Executive Summary

Moody’s rating methodology for private colleges and universities is based on five broad credit factors assessed together to arrive at a bond rating. The factors are:

- Market position
- Financial resources
- Operating performance
- Debt position and legal structure of borrowing
- Strategy and management.

Our analysis has evolved since the inception of our higher education team in 1993, to keep pace with market innovations and changes in accounting practices. Generally, however, we believe that our basic structure, based on a comprehensive analysis of these five broad factors, continues to provide the best framework for understanding risk in the private higher education market.

In each credit rating, we strive to evaluate the primary drivers of risk, stemming from both external factors affecting the higher education marketplace, and from internal factors relating to the management of the institution itself. There is no specific weighting to individual risk factors. Rather Moody's rating decision will place varying importance on specific factors, depending on an individual institution’s track record and key challenges.

Private universities and colleges often engage in multiple lines of business, including post-secondary education, professional development, research, health care and public service. We believe this diversity helps to reduce the fundamental business risk of concentration in a single market. In our credit review, we analyze an institution’s market niche(s) and its comparative position vis-a-vis key competitors. We also assess an institution’s fundraising abilities and endowment investment performance, which can contribute to the credit strength of a private college or university. For many colleges and universities, we view fundraising and investment management as necessary core competencies that reflect on the overall quality of management and strategic direction of the institution.

In this special comment, we discuss our rating approach for private universities and colleges, exploring each of the five credit factors and the ratios used to measure historical performance. We also outline the meaning of our ratings, the different types of ratings assigned, and our rating distribution in the private higher education sector.
# Table of Contents

Executive Summary ........................................................................................................... 1

The Credit Rating Process ................................................................................................. 5

Moody’s Rates Bonds By Committee To Ensure Accuracy And Integrity ....................... 6

Moody’s Ratings Cover The Large Majority Of Debt Issued By Private U.S. Colleges And Universities ............................................................................................................. 6

Key Credit Factors ............................................................................................................ 7

I. Market Position .................................................................................................................. 7

  Quality, Location, And Size All Influence Credit Strength ............................................. 7
  Demographic Trends Underpin Student Demand ............................................................ 8
  Affordability Increasingly Important to Student Demand at High-Priced Private Institutions ................................................................. 8
  Track Record and Management Outreach Show Depth of Market ......................... 9
  Financial Aid is an Important Means to Compete for Students .................................. 9
  Strong Research Program Enhances Competitive Position ........................................ 10

II. Financial Position .......................................................................................................... 10

  Level Of Financial Resources Varies Widely Across Sector .......................................... 10
  Liquidity Is Especially Important For Credits With Tightly-Balanced Financial Operations ........................................................................................................... 11
  Real Estate as a Financial Asset ....................................................................................... 12
  Fundraising Is Integral to Financial Growth .................................................................. 12
  Analysis of Investment Management Focuses on Long-Term Results ......................... 13
  Spending Of Investment Earnings Varies and Affects Resource Growth ..................... 13

III. Operating Performance ................................................................................................. 14

  Medium-term Results Provide Better Measure of Fiscal Health .................................... 14
  Debt Service Coverage Important to Understanding Affordability of Additional Debt .................................................................................................................. 15
  Revenue Diversity Provides Stability; Concentration in Health Care a Key Potential Risk .................................................................................................. 15

IV. Debt Position And Legal Structure ............................................................................. 16

  Debt Capacity Is A Function Of Both Cash Flow And Total Resource Levels ................ 16
  Debt Structure Can Increase Risk .................................................................................. 17
  Strong Legal Structures Carry Greater Weight In Low-Investment Grade Category .......... 17
  Growing Use of Non-recourse Off-balance Sheet Financings For Student Housing .......... 17

V. Strategy And Management ............................................................................................. 18

  Long-Range Planning and a Clearly Articulated Strategy Are Important Strengths ............ 18
  Conservative Budgeting Practices And Ability To Implement Mid-Year Changes Important .................................................................................................... 18
  Board Composition And Willingness To Support The Institution Are Often Key To Credit Quality .................................................................................. 19

Appendix I: Moody’s Rating System for Private Universities ........................................ 20

Appendix II: Moody’s Private College And University Ratio Definitions ....................... 22
The Credit Rating Process

The rating process typically begins with a request for a rating by the institution, its financial advisor, or its underwriter. For institutions that are contemplating issuing rated debt for the first time, Moody’s offers three basic levels of rating service: Estimated Ratings, Preliminary Indicators, and Public Ratings. Moody’s also has a Strategic Financial Assessment service that offers a confidential, independent assessment of an institution’s financial strength.

An Estimated Rating provides institutions with quick feedback regarding an expected rating range and potential factors of credit focus. Typically, the lead analyst assigned to the credit reviews one to three years of audited financial statements, three to five years of enrollment and student demand data, and any other readily available information regarding the school’s mission, strategic plan, etc. At this point in the rating process, the lead analyst typically does not have extensive contact with management, although some clarification of unusual factors may be helpful. Estimated ratings often assist the institution and its financial advisor in determining how to proceed with the financing. They can be used to make an informed decision between issuing the debt on an unenhanced basis relying only on the credit of the institution, or using credit support such as municipal bond insurance or a bank letter of credit.

A Preliminary Indicator rating provides a precise indication of a rating level based on a full review of financial and student demand information, conversations with management (either in face-to-face meetings or over the telephone), and a review of draft legal documents. Preliminary Indicators are confidential, and Moody’s feedback is shared only with the institution and its investment banker or financial advisor.

A Public Rating reflects full dissemination of Moody’s rating, including a report detailing key credit factors supporting the rating. It can be public on an unenhanced basis, without credit enhancement from municipal bond insurance or a bank letter of credit. Alternatively, it can be published as an underlying rating in conjunction with either form of credit support, reflecting to potential bondholders the institution’s credit quality exclusive of the credit support.

The rating is usually delivered via electronic vendor services such as Bloomberg, and is also available on Moody’s website, www.moodys.com and other subscription-based services. If there is significant market interest, Moody’s may issue a press release on the assignment of the rating. We also respond to questions by potential investors who are subscribers to Moody’s services, including most major participants in the public finance market.

Meaning of a Moody’s Rating

A Moody’s credit rating is an independent opinion about the future ability and willingness, as well as legal obligation, of an issuer of debt to make full and timely payments of principal and interest on a debt security. If an institution does not have any outstanding public debt, Moody’s will assign an issuer rating, which reflects the institution’s broad credit strength and is akin to an unsecured general obligation rating.

Moody’s rating scale represents a consistent framework for ranking and comparing the relative risks of many debt issues, including the debt of colleges and universities. It typically includes a rating outlook of stable, positive, negative, or developing, indicating the likelihood of a change in the rating over the medium term of eighteen to thirty-six months.

Once a rating has become public, we generally maintain the currency and accuracy of the rating for the life of the bonds, because debt securities can be traded on the secondary market. We request financial statements and other supplemental information from the institution on an annual basis. The rating may be updated after review of this information or upon occurrence of a material event affecting the institution to reflect positive or negative changes in credit quality. (For more information please see "Frequent Credit Reviews Help Maintain Timeliness of Moody's Higher Education and Not-For-Profit Organization Ratings", published March 2001).

