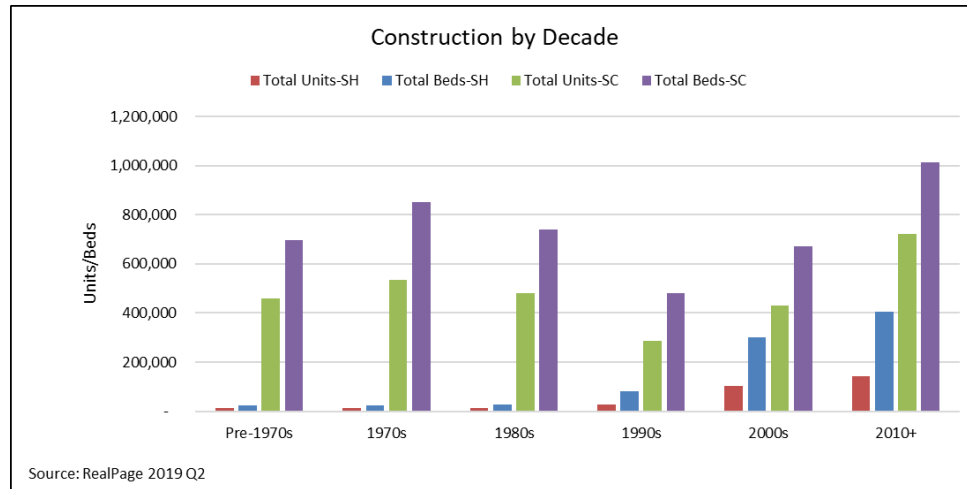
In our data sample of 891,945 student housing beds, 61 percent were in the South, 19 percent in the Midwest, 13 percent in the West and six percent in the Northeast. As one might expect given the demand, southern schools are adding the most units and beds, accounting for over half the new total over the past five years.

More than 400,000 student housing beds were added since 2010, accounting for 45 percent of the new beds added since the 1970s. Over 70 percent of those beds were within a half mile of campus, and 87 percent were within a mile. In the 2000s, more student housing was built a mile or more from campus.

More than one million student competitive properties were constructed this decade, but that accounts for only 23 percent of the student competitive beds added since the 1970s. In addition, almost 65 percent of the new beds in these units are over a mile from campus.



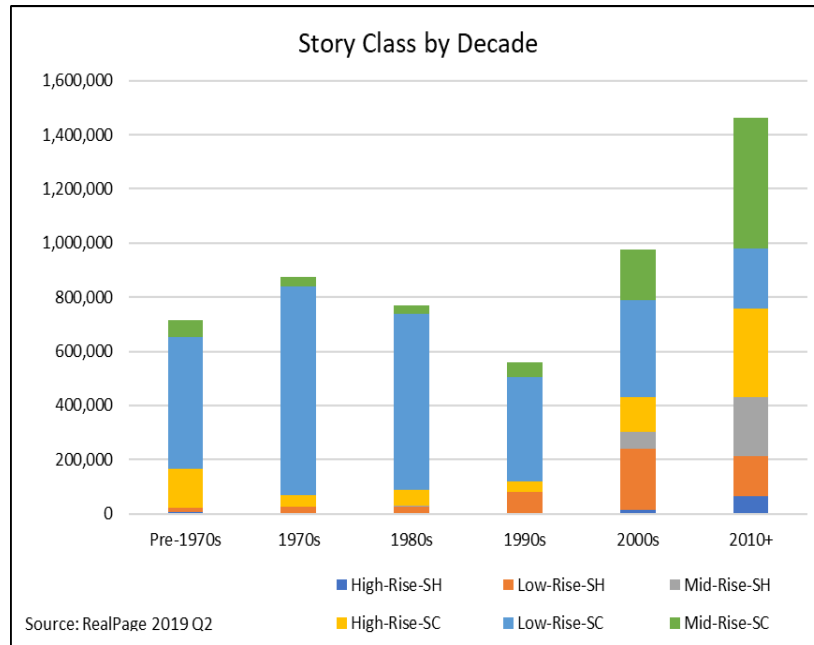
Newer student housing units are less likely to have double occupancy (despite the lower cost). Pre-1970, 18 percent of student housing was double occupancy. That fell to less than two percent in the 1990s and has risen back to four percent since 2010.



