

**Measuring Operations:  
An Analysis of the Financial Statements of U.S.  
Private Colleges and Universities**

**By**

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## **Abstract**

As events in the business sector have highlighted, companies can play by the rules and yet produce misleading financial statements. This study examines the nongovernmental organizations that provide a substantial portion of higher education in the United States. We seek to determine whether private colleges and universities take advantage of the discretion available to them under accounting and auditing standards by presenting an operating measure in their statement of activities. We find that nearly 60 percent of schools report an operating measure but the items included or excluded from operations vary widely.

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Having a choice among several alternatives is usually considered a good thing. When it comes to financial reporting, however, there is a cost. Flexibility can lead to diversity in practice that makes comparisons between organizations very difficult. The organizations we study are part of the vigorous nonprofit sector of the U.S. economy. The sector is comprised of 1.2 million organizations (Independent Sector 2002), and contributes 10 percent of gross national product (Avery 2001). The accounting issue we study is the presentation of operating results in the statement of activities of nonprofit organizations. In particular, we focus on operating income which is one summary measure often used to assess the quality of management.

**LACK OF DEFINITION**

In the U.S., nonprofit organizations have considerable discretion in deciding how to display the results of operations each year. There are several possible formats for the statement of activities. Within the formats illustrated in the accounting standards, there are additional choices to make with respect to the presentation of subtotals. The Financial Accounting Standards Board (FASB) “neither requires nor precludes a nonprofit organization from classifying its revenues, expenses, gains and losses as operating or nonoperating within its statement of activities” (FASB 1993b, ¶163). The

only exceptions relate to the separate reporting of income from discontinued operations, extraordinary gains and losses, and the cumulative effect of a change in an accounting principle. This flexibility in guidance has led to variations in reporting of key summary numbers, such as an operating measure. The change in unrestricted net assets is the only measure of current operating performance specifically mentioned in the generally accepted accounting principles (GAAP) that apply to nonprofit organizations (FASB 1993b, ¶112).

In this study, we focus on a single nonprofit industry: colleges and universities. In 2001 some 15.3 million students enrolled in U.S. colleges and universities, thereby comprising the world's largest sector of higher education (NCES 2001). These students comprise a group so large that they virtually constitutes a world of their own with a population greater than the total population of Chile, Greece and the Netherlands and just less than that of Australia and Syria (Population Reference Bureau 2002). Collectively, the financial activities of these institutions represent some two percent of the gross national product (Avery 2001). The size of the U.S. higher education industry is matched by its diversity. While there are a few federal government institutions (military academies) and a small but growing number of degree-granting for-profit schools, the bulk of students attend one of the 1,729 degree-granting public institutions operated by state or local governments or one of the 1,732 private nonprofit institutions (NCES, 2001). Substantial numbers of foreign students are attracted to the U.S. for undergraduate or graduate study. The public institutions tend to have larger enrollments and lower tuition rates as compared to the private institutions.<sup>1</sup>

The reporting requirements for private and public institutions of higher education are not identical. Public institutions, such as state universities, are subject to the reporting standards of the Government Accounting Standards Board (GASB). Unlike the FASB that suggests the change in unrestricted net assets as an operating measure, the GASB's guidance for the operating income measure focuses upon the classification scheme used to report cash flow activities. The difference in guidance between the two standard setters creates difficulties in comparing private and public institutions of higher education (Engstrom and Esmond-Kiger 1997, Fischer 1997). This issue is of concern to industry groups, such as the National Association of College and University Business Officers (NACUBO) and the American Council on Education (ACE), as well as bond rating agencies (e.g., Moody's 1999a). The National Postsecondary Education Cooperative (NPEC) has also expressed interest in having a standardized operating measure (NPEC 2000). Unfortunately, the participants at a recent forum could only agree that arriving at a standard measure will take more time, effort and dialogue (Goldstein 2002).

### **Potential Impact on Decision Makers**

In theory, there are three major user groups for U.S. private college and university financial statements. The first group includes the institutions themselves and their associations (ACE, NACUBO, accreditation agencies, etc.). These users are interested in making peer group and other inter-institutional comparisons. The second major user group is comprised of entities that make lending and other resource-related decisions based on a nonprofit's financial condition. This group includes the U.S. Department of Education (DOE), bond rating agencies, foundations, and other major donors. Finally,

individual donors might be a significant user group. However, they rarely request or receive financial statements (Engstrom 1988), and generally do not base their decision to give on financial information (Gordon and Khumwala 1999). Accordingly, our analysis focuses on the first two user groups.

