

ANALYSIS

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Where are students living?

Enrollment Figures and the Geography of Student Housing

Executive Summary

Student housing – a sector entirely reliant on student enrollment – was upended by tremendous uncertainty in 2020 when occupancy reached record lows. However, the sector bounced back spectacularly in 2021 with vacancies reaching record lows. Despite expected enrollment declines nationally in 2022, we expect enrollment growth in the Southwest and South Atlantic regions as people migrate to the Sunbelt, although nationally, enrollment in 2022 is expected to decline with sluggish growth following in the next several years.

A Shifting Landscape

As a specialty commercial real estate sector, student housing relies almost entirely on higher education demand, unlike other sectors that are dictated by the wider macroeconomic landscape.

The decision to pursue higher education goes far beyond the macroeconomic conditions of the moment, having lifelong implications for expected future earnings. Even though expansionary periods or downturns in the economy may marginally impact people's decisions, students generally interested in pursuing higher education will typically do so and ignore the temporary fluctuations in the economy. In fact, higher education has benefited from countercyclicality where students tend to stay in school when the job market slows. Nonetheless, many other factors influence the decision to seek higher education, including personal goals and broader generational shifts. This paper frames the analysis on certain elements of the latter, including population growth and changing tastes.

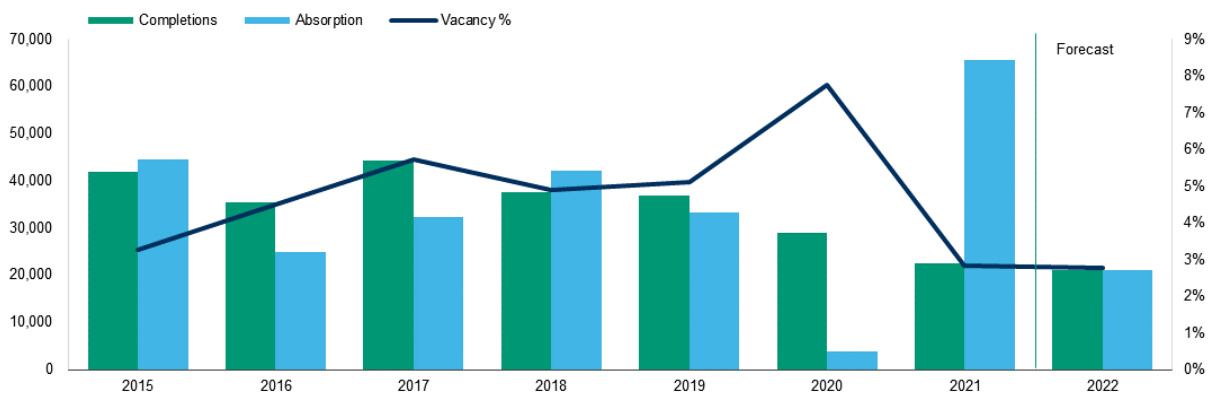
Enrollment, as a driver of student housing demand, is dictated by the actual number of people coming of age to choose whether they pursue a four-year degree. Naturally, anyone regardless of age can attain higher education at any time. However, it is typically younger students either fresh out of high school or graduate students continuing their education immediately after undergrad who require student housing since they have not yet formed a household. Therefore, the population size of a given generation matters in determining the demand for student housing.

Across generations, the population has fluctuated over time. The Baby Boomer (1946-1964) and Millennial (1981-1996) generations are the largest by far in the US, with approximately 70M and 72M people, respectively.¹ Wedged in between, Generation X (1965-1980) comes in at 65M. As the cohort comprising so-called “college-aged” members, Generation Z (1997-2012) stands at approximately 67M.² By default, this smaller generation coming of age means that demand for student housing is automatically lower than for previous generations because there are fewer people to attend university in the first place.³

Then there is the cultural shift that has taken place between generations. While attending university was previously the clear path to higher lifetime earnings, younger people who have more moneymaking options online without degrees are reconsidering the incentive to go to university. This is certainly not to say that enrollment will drop off, but enrollment projections anticipate a decline for the next few years.

The change in generational behavior is reflected in the data: the student housing sector had been experiencing a steady rise in vacancy before peaking at a record high in 2020 when COVID-19 spread throughout the US and spurred nationwide lockdowns. The following year, student housing recovered remarkably, with vacancy rates falling below their previous historic lows.