Student Housing Formats Change Over Time

The type of building and suite structure has changed significantly over time too. Starting with student housing, the greatest percentage of beds built were in mid-rises (50 percent), compared to the 1980s and 1990s when greater than 90 percent were in low-rise buildings. The transition started in the 2000s as the mid-rise percentage rose from four percent in the 1990s to 20 percent in 2000s.

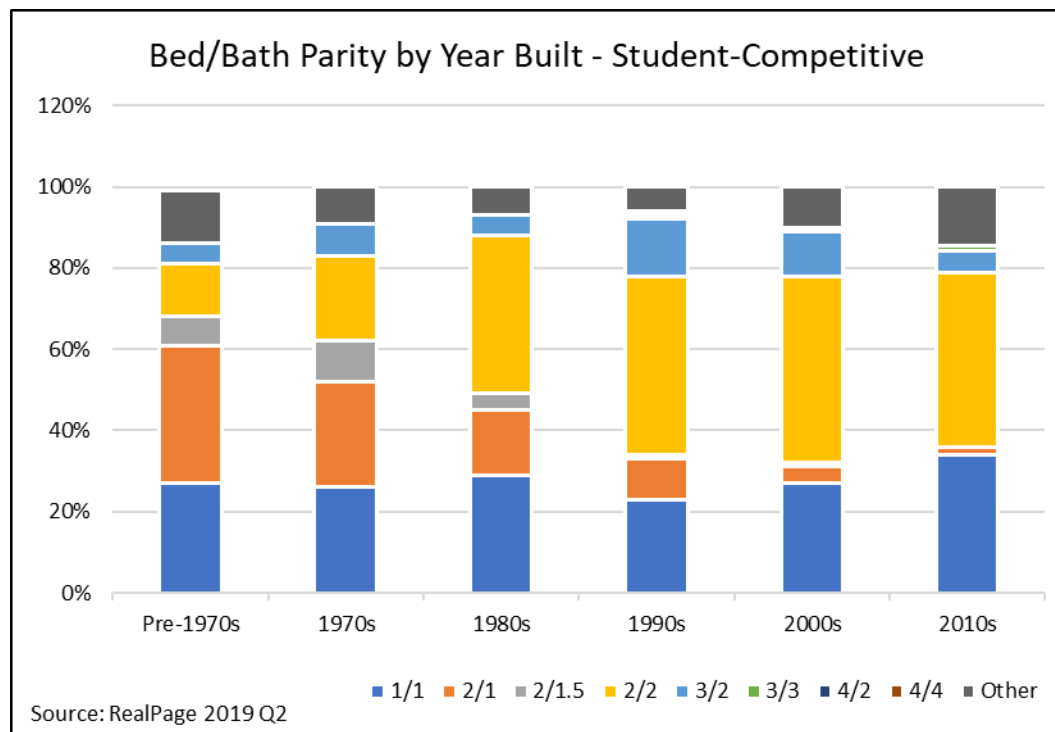
Student competitive also experienced a shift, but the growth in mid-rise buildings wasn't as dramatic. Mid-rise buildings accounted for 12 percent in the 1990s, 28 percent in the 2000s and 47 percent this decade. High-rises are the second biggest this decade with 32 percent of the beds, compared to 19 percent in the 2000s and eight percent in both the 1990s and 1980s.



In addition to the change in the types of buildings being built, the bed/bath combination, or bed-bath parity, has also changed significantly. Pre-1970, 44 percent of student housing units were 1/1 or 2/1 (bed/bath) units and only two percent were 4/4. Unit size began increasing in the 1980s as the number of 4/4 units began to increase. In the past decade, 4/4 dominates student housing with 37 percent of the units. The 2/2 is second with 15 percent, and the 3/3 has 14 percent. 4/2 is down to six percent, and all other combinations are in the single digits.

In contrast, smaller units remain popular in student competitive housing, although bed/bath parity has increased significantly. Before 1980, 1/1 and 2/1 units were the most popular. However, in the 1980s, 2/2 bed/bath units began increasing significantly. By 2010, 2/1 units had almost entirely disappeared, and 2/2 or 1/1 units accounted for 77 percent of new supply.