These two major user groups extensively employ financial statement ratio analysis of colleges and universities. A summary of these ratios is provided in Appendix A. Most accounting research (e.g., Dickmeyer & Hughes 1980; Peat, Marwick, Mitchell & Co. 1982; Minter et al. 1982; Lane et al. 1987; Chabotar 1989; DiSalvio 1989) on ratio analysis was published before several major changes in the nonprofit financial reporting model. These changes were embodied in FASB Statement No. 116 (1993a) on reporting of contributions, FASB Statement No. 117 (1993b) on financial statement display, and Statement No. 124 (1995) on accounting for investments.

The most comprehensive study directed toward institutional self-evaluation is the latest edition of KPMG's series on *Ratio Analysis in Higher Education* (KPMG. 1999). According to this accounting firm, understanding whether an institution is financially healthy requires that operating and nonoperating activities be separated into distinct components (KPMG 1999, p. 86). The study makes only two specific recommendations for items to be excluded from operations: investment gains or income in excess of the institution's spending policy and gifts to be used for capital purposes.<sup>2</sup>

Bond rating agencies have responded to the new financial format for nonprofit organizations by developing or modifying ratios to use in their evaluations. In a special report issued in February 1999, Moody's Investors Service reported that capital market

participants are frustrated with “inconsistent and inadequate classification of non-operating revenues and expenses, particularly for gift support and investment return” (p. 1).

We analyzed the decision tools used by bond rating agencies (Moody’s 1999b, Standard and Poor’s 2001, Fitch 2001) and the DOE (see Appendix A).<sup>3</sup> Several key ratios rely upon operating revenues and/or operating expenses as inputs, so the definitions of these items will affect the ratios. Our analysis of the ratios currently being used by the rating agencies indicates that the rating agencies do not use the change in unrestricted net assets as an operating measure. The adjustments that these market participants make to the numbers reported under GAAP provide “user group” evidence as to how an operating income measure might be calculated. Unfortunately, there is considerable variation in both the ratios considered important by each rating agency and the specifics of how they compute comparable ratios. Thus definitions of operating revenue and operating expense cannot be derived from an examination of bond rating procedures alone.

Since 1998, the DOE has been using a composite index based on three ratios to assess financial responsibility. This evaluation is very important in higher education since Congress has legislated that the Secretary of Education scrutinize the financial condition of institutions of higher education to determine whether they should continue to receive funding for student financial aid under Title IV Higher Education Act (HEA) programs (Pub. L. 94-482). Unrestricted revenues and total expenses are denominators in two of the three ratios. All three bond rating agencies use one or more of the DOE ratios (or variations) in their evaluations.<sup>5</sup> Standard and Poor’s generally specifies operating

expenses or operating revenues rather than the total figures in their ratios. Moody's ratios rely on total expenses with no mention of adjustments for nonoperating items, but they exclude from unrestricted revenues any investment income in excess of 4.5 percent of the previous year's ending value of cash and investments. Both Moody's and Fitch subtract temporarily restricted net assets released from restrictions if related to construction or acquisition of plant assets and other nonoperating purposes. In other words, the three bond rating agencies use or compute "operating" figures in evaluating the financial statements of colleges and universities. However, each agency computes operating revenues or operating income differently.

### **Prior Research**

Recent research has examined the implementation of FASB Statement No. 117 by college and universities. The results suggest that understandability and decision usefulness have been limited by the diversity of allowable practice. Fischer et al. (2002) reported that the majority (69 percent) of fiscal year 1997 financial statements of 61 private institutions made a voluntary distinction between operating and nonoperating income in the statement of activities. They found that some institutions reported all investment income as operating revenue, while others allocate investment income in accordance with their endowment income spending policy. That is, reinvested investment income was displayed as nonoperating revenue, while the income authorized by the endowment spending policy for programmatic activities was reported as operating revenue. Fischer et al. (2002) also found that, unlike net revenues over expenses, the change in unrestricted net assets (the measure suggested by the FASB as an operating



measure) was not correlated with cash provided by operating activities reported in the statement of cash flows.