A Strategic Financial Assessment is a private report or in-person presentation to senior management or board members that provides valuable feedback that can be used in formulating an institution’s strategic or capital plan. It includes an analysis of our five rating factors, as well as a benchmarking report of financial and market ratios against peer and competitor institutions and an overview of broad industry and market trends.
factors potentially impacting the institution. A board or administration member of an institution typically contacts Moody’s to initiate a Strategic Financial Assessment. The analytical process involved is similar to that of a private indicator, except that no specific rating level is assigned.

Moody's Rates Bonds by Committee to Ensure Accuracy and Integrity

Moody’s rating decisions are made by a committee comprised of the most experienced members of our higher education team. When appropriate, the committee also includes representatives from other analytical areas at Moody’s such as healthcare, housing, or government ratings. In preparation for committee, the lead analyst assigned to the institution prepares a thorough report that includes financial and market ratios, median and comparable ratios for like institutions, and a synopsis of the legal structure. This report forms the bedrock of the committee’s rating decision, as we believe track record is an important measure by which to benchmark performance.

Beyond the historical quantitative analyses, committee also considers various qualitative issues, especially with regard to market position and fundraising. This discussion often focuses on institutional strategy and other aspects of the competitive landscape for private institutions that are more difficult to quantify, but remain vital to assessing credit quality.

Moody’s Ratings Cover the Large Majority of Debt Issued by Private U.S. Colleges and Universities

Moody’s maintains public ratings on 255 private colleges and universities. We have private, estimated or enhanced credit ratings on well over 100 additional institutions. Because we rate nearly all large private universities (those with more than $100 million in annual revenue), which issue the bulk of debt, our ratings cover more than 75% of the debt outstanding among U.S. private colleges and universities.

Overall credit quality for the publicly rated private colleges and universities is strong, with a simple average rating of A3 (Chart 1). This rises to Aa3 when weighted by amount of debt outstanding. Moody’s also rates 220 public university institutions and systems, with an average rating of A2. Private university ratings are more evenly distributed across rating categories, whereas public university ratings are heavily concentrated in the A and Aa rating categories. For more information on our outlook for the private higher education sector, please refer to our annual outlook and medians for private higher education, published in the late spring of each year.
Key Credit Factors

I. MARKET POSITION

Quality, Location, and Size All Influence Credit Strength

Moody’s review of an institution’s market and competitive position is typically the most extensive part of our analysis, because we believe it is a key driver of long-run financial health. Strong student demand generally translates into favorable net tuition revenue and enrollment stability, and in the longer run, into fundraising success.

As a whole, the higher education market is relatively fragmented, not only by geography but also by market niche. Across the country there are small residential colleges, mid-sized commuter universities, and very large research universities. There are also those that focus on a specialty niche, such as religiously affiliated schools, single-sex schools, historically black colleges and universities, adult education schools, art schools or professional schools. More recently, there has been growth in non-traditional distance learning programs, which use internet-based programs to provide virtual classes. However, while most schools have implemented some degree of online course delivery, there are few schools specializing in online education and distance learning.

Given the diversity of the sector, we begin each analysis by seeking to understand an institution’s mission and its target student market. This includes the campus location, the size of the enrollment base, the variety of program and degree offerings, and the types of on-campus facilities. In general, we believe an urban setting, near both amenities and strong transportation networks, is advantageous, yet we also recognize that a less centrally located, but attractive campus can also enhance student demand and faculty recruitment. For these institutions, however, on-campus student housing and recreational facilities are more important in attracting students.

Moody’s also considers an institution’s program mix and enrollment size. Typically, a larger institution with a more diversified mix of academic offerings is less likely to suffer a severe decline in market position than a smaller, more specialized institution. A larger institution is usually less vulnerable to major event risk such as adverse publicity from a scandal or an unfavorable legal judgement. However, a strong student draw and a reputation for high quality programs can provide enrollment stability at even the smallest of institutions; indeed, we have assigned Aaa ratings to institutions with as few as 1,300 students. Furthermore, a large institution with a broad array of less competitive programs can face significant market pressure, leading to a relatively low rating despite its size. Perhaps most important is the institution’s success in actively managing its mix of program offerings, reacting to market factors to assure a consistent stream of tuition revenue despite shifts in student demand for particular majors or programs.

Moody's Rating Methodology
Colleges that focus on a specialty niche can be more vulnerable to enrollment swings given the limited nature of their applicant pool. In the absence of strong demand or other mitigating credit strengths, we believe these institutions are exposed to more business risk due to their market concentration.

We also gain an understanding of the geographic range of the institution’s student market. Some institutions draw students almost entirely from their surrounding local area, while others serve a greater regional or national market. Generally speaking, a more geographically diversified student market is a credit strength, in that it makes the institution less vulnerable to economic or demographic declines in a narrow service area. However, schools that compete on the national level are likely to face more formidable competition from other national providers.

**Demographic Trends Underpin Student Demand**

Based on a comprehensive understanding of the institution and its target market, we then analyze the demographic trends and participation rates driving student demand for higher education. Unlike the public sector, where high demand growth can overwhelm capacity due to state mandates to provide accessibility to eligible students, increased demand for private institutions is virtually always favorable even if the institution is already at its target capacity. Faced with a booming market, managers of a private institution can choose either to grow enrollment to meet demand or to turn more students away, thereby improving selectivity and typically improving student quality and net tuition revenue as well.

Growth in the number of high school graduates - the industry’s primary consumers - has increased dramatically over the last few years after a long period of stagnation in the 1980’s and early 1990’s. This surge is due to the children of the Baby Boomers, commonly called the Echo Boomers. While these trends bode well for the industry as a whole, demographic growth is not projected to be uniform across the country. Some areas in the West and Southeast will experience strong growth, while other areas in the Midwest may contract going forward (see Table 2). These demographic trends, combined with the changing socio-economic profile of new students, with a larger proportion drawn from first-generation or lower income families, can have significant implications for student demand and pricing flexibility.

Moody’s also expects continued growth in participation in higher education, both among traditional age and older students, reflecting the economic value provided by a college degree. (For more information, please see Moody’s report "Booming Demographics Fuel Higher Education Demand: Private University Affordability Remains A Major Concern", released September 2001).

**Affordability Increasingly Important to Student Demand at High-Priced Private Institutions**

In assessing student demand, Moody’s also seeks to understand local and national economic trends and the impact on wealth levels in an institution’s market area. Conventional wisdom dictates that college enrollment is counter-cyclical because students tend to enroll in greater numbers when the economy is weak and their earnings potential is lower. Conversely, a strong economy should be accompanied by lower participation rates. However, this trend predominates in professional graduate programs such as law or medicine, or with occupation-oriented undergraduate education such as that offered by community colleges.

We believe this counter-cyclical effect is largely absent from the core undergraduate residential programs offered by most of the private colleges and universities rated by Moody’s. For the traditional age student considering paying for the premium product of a four-year residential experience at a private college or university, we believe that family income and wealth are the key determinants of demand. As unemployment rises, or as family nest eggs deteriorate with the stock market, we expect more families and students will choose a lower-priced public education. This is especially true in the Northeast and Midatlantic where most public universities have substantially upgraded their marketing and residential services over the past

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>% Chg</td>
</tr>
<tr>
<td>Nevada</td>
<td>61%</td>
</tr>
<tr>
<td>Arizona</td>
<td>25%</td>
</tr>
<tr>
<td>Georgia</td>
<td>18%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>18%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>14%</td>
</tr>
<tr>
<td>California</td>
<td>13%</td>
</tr>
<tr>
<td>Florida</td>
<td>12%</td>
</tr>
<tr>
<td>Washington</td>
<td>11%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Western Interstate Commission for Higher Education
decade. For the most selective private institutions this demand shift to the affordable public sector is only a minor risk due to their deep applicant pools which have been relatively insensitive to past economic cycles. For less selective private colleges and universities, however, a stock market or economic downturn may actually lead to a decrease in enrollment and net tuition revenues, despite growing numbers of student graduating from the nation’s high schools.