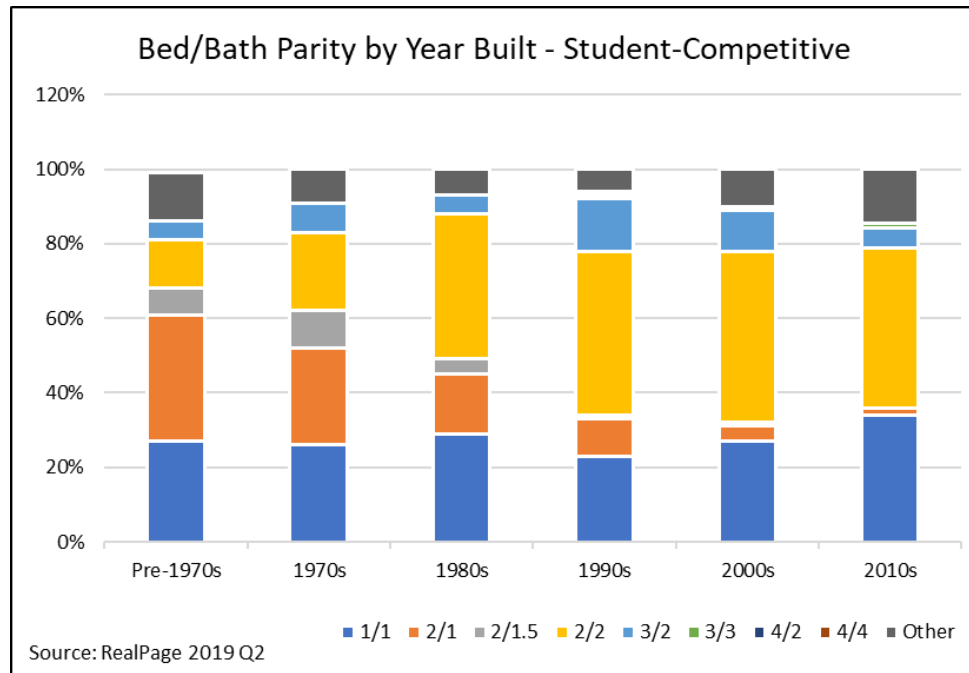
Student Competitive Units Focus on 1/1 or 2/2 Bed/Bath Parity



Bed/Bath	Pre-1970s	1970s	1980s	1990s	2000s	2010s
1/1	17%	14%	12%	3%	3%	4%
2/1	27%	15%	11%	3%	2%	2%
2/1.5	5%	5%	1%	1%	0%	0%
2/2	11%	15%	18%	16%	15%	15%
3/2	5%	18%	8%	6%	2%	1%
3/3	0%	6%	6%	11%	19%	14%
4/2	7%	15%	18%	32%	12%	6%
4/4	2%	1%	10%	22%	36%	37%
Other	25%	11%	17%	8%	10%	20%

