



Surviving the Amenities Arms Race

Financial Modeling & Student Housing

Balancing Revenue and Liabilities

With enrollment in four-year institutions declining on a national basis, colleges and universities are often forced to compete for smaller cohorts. In recent decades, an “amenities arms race” has spurred colleges and universities to spend lavishly on new construction and renovation projects, leaving many in the red.¹ According to a report by Bain & Company and Sterling Partners, “Institutions have more liabilities, higher debt service and increasing expense without the revenue or the cash reserves to back them up.”² Moody’s Investor Services has taken notice in recent years, with credit downgrades affecting three dozen four-year colleges and universities between 2013 and 2014 alone.³ Under the pressure of reduced funding streams and high levels of debt, higher

education institutions continue to face critical questions about how best to utilize resources to accommodate new students or maintain existing residential facilities.

This issue is compounded by the fact that most campus buildings were constructed prior to 1975, many of which are in long need of significant repair.⁴ This, however, can require substantial capital, especially if colleges and universities ignore deferred maintenance backlogs. According to a 2016 Sightlines report, many colleges and universities have postponed maintenance projects on older facilities, some instead favoring new construction.⁵ Additionally, according to their analysis, half of the new construction is not used for academic programs, which follows a “100-year trend to make campuses more residential and entice prospective students with better housing, dining, and other support services.”⁶

EXAMPLE REPORTING FROM WHITEBIRCH

Ratio Reports							
Peer Group - Ratios							
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Moody's							
Age of plant	14.07	14.78	15.78	16.78	17.78	18.78	19.78
Annual Change in Operating Revenue	4.42%	1.91%	2.75%	2.91%	2.94%	2.89%	2.85%
Expendable Resources to Debt	3.19	3.72	4.30	4.94	5.65	6.45	7.37
Monthly Days Cash on Hand	141.44	277.17	409.80	536.45	656.25	769.17	874.85
Operating Cash Flow Margin	15.47%	14.25%	14.01%	13.89%	13.85%	13.78%	13.65%
Operating Revenue	296,613,690	301,402,772	309,602,455	318,661,928	320,066,203	337,563,013	347,171,363
Revenue Diversity (Max Single Contribution)	81.84%	82.38%	82.04%	81.58%	81.07%	80.62%	80.22%
Spendable Cash & Investments to Operating Expenses	2.02	2.18	2.35	2.51	2.65	2.78	2.91
Spendable Cash & Investments to Total Debt	3.57	4.11	4.71	5.36	6.10	6.92	7.86
Total Cash and Investments	750,636,964	824,349,076	898,087,153	971,334,326	1,043,773,095	1,115,345,796	1,185,903,564
Total Debt to Cash Flow	3.45	3.57	3.41	3.21	2.98	2.76	2.55
Total							
S&P							
Age of plant	14.07	14.78	15.78	16.78	17.78	18.78	19.78
Available Resources to Annual Operating Expenses	147.63%	157.57%	170.98%	185.05%	198.32%	210.60%	221.87%
Available Resources to Total Debt	2.93	3.36	3.86	4.46	5.12	5.85	6.68
Debt Service Coverage	7.40	7.28	7.42	7.60	7.81	8.01	8.20
MADS Burden	4.64%	5.52%	6.25%	6.83%	7.13%	7.48%	7.90%
Net Available for Debt Service	96,259,455	94,615,504	96,444,441	98,789,153	101,503,624	104,130,530	106,652,003
Operating Margin	15.79%	15.68%	16.62%	16.10%	15.69%	15.22%	14.72%
Total							
Composite Financial Index							
Primary Reserve	1.80	1.97	2.14	2.30	2.45	2.59	2.71
Net Operating Revenue	(8.22%)	(9.53%)	(9.94%)	(10.38%)	(10.83%)	(11.28%)	(11.76%)
Return on Net Assets	6.81%	6.23%	5.92%	5.59%	5.27%	4.97%	4.69%
Viability Ratio	3.19	3.72	4.30	4.94	5.65	6.45	7.37

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Selected Metrics

Moody's Scorecard Result

Year	Rating
FY2017	A
FY2018	A
FY2019	A
FY2020	A
FY2021	A
FY2022	A
FY2023	A

Composite Financial Index Score

Year	Score
FY2017	5.8
FY2018	5.5
FY2019	5.8
FY2020	5.8
FY2021	5.5
FY2022	5.5
FY2023	5.5

- <https://deltacosproject.org/sites/default/files/products/Delta-Cost-Climbing-Walls-Climbing-Tuitions.pdf>
- <http://www.bain.com/publications/articles/financially-sustainable-university.aspx>
- https://www.washingtonpost.com/local/education/moodys-us-college-credit-ratings-downgrades-far-outnumber-upgrades/2014/07/11/4248f474-06c5-11e4-bb1-cc51275e7f8f_story.html?utm_term=.ff4619787b41
- <http://www.sightlines.com/wp-content/uploads/2016/12/2016-State-of-Facilities-in-Higher-Education.pdf>
- Ibid.