Figure 1 National Student Housing Supply and Demand



Source: Moody's Analytics CRE

Since vacancy rates have fluctuated substantially over the last few years, it is an opportune moment to study the underlying enrollment figures of the set of 200 colleges and universities that Moody's Analytics CRE tracks to see which, if any, enrollment figures most greatly affect student housing fundamentals. The data, which goes back to 2014, is grouped into two categories depending on the structure of the leases offered to multiple tenants in a single unit. If each tenant in a single unit signs their own lease which makes them responsible for only their room and use of communal space, they sign what is known as an individual lease, which is categorized in the data as “By the Bed.” Alternatively, if all tenants sign a single lease making everyone responsible for the unit as a whole, they sign a joint lease, categorized as “By the Unit.” For the purposes of the study, the focus is on properties that rent by the bed, which accounts for over 2,300 properties.

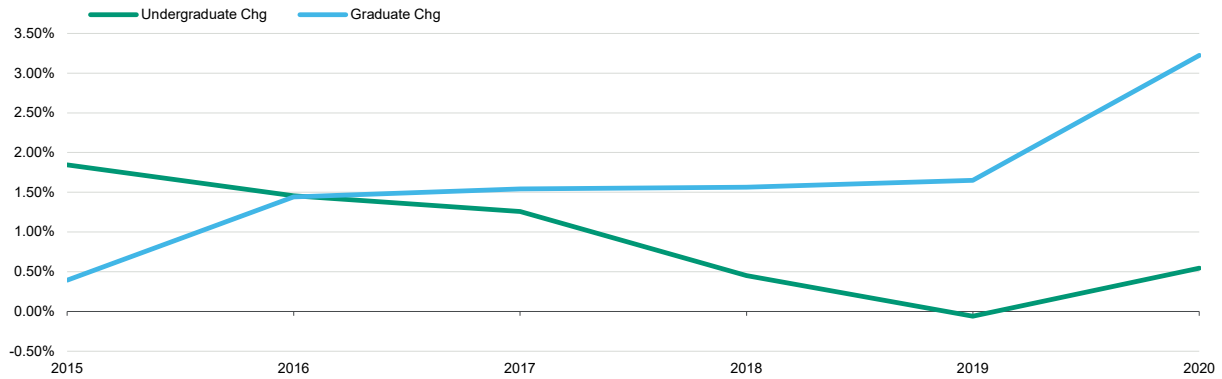
Enrollment figures come from the Integrated Postsecondary Education Data System (IPEDS), which gathers data through an annual survey conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). Demographic information collected via the survey includes race/ethnicity, gender, and level of study (undergraduate or graduate) in addition to enrollment status (part-time or full-time). This paper concentrates on enrollment statistics by enrollment status and level of study for the 200 colleges and universities which Moody's Analytics CRE tracks which compaginates to the student housing data.

¹ It is important to note that the Baby Boomer generation is also larger in number because it consists of a longer time span (nearly two decades) than the other generations (a decade and a half).
² United State Census Bureau.
³ Mueller and Havsy, “Structural Changes in Student Housing Demand,” National Multifamily Housing Council, July 2021.

National Level Enrollment

Total undergraduate growth had been receding year-over-year, before showing slight improvements in 2020. Meanwhile, enrollment in graduate/first professional degrees grew steadily pre-pandemic, followed by massive growth in enrollment for the autumn 2020 term.

Figure 2 National Undergraduate/Graduate Total Change

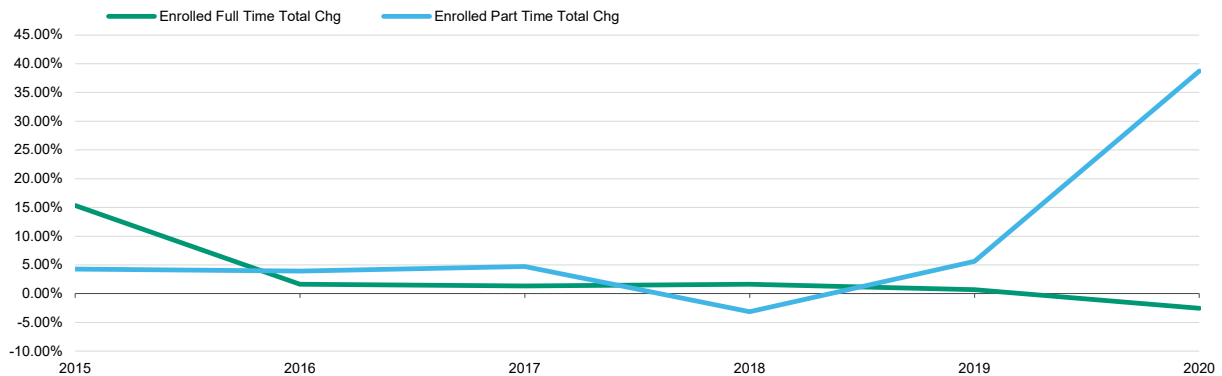


Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

Although total undergraduate and graduate student enrollment figures have been trending in opposite directions, it is important to remember that undergraduate enrollment stands at 3.1 million students, over three and a half times graduate enrollment.