**Track Record and Management Outreach Show Depth of Market**

In assessing a college or university’s competitive position, Moody’s focuses on an institution’s selectivity (admit rate), yield (matriculation rate), and cross-admission results (see Table 3). We believe these ratios provide an important picture regarding the depth of student demand relative to the enrollment base, as well as an indication of whether the institution is the first choice of those accepted. We review not only the undergraduate program, but also each significant graduate and professional program separately.

In addition to quantitative analysis, Moody’s evaluates management’s strategic outreach efforts, particularly with regard to marketing initiatives such as early admittance programs, housing guarantee and referral programs, and alumni networking programs. We believe management expertise is critical in these areas, as strong outreach can have a dramatic impact on demand.

We also assess the attractiveness of an institution’s facilities and the degree of student access to amenities such as food services and retail shopping either on or near campus. Typically this is done through a site visit, with a tour of campus and the surrounding area. Further, for a residential institution the lead analyst will assess the attractiveness of student housing facilities. Residential facilities with state-of-the art technology, apartment-style living arrangements and other amenities are typically more desirable to students.

### Table 3: Key Metrics to Evaluate Student Demand

<table>
<thead>
<tr>
<th>Operational/Financial Metric</th>
<th>Definition</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selectivity Ratio (%)</td>
<td>Number of acceptances / Number of of applications</td>
<td>Measures initial student demand, Below the median is favorable</td>
</tr>
<tr>
<td>Matriculation Ratio (%)</td>
<td>Number of admissions / Number of acceptances</td>
<td>Measures final student demand, Above the median is favorable</td>
</tr>
<tr>
<td>Net Tuition per student ($)</td>
<td>Gross tuition revenue - scholarship &amp; fellowship expense / Full-Time Equivalent (FTE) students</td>
<td>Measures average tuition received per student, Above the median is favorable</td>
</tr>
<tr>
<td>Cross Admission Statistics (%)</td>
<td>Ranking by number of common applications with each competitor and win/loss record as % of applications</td>
<td>Measures track record with closest competitors by applications, No median</td>
</tr>
<tr>
<td>Institutional Tuition Discount (%)</td>
<td>Un-sponsored scholarships &amp; fellowships / Gross tuition &amp; fee revenue</td>
<td>Measures the amount of scholarships and fellowships funded by unrestricted institutional resources, Below the Median is favorable</td>
</tr>
<tr>
<td>Total Tuition Discount (%)</td>
<td>Total scholarships &amp; fellowships / Gross tuition &amp; fee revenue</td>
<td>Measures total scholarships and fellowships funded by unrestricted resources, endowment, and external sources, Below the Median is favorable</td>
</tr>
</tbody>
</table>

**Financial Aid is an Important Means to Compete for Students**

In order to obtain a complete picture of a college or university’s true pricing power, Moody’s focuses primarily on net tuition (see Table 3) rather than gross tuition trends. We believe gross tuition metrics can fail to capture competitive pressures that lead institutions to rely on scholarships and fellowships to attract students, essentially discounting gross tuition pricing.

Colleges and universities have an uncommon ability, albeit to a varying degree, to select their customers one at a time and offer pricing discounts through financial aid. Essentially, institutions can raise tuition rates while price discriminating on the margin with scholarship awards for preferred students. We therefore review tuition rates and how they compare to key competitors in the context of the institution’s financial aid strategy.
Moody’s uses several ratios to assess a college or university’s use of discounting: scholarships and fellowships as a percent of tuition revenue, net tuition revenue, and net tuition revenue per student. The most important of these is net tuition per student, which shows the amount of revenue on a per-unit basis. We use net tuition revenue trends to understand the impact of discounting on the bottom line. We believe a sustained period of declining net tuition indicates severe competitive pressure and credit stress, as it typically means that an institution is forced to offer progressively deeper discounts in order to stabilize its student demand. This is especially a concern if net tuition revenue per student is already lower than those of competitors operating in a similar market, and is still declining. If net tuition revenues are declining modestly, but other market indicators are strong, we are usually not as concerned about the competitive risks.

Typically scholarship awards are used to compete for the highest academic quality students, and to provide relief to students whose parents cannot afford, or are unwilling to pay, the undiscounted tuition. A few highly selective institutions operate under the principle of “need-blind” admissions, where financial aid is awarded solely on the basis of the family’s ability to pay. Typically these institutions have large endowments to support their tuition discounts. In these cases, we believe high discount rates are of less concern if they are offset by strong operating margins and more selective admissions.

**Strong Research Program Enhances Competitive Position**

Moody’s believes a high quality research program will enhance an institution’s competitive position, especially with regard to faculty recruitment and graduate education. It can also favorably impact the undergraduate program to the extent that the research raises the institution’s overall reputation and that highly recognized faculty members are available to teach undergraduate classes and sponsor undergraduate research projects.

In order to analyze the scope and quality of the research program, we review the type of research conducted, number and diversity of funding sources, trends of indirect recovery rates, and number of faculty awards. We view both program size and diversity as positive credit factors that help the institution garner additional federal research dollars and insulate programs from the effects of potential cutbacks in some areas of federal funding.

**II. FINANCIAL POSITION**

**Level of Financial Resources Varies Widely Across Sector**

Moody’s believes the size of an institution’s financial resource base is key to credit quality, as this is the cushion that allows institutions to weather potential periods of economic or enrollment stagnation. It also provides an important stream of income earnings that supports programs, capital, and research. In analyzing an institution’s financial position, we look both at the resources currently available as well as the potential for additional growth through retained earnings, gift support, and prudent endowment management practices.

The higher education market is bifurcated, with a relatively small percentage of private colleges and universities holding the bulk of the wealth in the sector. These institutions tend to be more established organizations with national reputations and a strong track record of philanthropic support. The vast bulk of the nation’s 1,600 not-for-profit four-year institutions, however, have much more limited financial cushions, and therefore are more reliant on achieving annual fiscal balance to maintain financial viability.

Moody’s uses ratio analysis to compare an institution’s financial resources to its expense base and amount of debt. Three main types of ratios underpin our analysis: financial resources to operations, financial resources to debt and financial resources per student (see Table 4). There are no target levels necessary to achieve a given rating level. Sometimes an institution’s ratios can differ significantly from the medians for its rating level if it has other offsetting credit strengths or weaknesses.
In order to measure growth of resources, Moody's calculates return on net assets and return on financial resources (see Table 5). These help to quantify the magnitude of changes in financial resources over time and reflect management’s strategy toward investing in the campus versus growing reserves. Return on net assets includes changes in all net assets, including net investment in plant, while return on financial resources excludes changes in plant equity.