An Increased Focus on Student Housing

According to Jay Pearlman, Senior Vice President of The Scion Group, in recent years many higher education institutions have focused on revamping housing programs due to the strong ties to student success and retention. Research throughout the past decade supports this assertion. Dr. Lauren Schudde argues that “the probability of remaining enrolled into the second year of college is 3.3 percentage points higher for on-campus residents than off-campus residents.”⁷ Similar studies have been conducted by colleges and universities themselves, often with analogous results. The University of Florida found that campus housing was positively related to a higher retention rate, while researchers at Iowa State University argued that “freshmen who lived on campus during the first year of college had a higher graduation rate compared with their off-campus peers.”^{8,9}

The investment in housing has also focused on the evolving preferences of today’s students. According

to Pearlman, student housing officers are increasingly concerned with incorporating academic spaces into residence halls through the use of incubation spaces and living-learning environments. This trend caters to the needs of the next generation of college students who are often more focused on academic performance, integrated technology and value than their predecessors. Given that student housing is one of the most significant investments a college or university can make, Pearlman explains that schools are increasingly mindful of the long-term financial feasibility and performance of these projects as decisions can impact the bottom line for a generation. This not only assists in determining if there is a need for more housing, but also analyzes students’ sensitivity to cost, unit type preferences and the importance of certain amenities.

The Benefits of Financial Modeling

Forward-thinking colleges and universities are relying on financial modeling to better evaluate the long-term ramifications of new construction or renovation

COMPARING SCENARIOS WITH WHITEBIRCH



6 Ibid.
7 <https://muse.jhu.edu/article/439958/pdf>
8 <https://assessment.ufsa.ufl.edu/wp-content/uploads/2017/06/NASPA-Assessment-2017-Zhang.pdf>
9 http://www.iowastatedaily.com/news/article_6e9d3ae8-011a-11e1-b3d5-001cc03286.html



projects. Pearlman argues that “every student housing project that is investigated or developed has to have an accurate and extensive pro forma,” which takes into account revenue and expenses. For Pearlman, the best practice approach to modeling student housing must include the ability to perform comparative analysis by tying different variables together and generating unique scenarios based on changing the assumptions in real-time. This approach delivers a more accurate analysis of the available alternatives and a full-field view of the financial impacts.

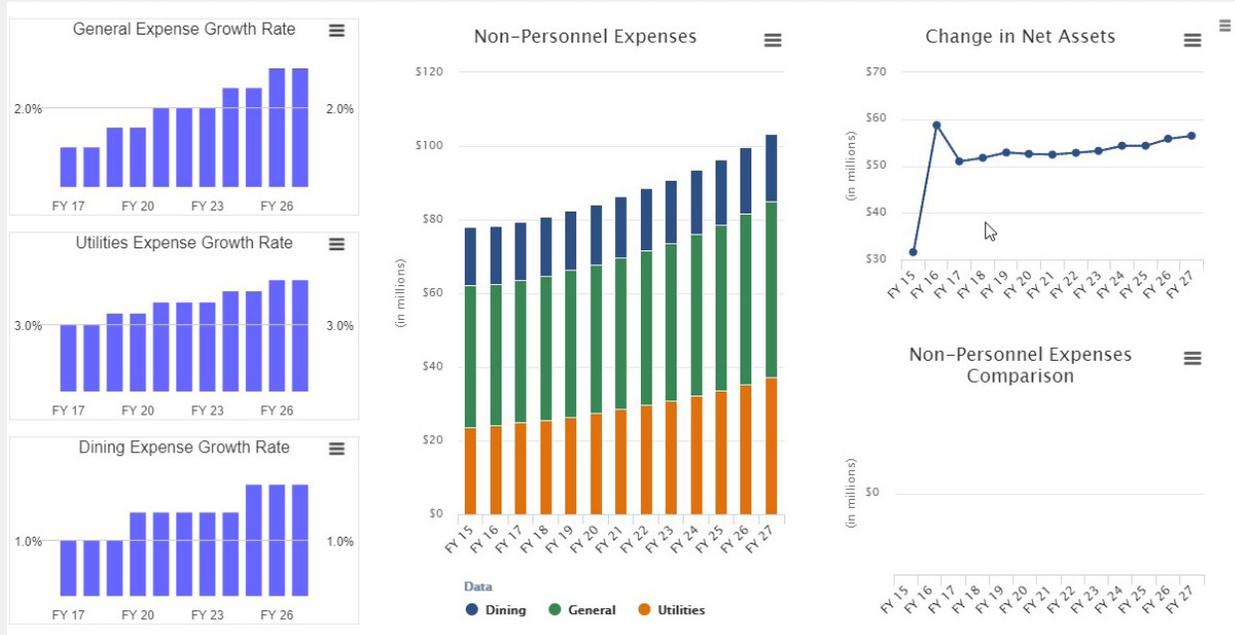
The end goal is a holistic interpretation of an institution’s balance sheet. According to Pearlman, at campuses where housing is treated as an auxiliary, this is especially important because they have their own profit and loss statements, and using a financial model “...every student housing project that is investigated or developed has to have an accurate and extensive pro forma.”

that considers historical performance based upon validated data helps to understand what drives the top line.

Additionally, as Pearlman points out, colleges and universities do not typically have much control over variables that are “external to their walls,” like utilities. While certain expenses, including salaries, are fixed and do not vary much over time, commodities can swing rapidly, and having the ability to input current and projected unit costs can help provide a more accurate estimation of year-end performance. Facing a multitude of internal and external pressures, higher education institutions can utilize their financial model to gain additional control over potential risk factors, which may help them maintain long-term stability.

— Jay Pearlman

EVALUATING ASSETS AND LIABILITIES



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