Source: RealPage 2019 Q2

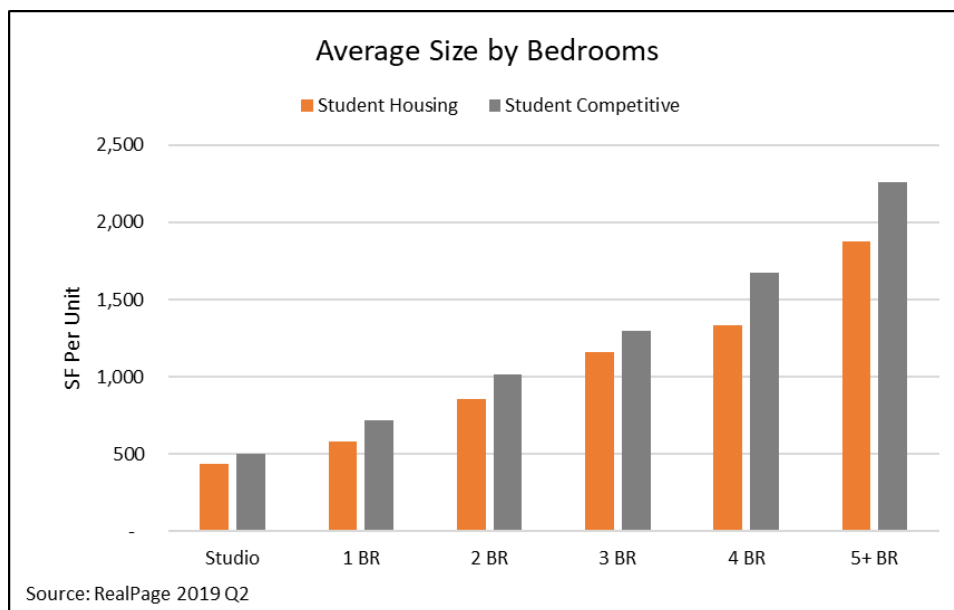
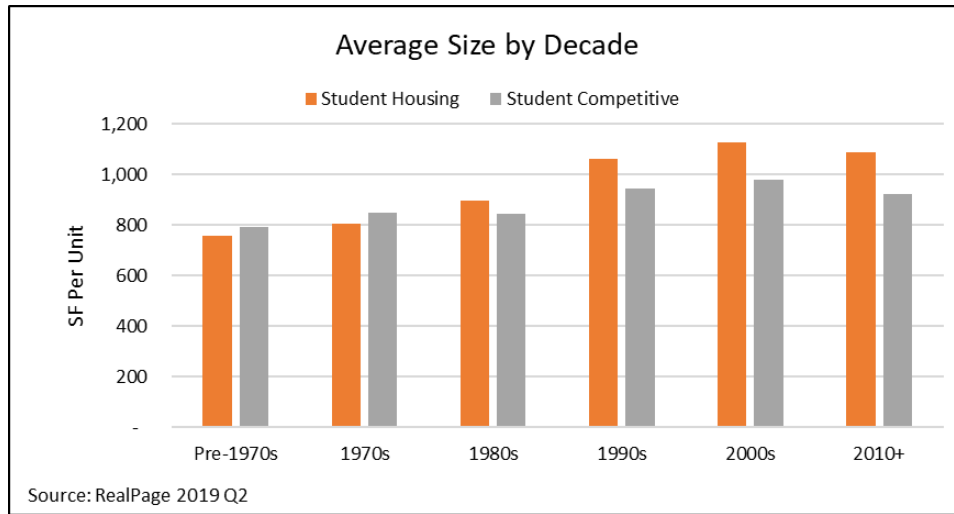
Student Housing Units Getting Larger Over Time



Bed/Bath	Pre-1970s	1970s	1980s	1990s	2000s	2010s
1/1	27%	26%	29%	23%	27%	34%
2/1	34%	26%	16%	10%	4%	2%
2/1.5	7%	10%	4%	1%	1%	0%
2/2	13%	21%	39%	44%	46%	43%
3/2	5%	8%	5%	14%	11%	5%
3/3	0%	0%	0%	1%	1%	1%
4/2	0%	0%	0%	1%	0%	0%
4/4	0%	0%	0%	0%	0%	0%
Other	13%	9%	7%	6%	10%	14%

Source: RealPage 2019 Q2

Over time, the average square footage per unit for student housing has grown from 754 SF pre-1970s to 1,126 SF in 2000s. Property sizes declined slightly since 2010 as the average square footage dropped to 1,089 SF. That compares to student competitive units that were 791 SF pre-1970s, 981 SF in the 2000s, declining to 925 SF per unit after 2010.