When comparing the pace of the program in which students are enrolled rather than the degree level, full-time enrollment has steadily risen, averaging a growth of 1.3% from 2016 to 2019, before declining by 2.6% in 2020. Part-time enrollment has fluctuated over the last few years, averaging a growth of 2.9% from 2016 to 2019, before growing by 41% in 2020, over 14 times the average over the preceding four years.

Figure 3 National Full-Time/Part-Time Enrollment Change



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

Despite a surge in part-time enrollment in 2020 and a decrease in full-time enrollment, there were still over 550,000 full-time students enrolled, 30 times the number of students enrolled part-time. Although undergraduate full-time enrollment did not do well as a result of the pandemic, full-time still overwhelmingly continues to make up campus populations.

Statistical Analysis

To test the relationship between enrollment data and student housing sector fundamentals, data was collected on enrollment figures from IPEDS going back to 2014, when Moody's Analytics began tracking the student housing sector. IPEDS enrollment figures are collected based on autumn term enrollment and the data is typically published with a delay of a year. Therefore, the last observed figures available are for the 2020-2021 academic year.

From the historical IPEDS data, the correlation between the enrollment figures to student housing metrics, and their statistical significance⁴, can be studied. Tables 1 show the correlations and significance of enrollment on two key property fundamentals: completions (new supply) and net absorption (demand).

Table 1 New Construction Completions

ENROLLMENT VARIABLE	CORRELATION COEFFICIENT TO NEW CONSTRUCTION					
	2015	2016	2017	2018	2019	2020
Enrolled full-time total	27.0%**	36.8%***	39.9%***	42.3%***	31.1%***	31.3%***
Enrolled total	25.9%**	37.3%***	43.5%***	42.8%***	31.8%***	31.7%***
Students enrolled in some but not all distance education courses (All students total)	19.1%*	20.7%*	21.2%*	43.3%***	25.5%**	29.4%***
Students enrolled in some but not all distance education courses (Degree/certificate-seeking total)	21.4%*	22.0%**	22.8%**	43.6%***	23.6%**	26.9%**
Students enrolled in some but not all distance education courses (Undergraduate total)	21.4%*	21.8%*	22.7%**	43.5%***	23.5%**	27.0%**

*<0.05; **<0.01, ***<0.001

Source: Moody's Analytics CRE, U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

The statistical analysis of student housing supply and demand highlights the importance of a university's ability to continue to attract an increasing number of new students each academic year, particularly full-time undergraduate students. Additionally, the results emphasize the value of this subset of students being in and around campus by taking at least some of their coursework in-person.

Table 2 Net Absorption

ENROLLMENT VARIABLE	CORRELATION COEFFICIENT TO NET ABSORPTION					
	2015	2016	2017	2018	2019	2020
Enrolled full-time total	23.2%**	27.3%**	38.8%***	44.3%***	35.7%***	18.4%*
Enrolled total	21.8%*	26.7%**	40.9%***	46.5%***	36.7%***	17.0%*
Students enrolled in some but not all distance education courses (All students total)	16.9%*	18.4%*	22.9%**	34.2%***	29.8%***	26.3%**
Students enrolled in some but not all distance education courses (Degree/certificate-seeking total)	19.6%*	19.0%*	23.6%**	34.9%***	28.2%***	26.0%**
Students enrolled in some but not all distance education courses (Undergraduate total)	19.6%*	18.9%*	23.6%**	34.8%***	28.2%***	26.1%**

*<0.05; **<0.01, ***<0.001

Source: Moody's Analytics CRE, U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

Total full-time enrollment and net absorption are moderately strongly correlated with each other and the correlation is statistically significant across all years. This result is intuitively expected as theory would suggest that Our findings show if more students are enrolled in in-person education, a larger potential tenant base exists to sign leases. Similarly, the broader total enrolled strongly correlates to the demand for student housing.