Two studies have surveyed educational institutions with respect to their accounting and reporting practices after the issuance of FASB Statement No. 117. Weis (1999) found that about half of 125 small liberal arts colleges said they used a “third section” in the statement of activities to present “other” or “nonoperating” activities. A more recent survey (Fischer and Gordon 2002) looked at a broader population of institutions. Only 40 percent of their 293 respondents said their institutions reported an operating measure. When asked whether colleges and universities should be required to present an operating measure, 55 percent were opposed. However, a majority of the institutions (79 percent) agreed that a consistent definition is needed for colleges and universities that do present an intermediate measure of operations. The questionnaire also asked whether the institution included a footnote that described the components of the “measure of operations” and/or what was excluded from operations. Nearly half (49 percent) of the 113 institutions that claimed to present an operating measure made neither disclosure. Accordingly, it would be difficult for a financial statement user or stakeholder to make adjustments needed for inter-institutional comparisons.

## **RESEARCH DESIGN AND METHODOLOGY**

The purpose of this study is to determine whether private colleges and universities choose to present an operating measure in their statement of activities and how this measure is computed. Unlike the surveys described above, this study examines the actual financial statements issued by private colleges and universities for the fiscal year ending

in 2000. Specifically, we examine the following research questions:

1. What are the characteristics of schools that choose to display operating and nonoperating revenue and expense on the statement of activities?
2. Are particular audit firms associated with the presentation of a nonoperating section on the statement of activities?
3. Which revenue and expense items do schools classify as operating or nonoperating?
4. Do financial statement disclosures facilitate the computation of alternate definitions of operating revenues and expenses?

The annual reports were obtained in conjunction with a survey of the 1,100 four-year, degree-granting private colleges and universities in the United States to collect information regarding financial statement display. Of the 293 survey respondents, only 71 percent (207) provided their annual report.<sup>6</sup> The data reported here was derived from a content analysis of the 207 audited financial statements received. The content analysis instrument was created and tested to collect data relevant to the research questions as well as financial statement amounts, format and disclosures from the annual reports. Numerous items reported as operating revenue and operating expense and items reported in a separate “other” or “nonoperating” section were coded by entering the dollar amounts.

The quality of coding was enhanced by the use of internal controls to tie detail amounts to financial statement totals and by having the original coding checked by a second member of the research team. While every effort was made to insure the accuracy of data collected from the financial statements including verification of each other’s work, errors are possible particularly when the financial statements were in less user-friendly formats and when disclosures were inadequate. The sample size represents only

about 19 percent of the population of private U.S. four-year institutions of higher education and it is possible that those who chose not to respond to a study concerned with operating measures could be systematically different.

## **RESEARCH FINDINGS**

### **Who Reports An Operating Measure?**

While half or less of survey respondents (Weis 1999, Fischer and Gordon 2002) reported that their institutions present an operating measure in the statement of activities, Table 1 shows that 59 percent of our sample report some type of operating measure. As shown in Table 1, institutions that report an operating measure tend to be significantly larger than those that do not on most dimensions, ranging from total assets to enrollment. We found that 80 percent (24 of the 30) institutions classified as research and doctoral universities presented an operating measure. In contrast, approximately half of the comprehensive masters and baccalaureate schools reported an operating measure, and specialized schools were the least likely (39 percent) to report an operating measure. Institutions with an operating measure also charged higher tuition per student and were less tuition-dependent.

Table 2, Panel A shows that colleges and universities that use the major (Big Five) accounting firms more often include an operating measure in their statements of activity. Nearly 64 percent of schools with a Big Five auditor presented an operating measure. The institutions audited by smaller CPA firms were significantly less likely to report an operating measure (Chi-square 12.915, 1 d.f.,  $p=.0003$ ). Panel B of Table 2

shows that the Big Five audit firms were associated with the larger institutions. The differences were significant for both financial and enrollment-based measures of size.

### **What Is Included In Nonoperating Section?**

Table 3, Panel A shows the nature of items classified as nonoperating by schools that presented an intermediate measure of operations. Investment income and contributions were the two items most frequently included in the non-operating section of the statement of activities. Each item was reported by 60 percent or more of the 122 schools with an operating measure. The next most common item came in a distant third: actuarial gains or losses and other changes in value of split-interest agreements were reported in the nonoperating section by 19 institutions (15.6 percent).