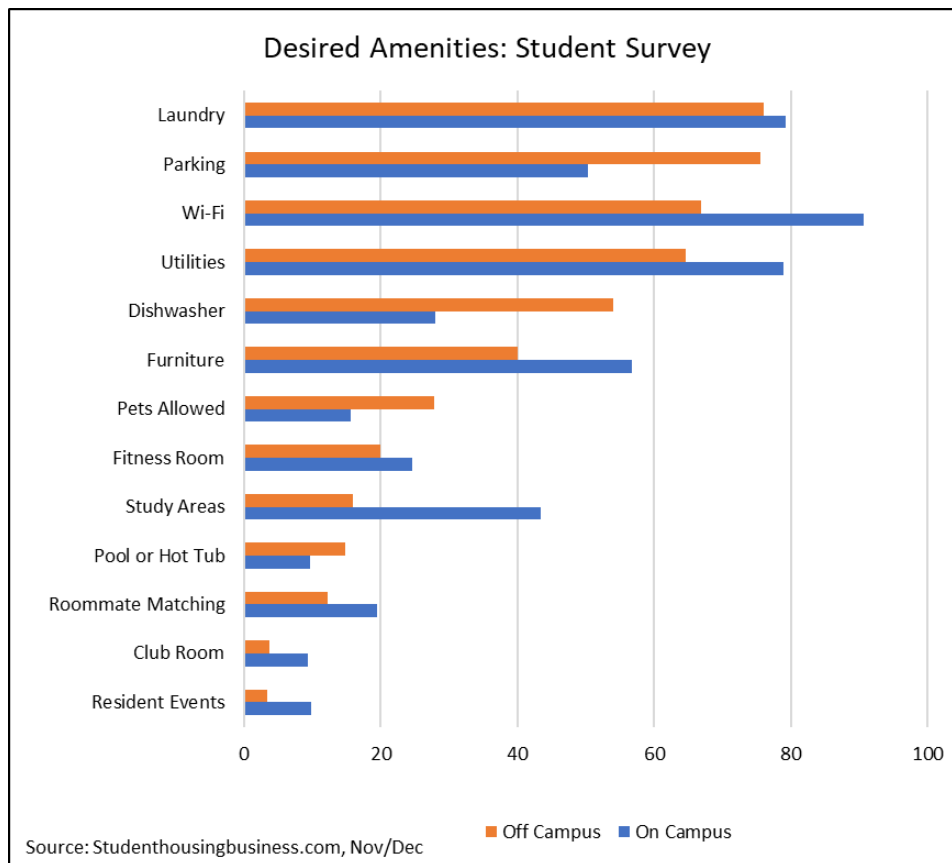


Student Housing Amenities

Student housing developers should closely review the student demographics at each educational institution, particularly in terms of income needs and amenities. While amenities have continued to increase over time from almost nothing to lavish units that are amenity rich, a significant amount of the student population remains income challenged. A recent student survey indicated that the amenities that students value most are the basic life-need amenities that create efficiencies, e.g., laundry, parking, Wi-Fi, utilities and dishwashers, closely followed by furniture.²³ Fitness rooms, pools and clubrooms were rated significantly lower. A significant number of students have disabilities. In fact, 20.6 percent of undergraduate students living off-campus have disabilities, higher than the 19.5 percent

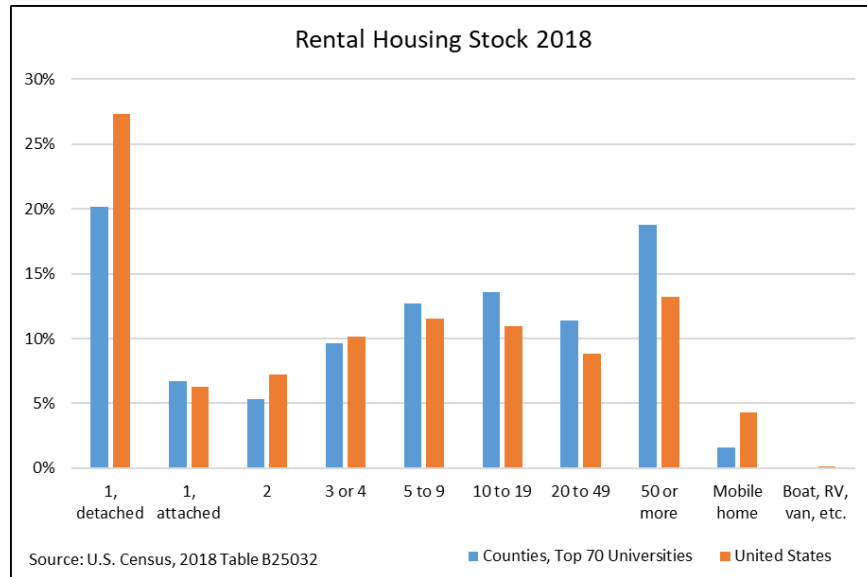
²³ “What Amenities Do Students Actually Care About,” studenthousingbusiness.com, November/December 2018.

living with parents and 15.8 percent living on campus.²⁴



The amenity list is even more important when considering the nature of the student housing market. In a study of the counties surrounding the 70 largest four-year universities, we find that 55 percent of rental properties in these markets have less than 10 units, and 80 percent are less than five units. While the counties with large universities have more 50+ units and fewer single-family units, as would be expected in student housing-oriented markets, nearly 20 percent of the market remains in single-family detached properties, even in student housing-oriented markets.

²⁴ NCES, off-campus includes owned housing. “Students with disabilities are those who reported having deafness or serious difficulty hearing; blindness or serious difficulty seeing; serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition; or serious difficulty walking or climbing stairs. For 2015–16, the question about difficulty concentrating, remembering, or making decisions was expanded to include examples of relevant conditions. Specifically, students were instructed to “consider conditions including, but not limited to, a serious learning disability, depression, ADD, or ADHD.”