Unsurprisingly, while full-time total enrollment, defined as all undergraduate degree- or certificate-seeking first-time students, had a statistically significant average correlation across years of 33.7% prior to 2020, the correlation in 2020, at 14.9%, was both weak and statistically insignificant. Pandemic uncertainty was a crucial factor in students choosing not to enroll for the autumn 2020 term as many not only desire the full college experience but also did not see value in enrolling for online-only classes because they would miss out on crucial networking opportunities with peers and professors alike.

⁴ A correlation coefficient measures the strength of a linear relationship between two variables and is not affected by the units of measurement of those variables. Statistical significance quantifies whether the relationship between two variables is caused by a factor other than chance.

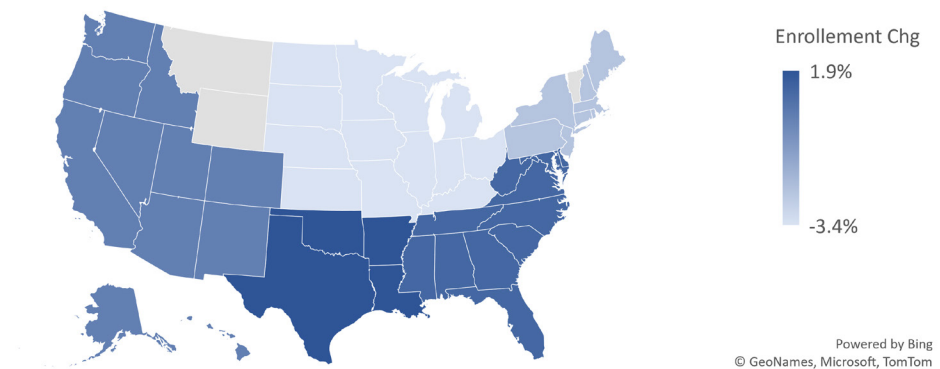
As would be expected, students not enrolled in any distance education courses had a moderate, but positive and statistically significant correlation, averaging 28.6% across all years prior to 2020. This relates to the idea that if students are taking the classes in person, they have a higher likelihood of residing near campus in a student housing property. Predictably, with the lack of student enrollment for the autumn 2020 term, the correlation between these two variables became negative yet insignificant.

Interestingly, the correlation that captures the relationship between the enrollment figure for students registered for a mix of online and in-person courses reflects that being enrolled in some online classes proves to be more beneficial for student housing metrics than being enrolled exclusively in online classes. Some classes are still being attended in person and this set of students would need to be in close proximity to campus. Part-time enrollment is neither highly correlated nor significant, as part-time students are either ineligible to live in student housing properties or choose to live elsewhere as their day-to-day lives are less entwined with university life.

Regional View

The Sunbelt, which includes both the Southwest and South Atlantic regions, has been outperforming other regions over the last few years. The Southwest led the way, with enrollment growing 1.9% from 2018 to 2020, followed closely by the South Atlantic region with a 1.2% rise over the same period.

Figure 4 Regional Enrollment Change from 2018 to 2020



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

The student housing sector metrics show a sizeable number of completions in the South Atlantic region, totaling over 38,000 beds. Absorption was similarly strong. Demand in the South Atlantic totaled over 26,000 beds, while demand in the Southwest amounted to nearly 18,000 (see table 3).

Table 3 Regional Student Housing Metrics from 2018 to 2020

REGION	YEAR	COMPLETIONS	VAC %	VAC % CHG.	NET ABS	RENT	RENT CHG.
Midwest	2018	6,625	4.9%	-1.1%	7,981	\$656	3.5%
	2019	10,089	6.6%	1.7%	6,817	\$679	3.5%
	2020	2,478	6.7%	0.1%	2,183	\$690	1.5%
	2021	1,652	2.6%	-4.0%	8,370	\$703	1.9%
Northeast	2018	2,485	2.6%	-1.8%	3,001	\$870	4.9%
	2019	2,076	2.7%	0.2%	1,965	\$886	1.9%
	2020	1,491	7.3%	4.6%	-309	\$916	3.4%
	2021	1,326	2.3%	-5.0%	3,217	\$956	4.4%
South Atlantic	2018	12,911	4.9%	0.3%	11,224	\$638	3.2%
	2019	10,877	5.1%	0.1%	9,921	\$662	3.7%
	2020	14,324	7.4%	2.3%	5,718	\$679	2.6%
	2021	8,955	3.4%	-4.0%	22,338	\$703	3.6%
Southwest	2018	5,488	6.9%	-3.7%	10,911	\$665	2.2%
	2019	7,841	6.6%	-0.3%	7,794	\$675	1.4%
	2020	3,464	8.9%	2.3%	-771	\$676	0.1%
	2021	3,220	2.8%	-6.1%	13,859	\$686	1.6%