Typically, most institutions that achieve positive annual operations invest a portion of their surpluses into renewal and replacement of their facilities, and reinvest the remainder in medium to longer-term reserves. There are some institutions that choose to invest more funds into capital needs, and retain less in reserves. These universities are less likely to have deferred maintenance problems, and often may have lower debt levels since smaller capital projects are financed on a pay-as-you-go basis. Other institutions may decide to retain larger portions of their surpluses as reserves, and finance more of their capital needs through debt. Moody’s views each of these strategies as having benefits as well as costs, and tries to understand each individual institution’s management philosophy and the potential impact on the college’s risk profile.

Liquidity is Especially Important for Credits with Tightly-Balanced Financial Operations

Moody’s analysis of an institution’s financial resources is based on three levels of liquidity: immediately available for any use (unrestricted resources), unrestricted resources plus those available over a medium-term time frame (expendable resources), and expendable resources plus the permanently restricted endowment corpus (total resources). In the vast bulk of cases, Moody’s completely excludes the institution’s own equity in its property, plant, and equipment from these financial resource calculations.
We do not require an absolute level of liquidity to achieve any given rating category, although we typically look for higher levels of unrestricted assets for institutions that are highly tuition dependent and have tight financial operations or volatile student demand. The only exception is if a college or university has issued variable rate demand obligations (VRDO) that are secured by its own internal liquidity. In order to receive our highest short-term VMIG 1 rating on internally secured variable rate debt, institutions typically have to demonstrate at least 1.2 times coverage from highly rated and very liquid (same day settlement) securities or other liquidity sources. For more information on our criteria for self-liquidity ratings, please refer to our recent publication on this topic.

**Real Estate as a Financial Asset**

Historically, Moody’s has excluded an institution’s net investment in plant from its financial resource base, despite the fact that it is included in unrestricted net assets in audited financial statements. Our rationale is based on several factors including that a college is a going concern and assets would only be available upon bankruptcy, the liquidation value of classrooms and research buildings is uncertain, and length of time to sell is typically quite long.

In certain instances, however, we may include a highly marketable and separable portion of the campus in financial resources. Given that real estate is relatively illiquid, and that with any sale there is potential for delays, we will not incorporate the value in unrestricted resources, but only in either expendable or total resource categories. For similar reasons, we may also view a mortgage pledge on real property as a meaningful enhancement to credit strength, although this is generally only significant for low-investment grade institutions that own real estate that would have a relatively high marketability in case of a bankruptcy. (See Campus Real Estate: A Financial Asset?, published February 2002).

<table>
<thead>
<tr>
<th>Factors Leading to Moody’s Including Campus Real Estate as a Financial Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Campus is located in a thriving real estate market</td>
</tr>
<tr>
<td>- Property is not located on the core campus; buildings are interspersed with other commercial and/or residential properties</td>
</tr>
<tr>
<td>- Property has alternate non-educational use (office buildings or apartments)</td>
</tr>
<tr>
<td>- Time-frame to sell is estimated to be within two years</td>
</tr>
<tr>
<td>- Property must have separate and independent utilities from rest of campus</td>
</tr>
<tr>
<td>- There is a reliable methodology for estimating property value (specific appraisal or comparable cost per square foot)</td>
</tr>
</tbody>
</table>

**Fundraising is Integral to Financial Growth**

Fundraising in the higher education sector is a vital driver of long-term financial health. Some institutions have been in the fundraising “business” for over a century and have developed strong ties to alumni and other high wealth individuals. These relationships can continue to provide a steady stream of philanthropic revenue, even during periods of economic volatility.

Other institutions have only recently invested in a development staff and started to garner meaningful philanthropic support. While occasionally a newly minted development team can begin with a dramatic initial gift, we believe that it usually takes many years to develop the donor relationships necessary to provide a consistent revenue base.

To determine the strength of an institution’s fundraising program, we look at the strategy of the development team and its track record during previous capital campaigns. We also analyze the depth of the donor base, composition of the board, and key competitors for philanthropic dollars. We look for diversity among donors and a national, rather than regional outreach draw. We discuss the status of the current campaign with management, and whether it plans to use campaign dollars for operations, endowment or capital projects. When a college’s financial plans are predicated on an upcoming fundraising campaign, we assess the plan’s potential for success based on management’s track record and the strength of the target donor pool. We then may incorporate these plans into our analysis for future resource growth and leverage levels.
Analysis of Investment Management Focuses on Long-Term Results

In addition to looking at an institution’s resource levels and means of accumulating resources, Moody’s analyzes a college’s investment management and strategy. In our opinion, there is no ideal asset allocation strategy. We believe the asset allocation must reflect the size of the institution’s investment pool, investment time-horizon and management expertise.

Typically, the bulk of an institution’s cash and investments are managed as an endowment. These funds include donor-restricted endowment corpus that can never be spent, accumulated investment gains on this corpus, and unrestricted funds that management has designated for long-term investment, also known as quasi-endowment. Most institutions invest their endowments with a goal of retaining the portfolio’s purchasing power in perpetuity. They spend only a fraction of the earnings from the endowment on current programs, and reinvest the balance. Accordingly, management typically invests the bulk of its holdings for the long-term, making asset allocation and security selection decisions based on market fundamentals, rather than on short-term swings in security prices. We therefore place a greater emphasis in our ratings on understanding the drivers of long-term endowment growth, rather than on short-term fluctuations in investment returns. We also evaluate the strength of management, particularly with regard to choosing and monitoring fund managers, monitoring and marking-to-market illiquid or non-transparent assets, and rebalancing the portfolio as a whole.

Over the long-term, we believe that diversification both in asset classes and in fund managers is favorable for stability and growth. All else being equal, institutions whose endowments are concentrated in a single security, or a single asset class, have greater credit risk. Asset class diversification can include non-traditional alternative investments such as venture capital, hedge funds, and other types of international, real estate or distressed opportunity funds. These assets are typically not highly correlated with public debt and equity markets and can provide healthy returns. However, we believe these types of investments can be both volatile and illiquid, and are difficult to mark-to-market. Also, access to high quality asset managers is often limited to larger, more sophisticated investors. Therefore, we are generally comfortable with a fairly high allocation to alternative asset classes for larger endowments, but we believe that a high concentration in these securities can add risk for smaller endowments.

When reviewing investment performance, Moody’s analysts generally review endowment returns over 5 to 10 year periods. We benchmark an institution’s investment track record against other institutions with portfolios of similar size. Over the long run, consistent over- or under-performance relative to peers can affect an institution’s credit rating. (Please see our special comment entitled “Near Term Investment Volatility is Unlikely To Affect Higher Education Credit Quality”, published March 2001.)

Spending of Investment Earnings Varies and Affects Resource Growth

The amount that an institution chooses to spend from its endowment each year also can have a significant long-term impact on its future financial base. Clearly, the more a college spends out of its earnings today, the more slowly the endowment will grow.

Moody’s recognizes that different endowment spending rates make sense for different institutions. However, for the purposes of calculating an operating margin that is consistent from institution to institution, Moody’s includes endowment and investment income equal to 4.5% of the previous year’s market value of cash and investments. This spending rate is roughly equivalent to the industry average endowment spending rate for financially stable institutions, which is 3% of a three-year average of cash and investments at market value. We make this adjustment so that we can compare the bottom-line operating margins of institutions with different spending rates. Otherwise, an institution with an 8% spending rate may appear to have balanced operations, whereas one with a 4% spending rate may appear to have a deficit, while the true normalized operating performance of the two schools was actually the same.