On the one hand, this indicates that there remains a significant opportunity for student housing owners to continue to provide improved and modernized housing for students. On the other hand, the amenities most valued by students, e.g., things such as laundry, dishwashers and furniture, can also be supplied by small owners, creating competitive pressure from small and non-institutional owners. And these owners remain a large part of the market, as few student housing investors own more than 20 properties, indicating that there may be economies of scale still to be had in this market.

A Case for Mixed Use

While food was not considered in the amenity survey, on-campus food costs indicate that students are spending almost as much money on food as they are on rent. In fact, the average cost of student housing per month is \$637²⁵ as compared to an average on-campus meal plan of \$486²⁶ per month, increasing to \$578 per month at universities with the top-rated meal plans. As student housing moves closer to campus in more dense, high-rise buildings, the ability to provide proximity to groceries or food, similar to formats seen in office buildings, may be feasible in mixed-use properties.

While the world becomes more focused on healthy living options, another student survey shows a continued trend of the importance of low-cost convenience. Chain food providers, such as Subway, Starbucks, Chick-fil-A, Panda Express and Chipotle, have significant on-campus presences and are rated highly by students.²⁷

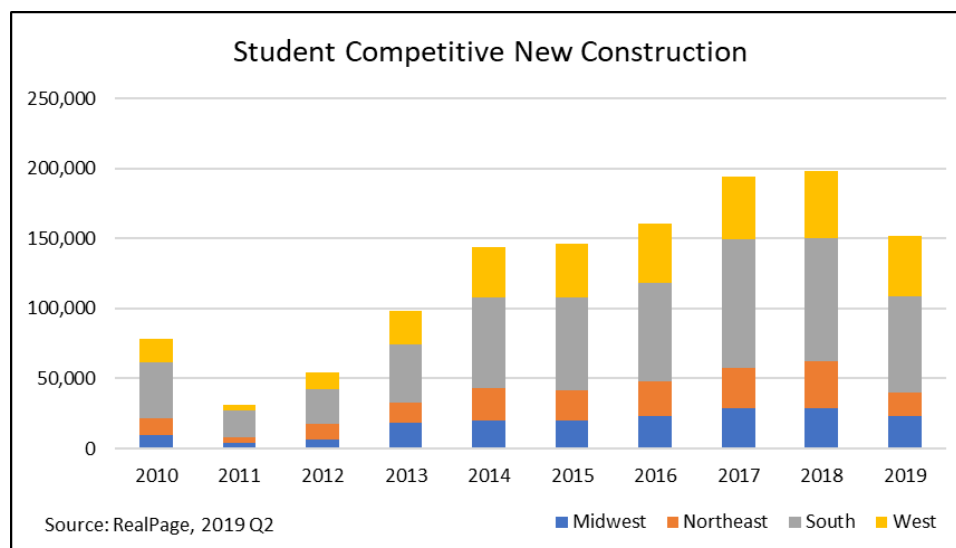
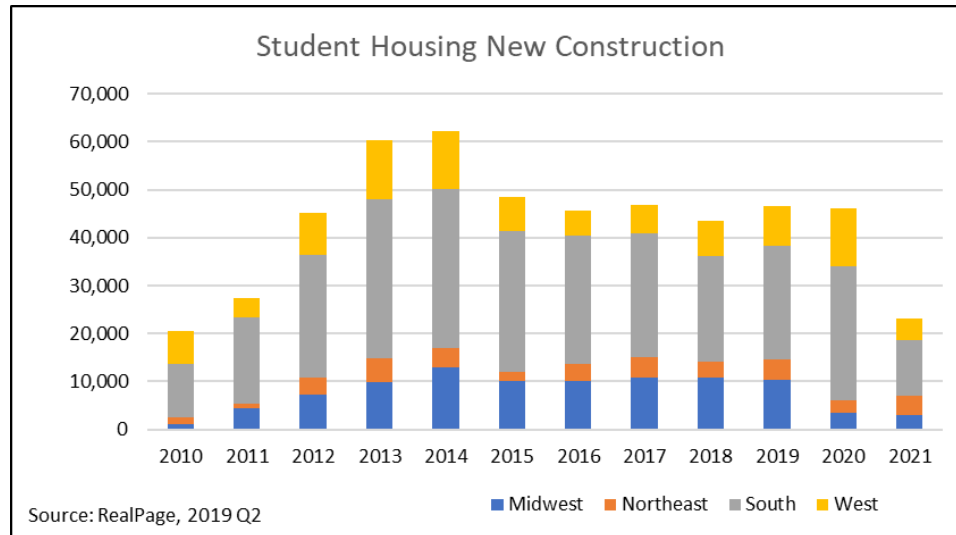
²⁵ RealPage 2019.