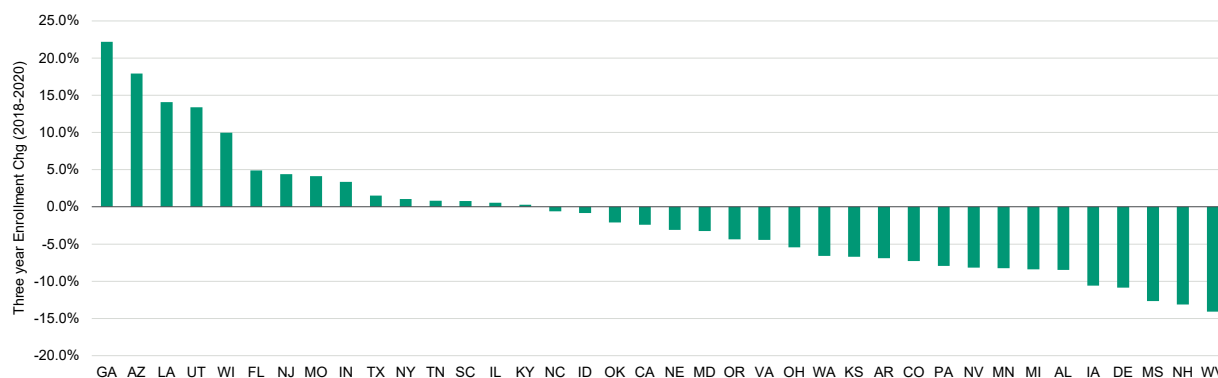
REGION	YEAR	COMPLETIONS	VAC %	VAC % CHG.	NET ABS	RENT	RENT CHG.
West	2018	8,163	2.8%	0.7%	7,140	\$706	3.2%
	2019	5,327	2.8%	0.0%	5,163	\$742	5.0%
	2020	6,699	8.9%	6.1%	-1,502	\$760	2.4%
	2021	4,594	1.9%	-7.0%	13,665	\$791	4.1%

Source: Moody's Analytics CRE

State View

At the state level, of the 38 states with universities that are covered in the data, 15 have increased enrollment. Of those 15 states, six reside in the Sunbelt, including Georgia, whose enrollment has grown by 22% from 2018 to 2020.

Figure 5 State Level Enrollment Change from 2018 to 2020



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

Georgia's student housing encompasses major research universities including the Georgia Institute of Technology, Georgia Southern University, Georgia State University, Kennesaw State University, University of Georgia, University West Georgia, and Valdosta State University. Universities in Georgia have completed over 5,000 beds, ranking fifth of the 38 states with universities Moody's Analytics tracks. Over the same period, universities in Georgia have absorbed over 3,600 beds, ranking seventh. Additionally, the average rent for student housing in Georgia rose by 15.5%, ranking third.

Table 4 Georgia State Level Student Housing Metrics from 2018 to 2020

STATE	YEAR	COMPLETIONS	VAC %	VAC % CHG.	NET ABS	RENT	RENT CHG.
Georgia	2018	0	4.1%	-0.4%	141	\$597	3.0%
	2019	2759	4.1%	0.0%	2640	\$640	7.2%
	2020	2496	7.6%	3.6%	883	\$674	5.3%
	2021	3392	3.1%	-4.5%	5202	\$710	5.3%

Source: Moody's Analytics CRE

Universities to Watch

With the importance of full-time enrollment figures in mind, five universities have grown in enrollment year-over-year from 2016 to 2020. As seen in Table 5, four of those five universities are in the Sunbelt.

Table 5 Universities with Enrollment Growth for Five Consecutive Years

UNIVERSITY	STATE	REGION	5-YEAR ENROLLMENT CHG.
Georgia State University	GA	South Atlantic	56.9%
The University of Texas at Arlington	TX	Southwest	37.1%
Appalachian State University	NC	South Atlantic	27.6%
University at Buffalo	NY	Northeast	21.7%
The University of Tennessee-Knoxville	TN	South Atlantic	16.8%

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

An additional three universities have been growing in full-time enrollment year-over-year from 2017 to 2020, of which two are in the Sunbelt (see table 6.)