**Investment income, gains or losses.** Only five schools in our study classified all investment-related revenues and gains as nonoperating. In some cases, dividends and interest income were reported as operating and gains/losses were reported as nonoperating. Other schools used their endowment spending policy to determine the amount included in operating revenue. In other words, interest and dividends might be in the nonoperating section if they exceeded the spending formula. Likewise, some portion of investment gains from current or prior years might be included in operating revenue if investment income fell below the spending formula. In many cases, investment-related amounts were commingled so that the revenues (interest and dividends) and gains/losses could not be segregated. While nearly half of the institutions in our study (97 schools) discussed an endowment spending policy, only 78 of the 97 (80 percent) provided a specific percentage or range of percentages. The mean of the reported endowment

spending formulas was 5.3 percent. As discussed earlier, Moody's Investor Services excludes from operating revenue any investment income in excess of 4.5 percent of the beginning balance in cash and investments. For schools in our study that split investment income between operating and nonoperating, the percentage of investment-related revenue classified as operating was 6.36 percent of the beginning balance in cash and investments.<sup>7</sup> Any reported endowment spending percentage would presumably apply only to investments designated as true or quasi-endowments. Income, gains and losses on other investments held by the institution might be handled differently. This additional investment income probably explains why the actual spending percentage exceeds the average reported endowment spending formula.

**Contributions and bequests.** Only 4 schools in our study classified all contributions as nonoperating. Most (70 of 74) of the schools that reported contributions in a nonoperating section also reported contributions among operating revenues. For these 70 institutions, the average proportion of contribution classified as nonoperating was 58 percent of total contributions. The criteria used to determine whether a contribution was operating or nonoperating in nature was rarely evident although permanently-restricted gifts were almost always reported in the nonoperating section. However, unrestricted contributions were split between operating and nonoperating by 44 of the 70 institutions that displayed contributions in both the operating and nonoperating sections. For these 44 schools, 26.3 percent of total unrestricted contributions were, on average, classified as nonoperating.

Some bond rating agencies estimate operating income by removing the portion of

net assets released from restrictions related to capital additions. These are contributions received in an earlier period that are being transferred from temporarily restricted to unrestricted net assets because the donors' restrictions have been satisfied. Disclosure regarding the lifting of temporary restrictions was less than adequate (Table 3, Panel B). Over half of the sample provided only a total figure on the statement of activities, and another 16 percent reported only the minimum required disclosure of time versus program restrictions (FASB 1993b). As a result, we could compute this common adjustment for only 56 annual reports (27 percent of the sample).

When the institutions provided details as to the nature of temporary restrictions at both the beginning and the end of the year, the amount of the adjustment can be estimated as the decrease in net assets restricted for capital acquisitions. Detailed ending balances for at least the current year were reported by only 84 percent of the schools. Estimates based on end-of-year balances were not necessarily accurate. We found that -- for the 56 schools that did provide a detailed breakdown of net assets released from restrictions -- the amount rarely equaled the change between the beginning and ending balances. In fact, net assets released for capital acquisitions often existed even when the ending temporarily restricted net asset balances with that restriction increased during the year.

**Other gains and losses.** The educational institutions did not follow a consistent practice in reporting the gains or losses associated with split interest agreements and payments to annuitants.<sup>8</sup> Some organizations reported these items as operating, while others reflected them as nonoperating. In some cases, information in the statement of cash flows was the only hint that such amounts were included in the financial statements

as funds held for others or as “other revenue” or “other expense.” The same was true for gains and losses related to the disposition of long-lived plant assets.

Table 4 provides additional information on the location of these two items in the statement of activities. Life income annuities and other split-interest agreements with donors were reported by nearly half of the institutions in the study. However only 19 institutions (9 percent of the sample) chose to classify these amounts nonoperating. About a quarter of the sample included the actuarial gains (and often losses) associated with these agreements as operating revenue. Sixteen percent included the change in value of split interest agreements as part of reported (operating) expenses. For 26 institutions, the change in split interest agreement was reported only on the statement of cash flows. For this 13 percent of the sample, the disclosures were not adequate to determine the location of the gain/loss on the financial statements. In those cases, we made an educated guess as to whether the gain/loss was funds held in trust for others or was included in other revenue or other expenses.