If a college or university has a spending rate that is significantly higher than this industry average, Moody’s seeks to understand whether the higher spending rate is a temporary effort to make special investments in facilities and academic programs, or if it reflects permanent budget pressure to fund ongoing expenditures such as salaries. We have less concern if the high spending rate is planned for one-time capital or program investments. However, if high endowment spending is necessary to balance the operating budget, Moody’s rating outcome will likely reflect our concern that the college may experience a gradual relative decline in financial and competitive position when compared to peer institutions with lower spending rates and more rapidly growing endowments.
III. OPERATING PERFORMANCE

Medium-term Results Provide Better Measure of Fiscal Health

Moody's analysis of operating performance focuses on medium-term trends, which we believe provide a more accurate picture of fiscal health than a single year's results. The ability to manage to at least a balanced bottom-line is important for the long-run financial health of all private colleges or universities, but is critical for institutions that do not have significant financial reserves. Recognizing that many institutions experience variable operating performance from year to year due to the inherent nature of gift support and certain expenditures, our analysis uses a three-year moving average for most operating ratios. While an operating deficit in a single year may not be a concern, two or more years of weak financial performance usually signal factors that may be affecting fundamental financial equilibrium.

Many colleges and universities place great internal emphasis on balancing the operating budget according to a set of internal budgetary accounting conventions. Because these conventions differ from institution to institution, for example in areas such as inclusion of certain gift and investment income, operating budgets are generally not comparable. Internal budgets often exclude depreciation, which Moody's believes should be reflected in annual operating results. Therefore, our practice is to focus our analysis of operating results primarily on the Statement of Activities as presented in the audited financial statements of the organization. We do, however, analyze budgeting practices and results as a tool to evaluate management’s fiscal processes and use of financial controls.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Moody's Adjusted Unrestricted Income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue Computation</strong></td>
<td><strong>Expense Computation</strong></td>
</tr>
<tr>
<td>Gross Tuition and Fees</td>
<td>Instruction Expense</td>
</tr>
<tr>
<td>- Unsponsored scholarships</td>
<td>+ Research</td>
</tr>
<tr>
<td>- Sponsored scholarships</td>
<td>+ Public service</td>
</tr>
<tr>
<td><strong>Net Tuition and Fees</strong></td>
<td>+ Academic support</td>
</tr>
<tr>
<td>+ 4.5% * Prior Yr cash and Investments</td>
<td>+ Student services</td>
</tr>
<tr>
<td>- Investment Income</td>
<td>+ Plant maintenance and operations</td>
</tr>
<tr>
<td>- Unrealized Gains and Losses</td>
<td>+ Administration and institutional support</td>
</tr>
<tr>
<td>+ Gifts for Operations</td>
<td>+ Auxiliary enterprises</td>
</tr>
<tr>
<td>+ Auxiliary Revenues</td>
<td>+ Patient care</td>
</tr>
<tr>
<td>+ Grants and Contracts</td>
<td>+ Other expenditures</td>
</tr>
<tr>
<td>+ Patient Care Revenues</td>
<td>- Scholarships and Fellowships</td>
</tr>
<tr>
<td><strong>Net Assets Released</strong></td>
<td>= Total Adjusted Unrestricted Expenses</td>
</tr>
<tr>
<td>- Investment earnings released</td>
<td>Total Adjusted Unrestricted Revenues</td>
</tr>
<tr>
<td>- Gifts for Capital</td>
<td>- Total Adjusted Unrestricted Expenses</td>
</tr>
<tr>
<td>= Adjusted Net Assets released</td>
<td>= Total Adjusted Unrestricted Income</td>
</tr>
</tbody>
</table>

Moody's views fundraising as a core operating function of most colleges or universities and understands that without philanthropic support the majority of institutions would run at a loss. However, the flow of gifts to an institution can be highly variable, depending on whether a college is in the midst of a fundraising campaign or whether it has received unusually large gifts or bequests. To measure an institution’s reliance on gifts to balance operations, Moody’s calculates an operating margin without gifts. This enables an analyst to see core trends in operating performance without gift flow variability. In addition, it highlights those institutions that are most reliant on gifts to fund annual expenses, leading analysts to focus more heavily on the strength and consistency of an institution’s development program.
Debt Service Coverage Important to Understanding Affordability of Additional Debt

To measure the impact of leverage on operating performance, Moody’s compares the level of annual and peak debt service to operating expenses. For the average institution, debt service consumes between four and eight percent of operations. Typically, Moody’s views an institution whose debt service is more than 10% of operations as highly leveraged and may have a concern about its ability to repay debt during less financially robust periods. A significant unrestricted financial reserve base or a long record of consistently strong annual operating performance may help mitigate our concerns.

In addition, we calculate annual debt service coverage and average annual debt service coverage. These ratios point to a college’s capacity to successfully repay debt from fiscal operations. Annual debt service coverage measures current operating income available to pay debt service on outstanding debt. Average maximum debt service coverage indicates to what extent peak pro forma debt service may put a strain on operations. If maximum debt service coverage is less than one time, Moody’s seeks to understand how the college or university intends to repay bondholders when future payments come due, either by improved operating performance or by judicious use of financial reserves. In the case of scheduled balloon payments, Moody’s assesses the institution’s likely continued access to capital to refinance the debt.

Revenue Diversity Provides Stability; Concentration in Health Care a Key Potential Risk

Moody’s believes that institutions with more revenue diversity are often financially stronger because of the stability multiple revenue sources provide. Moody’s analyzes each revenue stream (tuition and fees, auxiliary enterprise charges, grants and contracts, private gifts, endowment income, patient care, and other) individually to determine an institution’s reliance on any particular source of income and to note trends in income flow. If a concentration is present, we seek to understand management’s fiscal plan and overall financial flexibility to absorb a sustained decline in any given source.

While it is often difficult to do, Moody’s seeks to understand the extent to which each academic market segment is able to stand on its own. Moody’s may view heavy cross-subsidization of programs as a credit weakness, especially with respect to more volatile enterprises such as continuing education programs or
medical school clinical care operations. If a higher risk business unit sees its margins decrease, it can lead to a deficit for the entire organization.

Over the last few years, the risk profile of health care providers has risen dramatically. Historically, clinical care operations contributed positively to credit quality by generating surpluses and diversifying revenues, as well as playing a vital role at most medical schools. Today, however, many high cost academic medical centers are struggling to maintain financial stability due to high competitive pressures, rising costs for medical supplies, a nursing shortage, reductions in third party reimbursements, and reduced federal payments. (For more information, please see our special comment, “Non-for-profit Healthcare Sector: Industry Outlook 2002”, published January 2002.)

When reviewing universities with a significant exposure to clinical care through ownership of a hospital, faculty practice plan, or health maintenance organization, the higher education lead analyst will draw upon the expertise of Moody’s specialized health care analysts. Each review is done on a case-by-case basis. We analyze the financial stability of the health care operations, the flow of funds between the operations and the University, and the importance of these operations to the prestige of the medical school. We place a heavy emphasis on the degree to which the University plans to subsidize clinical care operations.