²⁶ 75 largest four-year universities, Niche.com; average for all full-time undergraduate students is \$415 per NCES, 2017-18.

²⁷ Niche.com.

Going Forward

Universities added an average of 32,000 beds per year from 2001 to 2010. That pace slowed in half to 15,700 per year from 2011 through 2018 despite the abilities of universities to maintain occupancy rates near 96 percent during the past eighteen years.²⁸ Room costs for four-year institutions increased by 5.7 percent per year, on average, from 2000 to 2010 but slowed to 3.4 percent annual increases in 2014 to 2018²⁹.

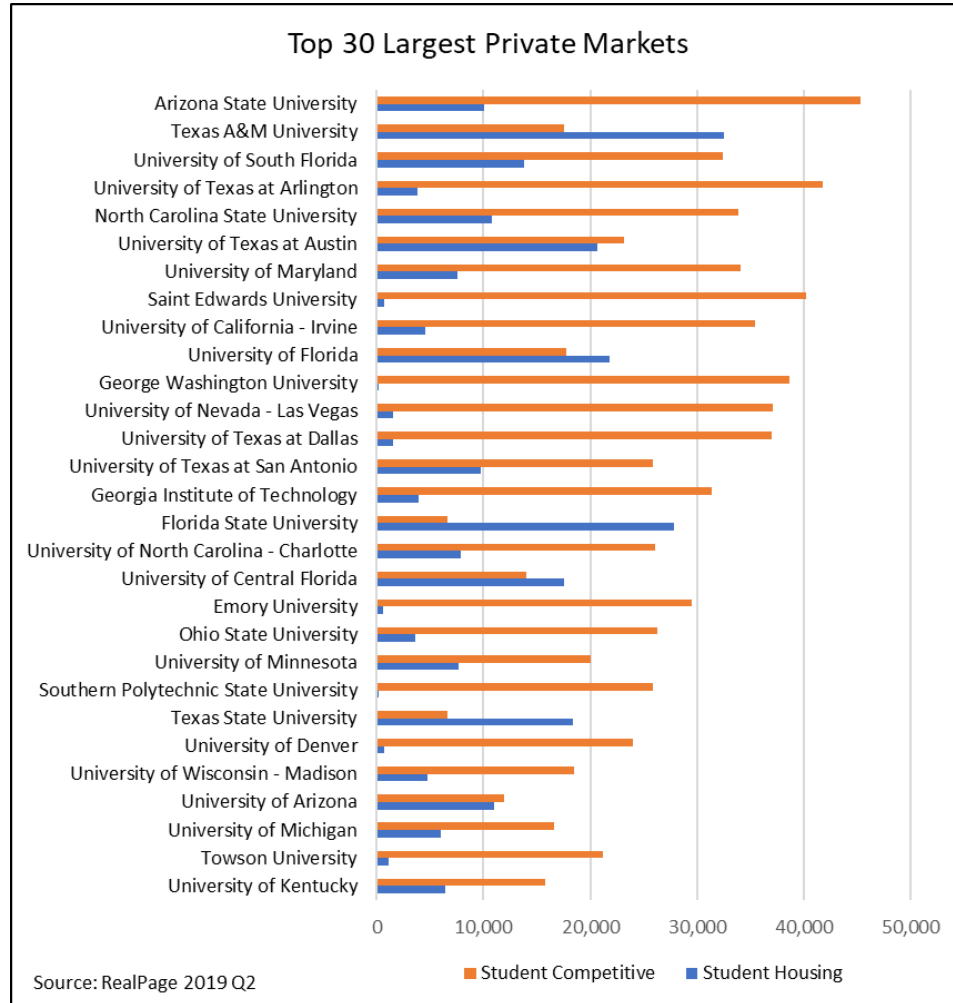


The southern U.S., with its growing population and large universities, has accounted for 57 percent of new student housing construction and 26 percent of student competitive construction since 2010. The total student housing stock of the South region has increased less than the other regions, up 30 percent since 2010 as compared to 37 percent for the

²⁸ RealPage: Second quarter 2019 data.