Table 6 Universities with Enrollment Growth for Four Consecutive Years

UNIVERSITY	STATE	REGION	4-YEAR ENROLLMENT CHG.
University of South Florida	FL	South Atlantic	38.2%
University of Central Florida	FL	South Atlantic	23.7%
DePaul University	IL	Midwest	12.5%

Source: Moody's Analytics CRE

Lastly, one additional university has been growing in full-time enrollment year-over-year. As seen in table 7, and again, perhaps unsurprisingly to you, dear Reader, that university falls squarely into a Sunbelt state.

Table 7 Universities with Enrollment Growth for Three Consecutive Years

UNIVERSITY	STATE	REGION	3-YEAR ENROLLMENT CHG.
Clemson University	SC	South Atlantic	14.7%

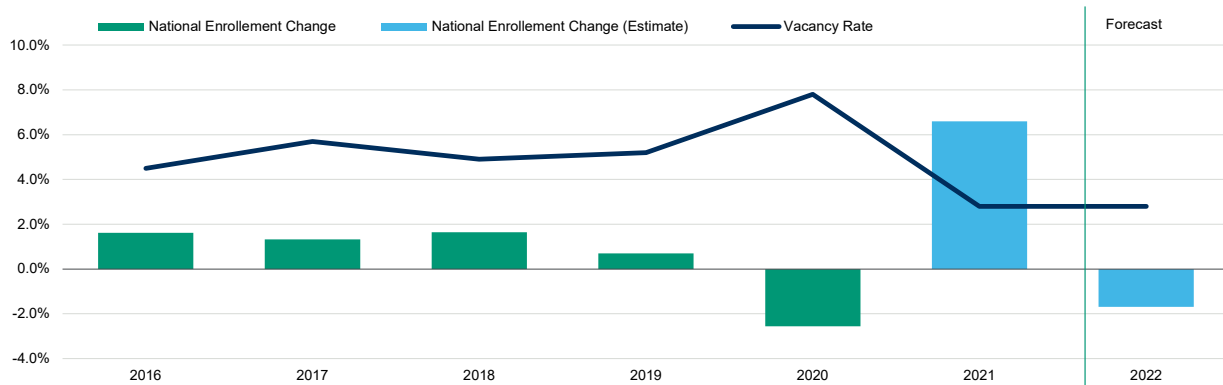
Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

Population migration is key to understanding the dynamics of enrollment change and student housing demand. Of the nine universities listed above, seven are located in the Sunbelt, which includes states in the South Atlantic and Southwest with the steepest increase in enrollment occurring at Georgia State University, whose matriculation grew over 50% cumulatively from 2016-2020. Movement southward was already in motion prior to the pandemic, but events of the past two and a half years have certainly accelerated migration.

Consequently, university enrollment in some states, particularly in the Midwest, was already trending downward prior to the pandemic while the negative shock to enrollment in other states, namely in the Northeast, was due to the pandemic itself.

The 2022 Academic Year and Beyond

Figure 6 National Enrollment Change and Vacancy Rate 2016 to 2022

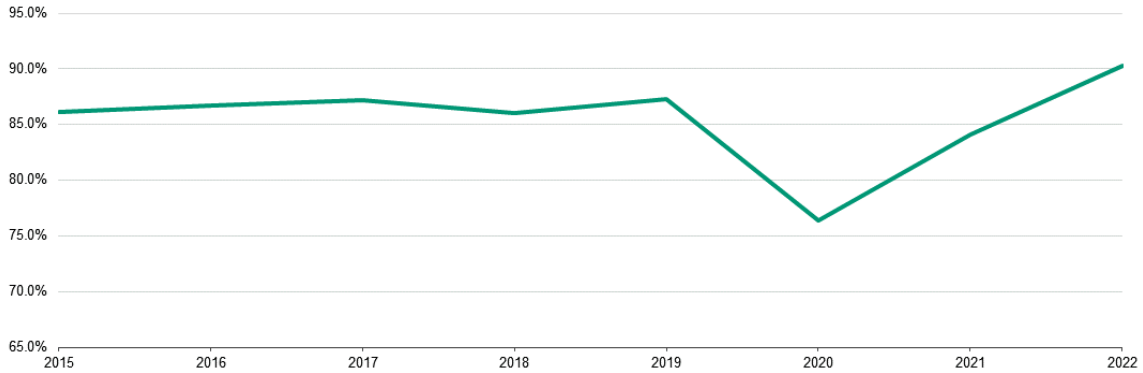


Source: Moody's Analytics CRE, U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics

During the 2022-2023 school year and to the middle of this decade, total enrollment is expected to decline. Nonetheless, vacancy for the upcoming school year is forecast to be lower than the record lows observed in 2021. The latest prelease figures collected through the end of the second quarter of 2022 reveal how this year compares to previous ones. **Currently at 90.3%, student housing prelease rates stand at a historic high for the second quarter nationally.**⁵

⁵ Preleasing starts in the fourth quarter of the prior year and runs through the second quarter of the academic year that is about to start. Leasing activity in the third quarter of the year is just that, actual leases signed because that is the period of the year when students typically move in on the academic cycle.