Several universities have attempted to reduce their exposure to the risks of clinical care operations and owning a hospital in a number of ways. These initiatives include renegotiating contracts, restructuring hospital administration, privatizing hospital management, downsizing hospital operations, or divesting the hospital altogether. Moody’s believes these changes can legally insulate the university from its obligation to the hospital. However, we believe the overall financial risks of the hospital persist unless university management is willing to manage the hospital as a self-supporting entity, regardless of the impact on the medical school. In our opinion, allowing a hospital’s quality, service, and reputation to decline significantly could potentially be very damaging to a high-quality academic medical center. Our analysts therefore review the university’s management policy regarding subsidizing its hospital or other clinical care operations in the context of underlying economic incentives. In only a few cases, we believe university management will likely not support its hospital or other clinical care operations and have excluded it from all university financial ratios.

IV. DEBT POSITION AND LEGAL STRUCTURE

Debt Capacity is a Function of Both Cash Flow and Total Resource Levels

Although many colleges and universities measure their ability to absorb new debt by focusing primarily on incremental cash flow available to support debt service, Moody’s view of debt position includes a balance sheet focus as well as an income statement analysis. Strong cash flow and good debt service coverage is usually sufficient to garner an investment grade rating; however, more highly rated institutions provide additional bondholder security through reserve levels which would cushion debt service payments through an extended period of operating stress. In the Aa and Aaa rating categories, it is primarily the relative level of these reserves, combined with an analysis of student market position, which leads to rating distinctions.

We use several ratios to analyze debt capacity. Two of the most important balance sheet measures are expendable resources to debt and total resources to debt (see Table 4). We focus on the expendable resources to debt ratio, because expendable resources are the funds that will be available (albeit over time) to pay debt service. However, we also take total resources into account even though this measure includes a college’s permanently restricted endowment corpus. While this corpus is not available to directly pay debt service, endowment income from permanently restricted funds, depending on restrictions, can substitute for unrestricted revenue to help finance operations.

In addition to these debt ratios, Moody’s analyzes qualitative aspects of increased leverage. Moody’s will request an institution’s three to five year capital plan, recognizing that it is difficult to accurately identify projects to be undertaken more than five years in the future. Moody’s also attempts to determine the attractiveness and breadth of an institution’s facilities relative to key competitors in order to determine whether additional capital investment beyond that already identified may be necessary.

Debt-financed facilities that improve a college or university’s ability to attract students, research dollars, or patients (for those universities which have medical centers), are likely to result in an improved market position and therefore expanded debt capacity. As a result, if Moody’s believes that an institution’s strategic position will be significantly enhanced by debt-financed projects and that it will comfortably be able to service the new debt, it is rare for additional debt issuance-in and of itself to result in a rating downgrade.
Debt Structure Can Increase Risk

In addition to the overall level of indebtedness, Moody’s analysis also focuses on the structure of an institution’s debt profile, including the mix of variable and fixed rate debt and whether debt service is level, accelerated or deferred. When an institution has a high portion of debt in a variable rate mode or structured with bullet maturities, Moody’s seeks to understand a college’s strategy in using a particular debt structure and its methods of appropriately hedging risk if necessary. Similarly, Moody’s recognizes that derivative products such as interest rate swaps can be useful tools in managing risk. We review the use of such products to ascertain whether there is a valid economic rationale behind them, beyond pure interest rate speculation, and whether appropriate safeguards are in place to protect the institution from counter-party and other risks.

Moody’s does not have any specific benchmarks for variable versus fixed rate debt, or for how debt should amortize. Each situation is analyzed on a case-by-case basis. However, in Moody’s opinion, colleges with stronger credit profiles typically have more flexibility to use debt structures that are different than the traditional fixed-rate, level debt-service structure, without adversely affecting the rating on their long-term debt. These include unenhanced variable rate demand obligations and commercial paper where the institution provides its own short-term liquidity.

Factors Moody's Considers when Assessing Risks of Variable Rate Debt and Impact on the Long-term Bond Rating

- Amount of variable rate debt
- Conservatism regarding budgeting of debt service costs and use of a bond reserve fund
- Use of swaps or other synthetic means to hedge interest rate risk
- Investment of other short-term assets which hedge interest rate risk
- Liquid assets coverage of amount of variable rate debt
- Strength of liquidity facility or letter of credit based on its structure, timing, and enforceability
- Structure of repayment of liquidity facility
- Counter-party risk of bank or swap provider
- Tender mode of liquidity facility
- Investment policies which include written guidelines governing liquidation procedures

Strong Legal Structures Carry Greater Weight in Low-Investment Grade Category

Moody’s believes legal provisions such as debt service reserve funds, additional borrowing tests, and liens on particular assets or revenue streams provide some additional bondholder security. However, we generally think the enhancement they provide is most meaningful in the low investment grade and speculative rating categories, where the potential need for bondholder protection is greatest. If all other rating factors point to a low investment grade or speculative grade rating, debt issues with strong legal protections can potentially achieve a slightly higher rating level. For a college rated in the A category or higher, Moody’s believes the likelihood of the need to ever call on debt service reserve funds or to look to other legal provisions is very small. Accordingly, the presence or lack of these provisions is unlikely to have any direct rating impact.

Growing Use of Non-recourse Off-balance Sheet Financings for Student Housing

Colleges and universities are increasingly looking for creative ways to finance student housing projects. A small but growing number of institutions have turned to private developers to build and operate student housing on campus, using an off-balance sheet financing vehicle. The motivations for pursuing this strategy are multi-faceted: some colleges are truly looking to privatize functions they may believe to be outside their core areas of expertise while others are trying to build housing more quickly, and at a lower cost, than they can through a traditional revenue bond financing. Some institutions turn to privatized housing as a means of preserving their core debt capacity. However, depending on how privatized student housing projects are structured and the links back to the sponsoring organization, Moody’s usually views them as a direct or indirect use of the institution’s debt capacity. In short, off-balance sheet does not necessarily mean off-credit.

If we believe that the university has strong economic and/or legal ties to the project, we will typically include a privatized financing as direct debt of the institution. If the University’s participation is weak in that it does
not benefit financially from the project and it is not on campus, we will likely view the borrowing as indirect debt. If the University has no relationship other than marketing it as off campus housing and does not receive the project at the end of borrowing, Moody’s may consider the project to be completely off-credit and not a use of debt capacity at all.

Factors Moody’s Considers When Including “Privatized” Student Housing as Debt

- Housing project is on or adjacent to campus
- University foundation or not-for-profit student housing corporation that “owns” the project is closely affiliated with the university
- University has a ground lease and garners rents from project
- University receives residual cash flow from the project
- University receives project at end of ground lease
- University takes a management role and markets the project as university housing
- University refers students to the housing in the same manner as other on campus housing
- University withholds transcripts to enforce student rental payments

Moody’s has been asked to rate a number of these private developer financed transactions. We draw on the expertise of our tax-exempt housing bond analysts in reviewing real estate risk and cashflow analysis, and our housing and higher education analysts work jointly on these ratings. While privatized student housing projects are strategically linked to the sponsoring college or university, bondholders typically only benefit from security provided by the project’s own revenues. As a result, these bonds are typically rated significantly lower than the sponsoring institution. (For more information, please see our special comment “Moody’s Sees Increase in Volume of Student Housing Financings: Varying Levels of University Involvement Result in Different Approaches”, published April 2002.)