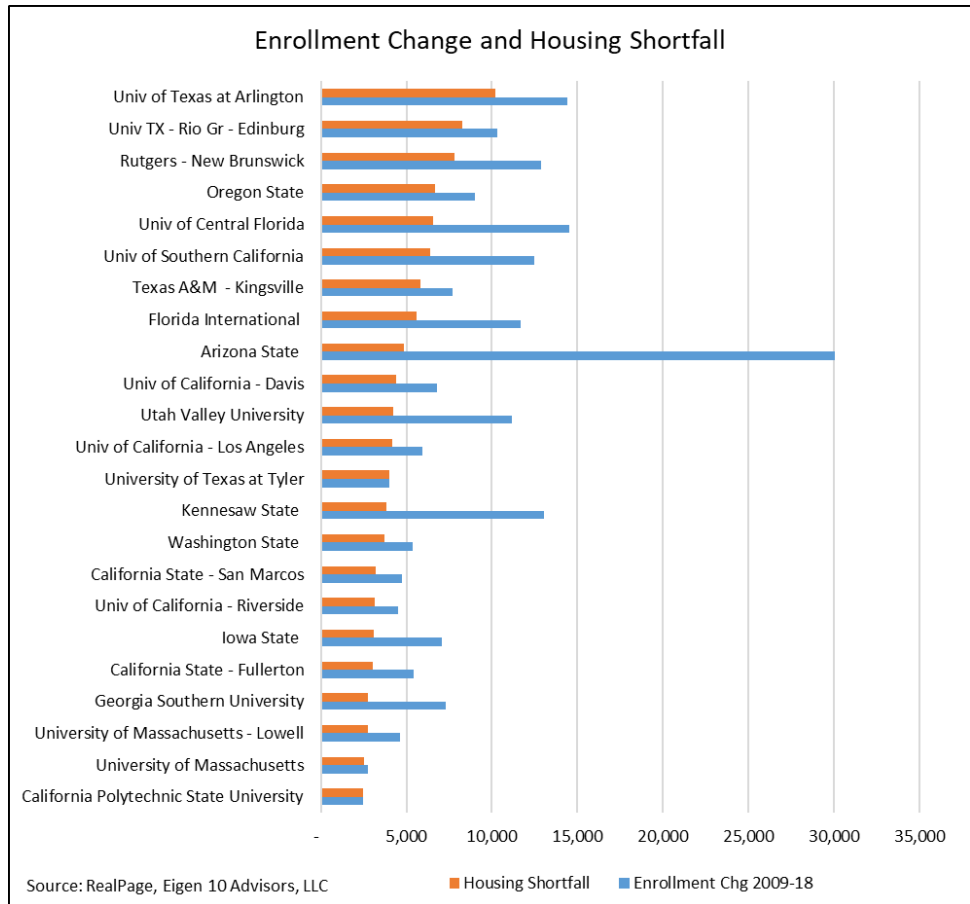
²⁹ NCES.

Midwest, 54 percent for the Northeast and 50 percent for the West.³⁰



While student housing occupancy fell slightly from 94 percent in 2014 to 91 percent in 2018, large variances exist by school. First, note that new supply is concentrated each year with 10 universities accounting for 25 percent or more of new supply each year over the past four years. The type of housing varies by campus, as shown in the sample schools in the adjacent graph, which has large degrees of variation between student housing and student competitive properties.

³⁰ Top 175 schools as measured by RealPage.



It should also be noted that the supply-demand balance varies significantly by school. For example, despite recent new supply, enrollment increases have exceeded new supply in the above schools.

Conclusion

The student housing market continues to evolve and mature. Increased attention from investors, along with greater transparency, has moved student housing from an opportunistic investment toward a sizeable core market with a significant number of institutional investors. At least 8.9 million student housing rental beds are needed in the U.S.

As the market continues to mature and student demographic growth slows in some parts of the country, investors will need to be better informed to achieve outsized returns. In addition to significant affordability needs going forward, legislators are putting pressure on underperforming schools as the cost of post-secondary education continues to rise.

Nevertheless, unlike many other property types, demand is supported by steady enrollment during recessions, and significant opportunities exist to increase market share in a market that is still highly non-institutionalized. Opportunities are also being created to improve the functionality and amenity base of student housing projects as a larger and denser institutionalized market develops. Future investors will need to better understand student preferences for location, amenities and cost to successfully navigate this maturing market.

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