Gains and losses on disposition of plant assets were reported by 29 percent of the sample schools (Table 4). The most common presentation in this study was as revenue or contra-revenue (25 percent). Only five schools included this item in their nonoperating section (4 percent of those schools who reported an operating measure). The 2001 AICPA proposed statement of position on accounting for fixed assets treats gain/(loss) on disposition of plant assets as a decrease/(increase) in depreciation expense. If adopted, colleges and universities would be required to allocate such gains and losses to the various program functions reported in the operating expense section. The new

guidelines, if enacted, may help standardize the presentation of this item.

## SUMMARY AND CONCLUSION

The U.S. system of higher education has many characteristics other than size that make it unique in a broader international context. Nearly 3.5 million students attend some 1,700 private institutions of higher education in the United States. There is considerable latitude in the design of curricula, particularly for undergraduate programs. Private colleges often capitalize on this latitude to provide their vision of a liberal education. The diversity of the sector is treasured and protected by a number of national associations that look after the interests of and publicize the virtues of their member schools (Geiger 1986, 161). These schools compete with the public sector for students, strive to remain independent even while courting public support, and struggle to maintain diverse streams of revenue from students, alumni, and investments. Almost all of them periodically borrow money in the capital markets.

Consistent with the diversity of the sector, the flexibility in FASB Statement No. 117 was intended to let not-for-profit organizations make distinctions that they believe will provide more meaningful information for the users of their financial statements (§66-68). This study focused on one aspect of the permissible diversity in practice: operating performance measures on the statement of activities. Our findings indicate that only 60 percent of private colleges and universities report a separate operating measure. These schools tended to be the larger research institutions audited by a Big Five audit firm. Among the schools that chose to display operating income and operating revenue we found wide differences in definition and computation.



The inclusion of tuition, room and board and similar income earned in direct exchange for services provided do not appear to be controversial: all institutions in our sample reported these items as operating revenue. Revenues from auxiliary enterprises like dormitories were almost always separately stated and included in operating revenue, and the related auxiliary expenses were separately reported among operating expenses. Most other expenses were also reported in the operating section and in accordance with current accounting standards (with the occasional exception of interest expense and depreciation).

The treatment of contributions and investment income, gains or losses was another story. These were the two items most frequently excluded from operating revenue by a majority of the schools that made a distinction between operating and other income. Since almost all institutions have these two sources of revenue, improved standardization would be very helpful to financial statement user groups. The treatment of gains and losses related to split-interest agreements is another fairly common item accounted for in a variety of ways by the schools in our sample. Determining the proper treatment of just these three items would go a long way toward enhancing the comparability of the financial statements of private colleges and universities.

In a special report issued in February 1999, Moody's Investors Service declared that capital market participants are frustrated with higher education's inconsistent and inadequate classification of nonoperating revenues and expenses. Goldstein (2002) reported that a variety of constituents agreed on the need for a standard definition of operating income. This was confirmed by a survey of college and university business

officers (Fischer and Gordon 2002). Our study has added value to the debate by providing evidence from actual financial statements as to the variety of practices in existence.

The problems created by a lack of operating measure have been highlighted by the investment losses almost all institutions incurred in 2001 and 2002. When investment gains and losses are included among operating income, performance can vary dramatically from year to year masking the underlying stability of the sector (S&P 2002). The schools that report only their endowment spending in revenue may have what appears to be an uneventful year since investment losses would be reported “below the line.” The financial reporting choices available for the statement of activities can make the performance of essentially identical private institutions look dramatically different.

The existence of two different accounting standard setting bodies for U.S. institutions of higher education makes matters worse. The new reporting model for public institutions (GASB Statement Nos. 34 and 35, 1999a, 1999b) requires colleges and universities to make a distinction between operating and nonoperating revenues and expenses. GASB Statement No. 34 paragraph 102 states that the operating revenue and expense classifications should be consistent with GASB Statement No. 9 (1989) on the cash flow statement. The GASB definition is one potential starting point for developing a consistent operating measure for private educational institutions. Ideally, such a measure would allow users to compare the performance of private and public educational institutions. Practically, more work is needed to allow such comparisons due to the other differences in between FASB and GASB standards. For example, the GASB

classification of items such as interest paid and investment income received is very different from that required on a FASB statement of cash flows (SFAS No. 95, 1987). Additional guidance from both standard setters could reduce the existing difficulties involved in comparing private and public institutions of higher education.