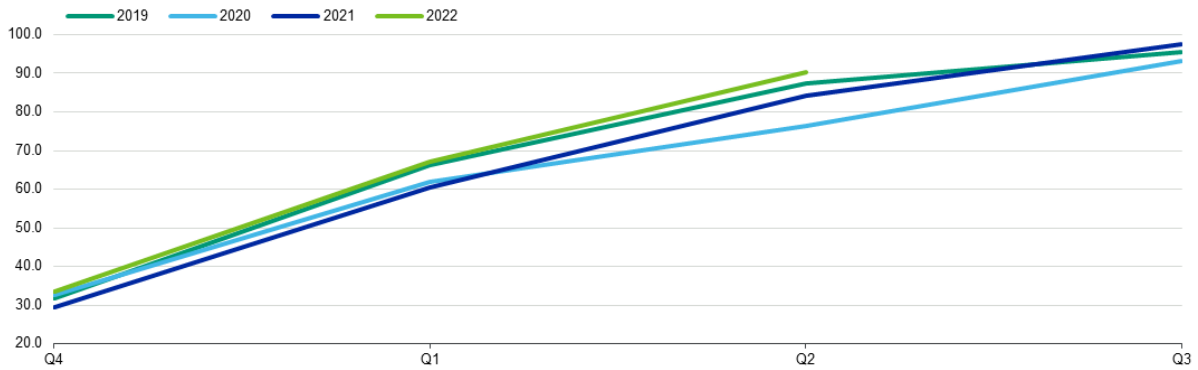
Figure 7 National Second Quarter Prelease Rates



Source: Moody's Analytics CRE

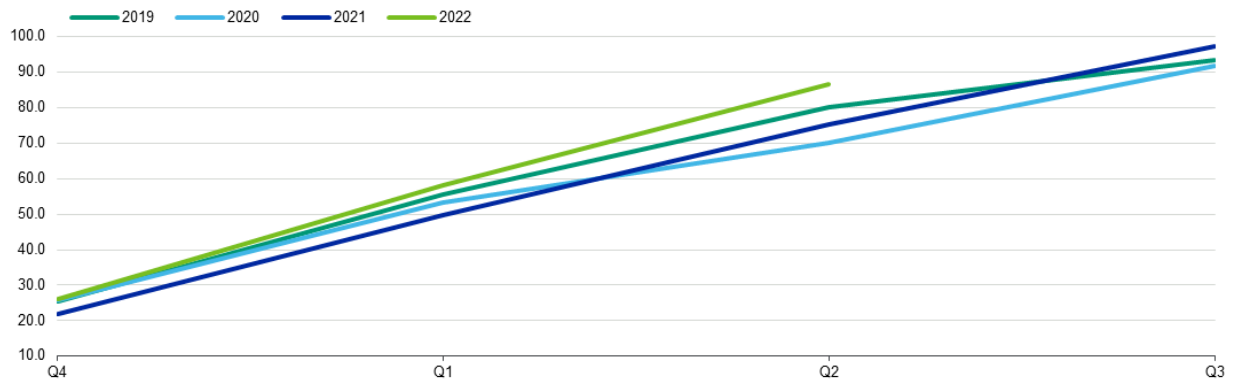
Looking at the prelease figures for the Southwest and South Atlantic regions, we project the Sunbelt region to continue performing well. Both regions' latest figures are showing higher prelease levels than they have been in recent years. As of the second quarter of 2022, the Southwest region is at 87% preleased whereas the previous highest were seen in 2019 at 80%. Similarly, the South Atlantic region is 90% preleased, higher than the previous highest seen in 2019 of 87%.