V. STRATEGY AND MANAGEMENT

Long-Range Planning and a Clearly Articulated Strategy Are Important Strengths

One of the most critical, yet difficult to measure, credit factors is the quality of an institution’s management team. In the absence of quantifiable metrics, Moody’s looks for a coherent long-range strategic plan, clearly articulated debt and investment management policies, budgeting and monitoring practices, and a past record of successfully dealing with competitive pressures. Since Moody’s analysts generally meet with more than 150 colleges annually, we are also able to comparatively assess management’s industry knowledge and practices. In addition to evaluating a college or university’s senior administrative staff, Moody’s pays a great deal of attention to the structure and role of the governing board.

The most complete strategic plans typically tie together a review of the college’s academic program with needed operating support and capital improvements. Even with the best-designed plans, Moody’s includes a subjective assessment of management’s ability to implement targeted actions given organizational and environmental constraints.

Well-outlined policies on debt and investment management also provide confidence that management is focused on the financial condition of the institution. In Moody’s experience, while most colleges and universities have some form of investment management policy, only a small portion of institutions have undertaken a comprehensive review of their debt management policies. Some colleges appear to take a project by project approach (i.e. which project will generate sufficient cash flow to cover debt service), rather than to broadly assess appropriate leverage levels given financial resources, additional long-term capital needs, and potential future operating constraints.

Conservative Budgeting Practices and Ability to Implement Mid-Year Changes Important

Moody’s also typically evaluates an institution’s method of budgeting and ongoing monitoring of fiscal results to determine whether sufficient flexibility and controls are in place to prevent operating surprises. Many well-run colleges and universities build some type of flexibility into the budget that can be used to
cushion operations in the event of unexpected revenue shortfalls or expense increases. These may take the form of budgeting for fewer students than actually expected, limiting expected gift revenues to annual fund receipts, or building in an actual contingency reserve equal to some portion of revenues or expenses. Moody’s also focuses on the extent to which institutions budget for renewal and replacement of capital facilities and how this compares to funding levels suggested by depreciation accounting.

Controls on the budget over the course of the year can be another important sign of management’s capability. While some colleges appear to monitor expenses on a monthly and quarterly basis, interim controls are more lax at other institutions. Equally important to monitoring interim results is the ability to take remedial action in the event departments are over budget. At some institutions, senior financial management appropriately exerts administrative budgetary control; at others, department heads appear not to suffer consequences for overspending.

The relative balance between the power wielded by administration versus faculty can have credit implications. Moody’s recognizes that colleges and universities are different in many ways from for-profit corporations. However, Moody’s believes that for an institution to maintain long-run academic excellence, and to be able to attract and retain high-quality faculty members, it must maintain fiscal stability. As a result, an empowered and expert senior financial staff is critical to Moody’s overall favorable assessment of an institution’s credit quality.

**Board Composition and Willingness to Support the Institution are Often Key to Credit Quality**

Since an institution’s board is ultimately responsible for ensuring the financial health of the organization under its guidance, Moody’s analysts work to understand the expertise represented on the board and the board’s role in such areas as setting strategic direction and fundraising.

A high profile governing board is a favorable credit factor to the extent that Moody’s believes the board is committed to the institution and is willing to support the college or university financially. We begin our analysis with a review of the composition of the board and recent history of turnover. We believe stability of members over time not only provides consistent leadership, but also can be indicative of the strength of members’ loyalty to the institution, although some degree of turnover is recognized as beneficial for fundraising and fresh perspectives. We also note the number of alumni members, faculty members or other individuals with close affiliations to the institution prior to becoming a board member.

Providing final oversight of a university’s management has historically been one of the most important functions undertaken by the board. We seek to understand how the board accomplishes this fiduciary duty and will inquire as to how often it meets, what level of decision making is delegated to management, and whether best practices are institutionalized through written policies.

We believe the board’s role in fundraising is also very important to the success of an institution’s ability to meet its campaign goals. We assess its ability to raise funds on behalf of the institution, either directly through individual board members’ support or indirectly through contact with other funding sources. Key factors to understand the board’s strength in this area include the concentration of the donor base (the number and size of gifts), the geographic diversity of board members, the occupational diversity of board members, and wealth levels of individual members. We also review what portion of the gifts raised by the board are restricted and for what purpose. We believe a high level of unrestricted gifts not only increases the financial flexibility of the institution, but is indicative of confidence in management and the overall strategic mission of the institution.

Another important role of the board is the establishment of an investment policy and endowment spending rate for the institution. Often, smaller institutions supplement their internal staff by drawing on the expertise of board members who are investment professionals. While this strategy has enabled some smaller institutions to have superior investment performance, we have also seen situations where a board member steered an institution into poorly performing or unusually risky investments. In general, we prefer to see that multiple perspectives are reflected on the board’s investment committee, so that no one individual board member exercises excessive control over investments.
Moody’s ratings provide investors with a simple system of gradation by which the relative credit risk of debt instruments may be noted.

Long-Term Rating
At present, some of Moody’s Public Finance ratings use a 19-grade rating scale, as described below. Others use a 14-grade scale which uses the numerical modifier 1, but not the modifiers 2 and 3. Over time all public finance ratings will use the 19-grade rating scale.

Those bonds in the Aa, A, Baa, Ba, and B groups that Moody’s believes possess the strongest investment attributes are designated by the symbols Aa1, A1, Baa1, Ba1, and B1. The numerical modifier 2 indicates that the security is in the mid-range of its category while a 3 indicates that the bond is in the lower end of its generic category. Advance-refunded issues that are secured by escrowed funds held in cash, held in trust, or reinvested in direct, non-callable U.S. Government obligations or noncallable obligations unconditionally guaranteed by the U.S. Government are identified with a # (hatchmark) symbol, i.e., #Aaa.

Short-Term Ratings
There are three rating categories for short-term obligations that define an investment-grade situation. These are designated as Moody’s Investment Grade or MIG (best quality) through MIG 3 (adequate quality). For financings that have been identified as speculative grade, Moody’s assigns the SG rating.

MIG ratings are Moody’s commercial paper ratings. Moody’s assigns “Prime” ratings to commercial paper, ranging from P-1 at the high end to P-3 at the low end. Commercial paper issues not considered by Moody’s to fall within these investment-grade categories are rated Not Prime or NP.

In the case of variable rate demand obligations (VRDOs), a two-component rating is assigned. The first component represents an evaluation of the degree of risk associated with scheduled principal and interest payments, and the other represents an evaluation of the degree of risk associated with the demand feature of VRDOs, which is designated as VMIG. When either the long- or short-term aspect of a VRDO is not rated, that piece is designated NR, i.e., Aaa/NR or NR/VMIG 1.

Issues that are subject to a periodic reoffer and resale in the secondary market in a “Dutch auction” are assigned a long-term rating based only on Moody’s assessment of the ability and willingness of the issuer to make timely principal and interest payments. Moody’s expresses no opinion as to the ability of the holder to sell the security in a secondary market “Dutch auction.” Such issues are identified by the insertion of the words “Dutch auction” into the name of the issue.

Definitions of Long-Term Rating
Aaa
Bonds that are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as “gilt edge.” Interest payments are protected by a large or by an exceptionally stable margin, and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.

Aa
Bonds that are rated Aa are judged to be of high quality by all standards. Together with the Aaa group, they comprise what are generally known as high-grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude, or there may be other elements present that make the long-term risks appear somewhat larger than in Aaa securities.