The variations found in the financial statements we examined have the potential to influence decision makers who rely on financial data. Our analysis of decision tools used by bond rating agencies and the U.S. Department of Education (DOE) suggests that several key ratios would be affected by the choices institutions make as to what should be included or excluded from operating revenues and operating expenses.

Future research is needed to determine whether different measures of operation would have a significant impact on key ratios. While variations in practice clearly exist, do they matter? We do not know whether the differences between the total changes in net assets and the total changes in unrestricted net assets or various alternative measures of operation are large enough to affect the decisions made by financial statement users.

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**Table 1 – Characteristics of Institutions with and without an Operating Measure**

		Institutions Presenting an Intermediate Operating Measure	Institutions without an Intermediate Operating Measure	Sample (Significance level for difference in mean)
Number of annual reports		122	85	207
	Percentage	58.94%	41.06%	100.00%
Total Assets (in thousands)				
	Mean	\$ 1,056,800**	\$ 265,277	\$ 731,779
	Median	236,996*	79,606	116,765
Long-term investments (in thousands)				
	Mean	\$ 736,593**	\$ 171,030	\$ 504,357
	Median	105,549*	34,731	57,571
Permanently restricted net assets (in thousands)				
	Mean	\$ 146,847*	\$ 45,268	\$ 105,136
	Median	31,220*	14,699	24,927
Total revenues (all sections - in thousands)				
	Mean	\$ 344,336*	\$ 97,613	\$ 243,025
	Median	76,366*	27,341	43,762
Total expense (all sections - in thousands)				
	Mean	\$ 211,885*	\$ 58,672	\$ 148,971
	Median	53,324*	21,205	35,634
Fall FTE enrollment				
	Mean	4,595*	2,587	3,770
	Median	2,327*	1,596	1,906
Net tuition per student				
	Mean	\$ 11,441*	\$ 8,643	\$ 10,292
	Median	9,964*	8,008	5,331
Tuition dependency ratio				
	Mean	79.0%*	83.4%	80.8%
	Median	84.9%*	86.3%	85.7%
Leverage (available net assets to long-term debt)				
	Mean	10.948***	30.3074	18.6319
	Median	4.39*	4.87	4.41

Dollar amounts obtained from content analysis of financial statements, enrollment data from 2000 Higher Education Directory. Tuition dependency ratio was computed (in accordance with KPMG technique) as net tuition revenue divided by operating income. Leverage equals (unrestricted net assets + temporarily restricted net assets)/long-term debt. \* significance level of 0.01 or less, \*\* significance level of 0.05 or less, \*\*\* significance level of 0.10 or less using two-tailed t-test for comparison of means and Wilcoxon sign rank test for medians.



**Table 2 – Auditors Associated with Operating Measures  
and Characteristics of Auditees**

**Panel A – Audit Firm and Use of Intermediate Operating Measure**

	Institutions Presenting an Intermediate Operating Measure	Institutions without an Intermediate Operating Measure	Sample	Percentage
Arthur Andersen	13	1	14	6.9%
Deloitte & Touche	15	8	23	11.3%
Ernst & Young	10	3	13	6.4%
KPMG Peat Marwick	21	20	41	20.1%
PriceWaterhouseCoopers	29	10	39	19.1%
Big-5 accounting firms	88	42	130	63.7%
Other CPA firms	31	43	74	36.3%
Total	119	85	204	100.0%

Chi-square = 12.915 1 d.f. p = .0003

**Panel B - Characteristics of Auditees**

	n=204	Big-5 Audit Firm	Other CPA Firms	Sample (Significance level for difference in mean)
Total Assets (in thousands)	Mean Median	\$ 1,116,324* 297,364*	\$ 81,544 58,921	\$ 740,963 119,173
Long-term investments (in thousands)	Mean Median	\$ 777,697* 150,648*	\$ 43,203 22,418	\$ 511,263 57,719
Permanently restricted net assets (in thousands)	Mean Median	\$ 156,627* 47,013*	\$ 18,654 10,051	\$ 106,578 25,075
Total revenues (all sections - in thousands)	Mean Median	\$ 368,987* 86,220*	\$ 29,431 22,612	\$ 245,815 42,889
Total expense (all sections - in thousands)	Mean Median	\$ 223,073* 61,486*	\$ 22,988 18,602	\$ 150,493 376,933
Fall FTE enrollment	Mean Median	4,921* 2,737*	1,728 1,357	3,763 4,544

\* significance level of 0.01 or less, \*\* significance level of 0.05 or less, \*\*\* significance level of 0.10 or less using two-tailed t-test for comparison of means and Wilcoxon sign rank test for medians.