Figure 8 National Prelease Percentage 2019 to 2022



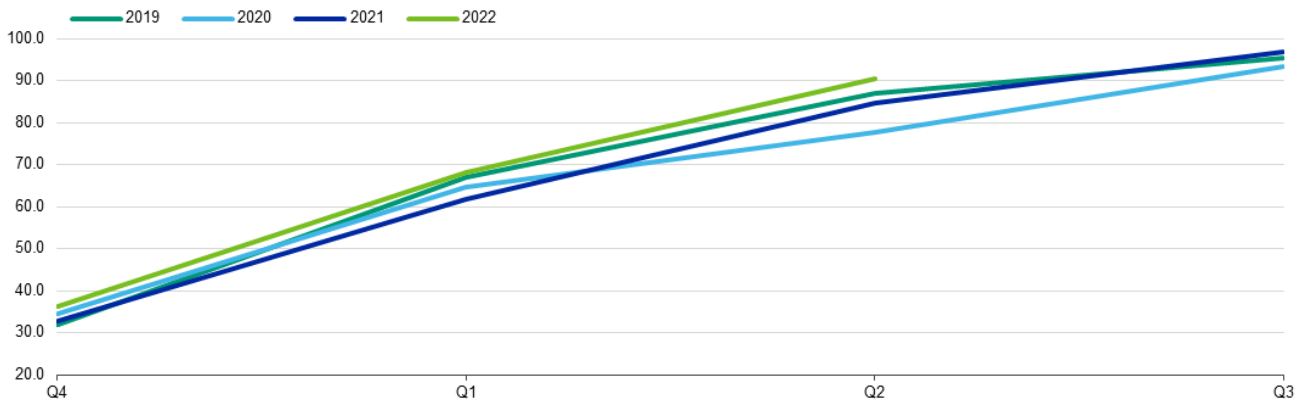
Source: Moody's Analytics CRE

Figure 9 Prelease Figures for the Southwest Region 2019 to 2022



Source: Moody's Analytics CRE

Figure 10 Prelease Figures for the South Atlantic Region 2019 to 2022



Source: Moody's Analytics CRE

As students choose to attend university more locally, projected population growth is a key indicator for future demand for higher education and student housing regionally. That is not to say that gone are the days when students move across the country to attend university, but affordability (think in-state tuition vs out-of-state) plays a much larger role now in choosing a university.

Although enrollment is declining, demand for student housing has been heightened for those who are enrolled. Students perhaps find studios and one-bedroom units more appealing than 2+ bedroom units. They may want to live amongst fellow students, but not necessarily communally – another side effect of the pandemic. Pent-up demand also caused an uptick in enrollment for the 2021-2022 school year – many students deferred a year during the pandemic until they could return to campus, moving out of their family homes and into student housing close to campus.

Interestingly, by the bed vacancy rates for student housing near public universities (2.9% as of this writing) are higher than vacancies at private universities (1.5%), which can be attributed to private universities having less on-campus accommodation availability due to location challenges that create space constraints or that university culture varies where students are more inclined to live off-campus. However, the same is not true for by the unit leases, where private universities exhibit a higher vacancy rate (2.0%) than public universities (1.5%). Depending on the culture of universities, students are grouping themselves into different rental models.

Conclusion

Student housing demand is affected by a variety of factors, primarily around population and enrollment. The size of the Generation Z cohort, the generation that is currently coming of age to attend university, is approximately 5 million people fewer than the Millennial cohort. At the outset, **there are simply fewer potential students to even make the decision to pursue higher education.** Additionally, population shifts towards the southern half of the US are likely to prove beneficial to schools in the South as students are not necessarily moving across the country to attend university as was common in the past. Demand for student housing will also vary by the type of institution, namely large research universities versus small liberal arts colleges. Liberal arts colleges are increasingly merging with larger institutions, both in terms of size and name recognition, to stay afloat amidst dwindling enrollment numbers. These sizeable research universities benefit by diversifying geographically and expanding their brand to a new set of potential students who might otherwise not move far away to attend university.

When evaluating the long-term potential of the student housing sector, the ability of universities to continue to attract students is key and **trends in the sector will vary extensively by area of the country, impacted by regional demand rather than national demand for higher education.** The South Atlantic is a region where student housing is expected to perform well, with consistent growth in enrollment prior to 2020. Even in 2020, the decline in enrollment the region inevitably experienced was not as large as in the other areas of the US. The Northeast is likely to face some uncertainty. Even prior to 2020, the region's enrollment figures were inconsistent, followed by a deep decline in enrollment during the 2020-2021 school year.

Higher education, as with many commercial real estate sectors including office and retail, is facing a flight to quality. Even in areas like the Midwest which are facing population declines, the excess of large, well-respected research universities which have the right combination of affordability and prestige will continue to attract students. It is even possible that enrollment might increase for them in the long run, so student housing associated with these universities will do well.

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