A
Bonds that are rated A possess many favorable investment attributes and are to be considered as upper-medium-grade obligations. Factors giving security to principal and interest are considered adequate, but elements may be present that suggest a susceptibility to impairment some time in the future.

Baa
Bonds that are rated Baa are considered as medium-grade obligations, i.e., they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present, but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and, in fact, have speculative characteristics as well.

Ba
Bonds that are rated Ba are judged to have speculative elements; their future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate, and thereby not well safeguarded during both good and bad times over the future. Uncertainty of position characterizes bonds in this class.

B
Bonds that are rated B generally lack characteristics of the desirable investment. Assurance of interest and principal payments or maintenance of other terms of the contract over any long period of time may be small.

Caa
Bonds that are rated Caa are of poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.

Ca
Bonds that are rated Ca represent obligations that are speculative in a high degree. Such issues are often in default or have other marked shortcomings.

C
Bonds that are rated C are the lowest rated class of bonds, and issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing.
Definitions of Short-Term Ratings

**MIG** ratings terminate at the retirement of the obligation, while a **VMIG** rating expiration will be a function of each issue’s specific structural or credit features.

**MIG 1/VMIG 1**
This designation denotes best quality. There is strong protection by established cash flows, superior liquidity support, or demonstrated broad-based access to the market for refinancing.

**MIG 2/VMIG 2**
This designation denotes high quality. Margins of protection are ample although not so large as in the preceding group.

**MIG 3/VMIG 3**
This designation denotes favorable quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well established.

**SG**
This designation denotes speculative quality. Debt instruments in this category may lack margins of protection.
## Appendix II: Moody's Private College and University Ratio Definitions

### Market Demand:

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selectivity (%)</strong></td>
<td>Measures student demand by the most liquid financial resources</td>
</tr>
<tr>
<td><strong>Matriculation (%)</strong></td>
<td>Measures student demand by the most liquid financial resources</td>
</tr>
<tr>
<td><strong>Net tuition per student ($)</strong></td>
<td>Measures average tuition and fees actually received per student</td>
</tr>
<tr>
<td><strong>Educational expenses per student ($)</strong></td>
<td>Measures average educational expenses incurred per student</td>
</tr>
<tr>
<td><strong>Total gifts per student ($)</strong></td>
<td>Compares gift revenues to the size of the student body</td>
</tr>
<tr>
<td><strong>Institutional tuition discount (%)</strong></td>
<td>Measures the amount of tuition revenue funded by unrestricted institutional resources</td>
</tr>
<tr>
<td><strong>Total tuition discount (%)</strong></td>
<td>Measures the amount of tuition revenue funded by unrestricted institutional resources as well as</td>
</tr>
<tr>
<td></td>
<td>restricted endowments and external sources</td>
</tr>
</tbody>
</table>

### Capital:

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unrestricted financial resources-to-direct debt (x)</strong></td>
<td>Measures coverage of direct debt by the most liquid financial resources</td>
</tr>
<tr>
<td><strong>Expendable financial resources-to-direct debt (x)</strong></td>
<td>Measures coverage of direct debt by financial resources that are expendable in the long run</td>
</tr>
<tr>
<td><strong>Total financial resources-to-direct debt (x)</strong></td>
<td>Measures coverage of direct debt by total financial resources including permanent endowments</td>
</tr>
<tr>
<td><strong>Total cash &amp; investments-to-direct debt (x)</strong></td>
<td>Measures coverage of direct debt by assets that generate investment return</td>
</tr>
<tr>
<td><strong>Direct debt-to-cash flow (x)</strong></td>
<td>Measures degree of indebtedness relative to operating cash flow</td>
</tr>
<tr>
<td><strong>Direct debt-to-total capitalization (x)</strong></td>
<td>Measures portion of the balance sheet funded by debt</td>
</tr>
<tr>
<td><strong>Actual debt service to operations (%)</strong></td>
<td>Measures actual debt service burden on the annual operating budget</td>
</tr>
<tr>
<td><strong>Peak debt service to operations (%)</strong></td>
<td>Measures peak debt service burden on the annual operating budget</td>
</tr>
</tbody>
</table>
### Capital expense to operations (%)
- Measures share of annual operating budget devoted to interest and depreciation
- Depreciation and interest expenses divided by total operating expenses

### Age of plant (number of years)
- Provides a crude indicator of institutional deferred maintenance as well as the operating efficiency of the existing plant facilities
- Accumulated depreciation divided by depreciation expense

### Direct debt-per-student ($)
- Compares direct debt to the size of the student body
- Direct debt divided by full-time equivalent students

### Balance Sheet Ratios:

#### Unrestricted financial resources-to-operations (x)
- Measures coverage of annual operating expenses by the most liquid financial resources
- Total unrestricted net assets less net investment in plant, divided by total operating expenses

#### Expendable financial resources-to-operations (x)
- Measures coverage of annual operating expenses by financial resources that are expendable in the long run
- Total unrestricted and temporarily restricted net assets less net investment in plant, divided by total operating expenses

#### Free expendable financial resources-to-operations (x)
- Measures coverage of annual operating expenses by expendable resources remaining after pro forma payment of all direct debt
- Total unrestricted and temporarily restricted net assets less net investment in plant less direct debt, divided by total operating expenses

#### Expendable financial resources-to-total net assets (%)
- Indicates the portion of net assets that are spendable in the long run
- Total unrestricted and temporarily restricted net assets less net investment in plant, divided by total net assets

#### Total financial resources-per-student ($)
- Compares financial resources to the size of the student body
- Total net assets less net investment in plant, divided by full-time equivalent students

### Operating Ratios:

#### Annual operating margin (%)
- Indicates the excess margin (or deficit) by which annual revenues cover operating expenses
- Adjusted total unrestricted revenues (adjustments include limiting investment income to 4.5% of previous year’s cash and investments and subtracting net assets released for construction and acquisition of fixed assets), less total unrestricted operating expenses, divided by adjusted total unrestricted revenues

#### Average operating margin (%)
- Averages operating margin over three years for a longer-term view
- Three year average of the annual operating margin

#### Operating margin excluding gifts (%)
- Measures the institution’s dependence on gifts to finance annual operations
- Adjusted total unrestricted revenues less gifts less total unrestricted operating expenses, divided by adjusted total unrestricted revenues less gifts

#### Actual debt service coverage (x)
- Measures actual margin of protection for annual debt service payments from annual operating surplus (deficit) plus interest and depreciation expenses, divided by actual principal and interest payments

#### Average actual debt service coverage (x)
- Averages actual debt service coverage over a three year period
- Three year average of actual debt service coverage

#### Average peak debt service coverage (x)
- Measures margin of protection for peak debt service payments, averaged over three years
- Three year average of annual operating surplus (deficit) plus interest and depreciation expenses, divided by peak principal and interest payments
Return on net assets (%)  
Indicates direction and degree to which an institution has improved its total resource base. Increase (decrease) in total net assets, divided by average total net assets (the sum of beginning and ending net assets divided by two).

Return on financial resources (%)  
Indicates the direction and degree to which an institution has improved its financial resources (excluding plant). Increase (decrease) in total financial resources (total net assets less net investment in plant), divided by average total financial resources (the sum of beginning and ending total financial resources divided by two).

To order reprints of this report (100 copies minimum), please call 1.212.553.1658.
Report Number: 75753