**Table 3 – Nature of Items Reported as Nonoperating and Related Disclosures**

Panel A	Frequency n=122	Percentage of Institutions with an Operating Measure
Investment income, gains or losses	100	82.0%
Contributions and bequests	74	60.7%
Change in value of split interest agreements including actuarial gains and losses	19	15.6%
Plant expenses* (primarily depreciation and/or interest expense)	11	9.0%
Gain/loss on sale of long-lived assets	5	4.1%
Revenues from government sources	4	3.3%
Cumulative effect of change in accounting principle	3	2.5%
Discontinued operations	1	0.8%
Extraordinary gain or loss	1	0.8%
Investment management fees or fund raising costs	0	0.0%
Other items not listed above	15	12.3%

\*Note that depreciation and interest are to be allocated to program functions according to the audit guide. Accordingly, one would presume that these items would be considered operating expenses.

## Panel B

	Frequency	Percentage of Sample
<b>Expiration of donor-imposed restrictions:</b>		
Total amount only	117	56.5%
Minimum required breakdown between program restrictions and time restrictions	34	16.4%
Detailed breakdown as to specific program restrictions met (e.g., capital versus operating)	56	27.1%
	207	100.0%
<b>Nature and amount of different types of restrictions on</b>		
Temporarily restricted net assets	173	83.6%
Permanently restricted net assets	176	85.0%

**Table 4 – Presentation of Change in Split Interest Agreements and Gain/Loss on Disposition of Plant Assets**

	Institutions Presenting an Intermediate Operating Measure	Institutions without an Intermediate Operating Measure	Total
Number of institutions	122	85	207
<b>Changes in value of split interest agreements including actuarial gains and losses</b>			
Specifically listed as an item in revenue section	12	25	37
Not specifically listed - presumed buried in "other" revenue	6	8	14
	18	33	51
	14.8%	38.8%	24.6%
Specifically listed as an item in the expense section	8	13	21
Not specifically listed - presumed buried in "other" expense	10	2	12
	18	15	33
	14.8%	17.6%	15.9%
Listed in nonoperating section	19		19
	15.6%	0.0%	9.2%
Totals for change in value of split interest agreements	55	48	103
	45.1%	56.5%	49.8%
	Institutions Presenting an Intermediate Operating Measure	Institutions without an Intermediate Operating Measure	Total
<b>Gains and losses from sale or disposition of long-lived assets</b>			
Specifically listed as an item in revenue section	2	6	8
Not specifically listed - presumed buried in "other" revenue	16	21	37
	18	27	45
	14.8%	31.8%	21.7%
Specifically listed as an item in the expense section	3	4	7
Not specifically listed - presumed buried in "other" expense	1	1	2
	4	5	9
	3.3%	5.9%	4.3%
Listed in nonoperating section	5		5
	4.1%	0.0%	2.4%
Totals for gains or losses on disposition of long-lived assets	27	32	59
	22.1%	37.6%	28.5%

## APPENDIX A -- Key Ratios For Evaluating Private Colleges and Universities

“X” indicates listing as a “key” ratio. ”s” indicates listing but not as a “key” ratio	Standard & Poor’s	Moody’s	Fitch	Dept. of Ed.	KPMG
<b>Primary Reserve Ratio:<sup>a</sup></b>  $\frac{\text{Expendable Net Assets}^b}{\text{Total (or Operating) Expenses}^c}$	X	X		X	X
<b>Other Resources-to-Operations Ratios:</b>  $\frac{\text{Unrestricted Resources}^d}{\text{Total (or Operating) Expenses}}$ $\frac{\text{Face Value of Cash and Investments}}{\text{Operating Expenses}}$ $\frac{\text{Available (or Unrestricted) Cash and Investments}}{\text{Total Unrestricted (or Operating) Expenses}}$	X <sup>e</sup>	X <sup>f</sup>			
<b>Net Income Ratio:<sup>i</sup></b>  $\frac{\text{Change in Unrestricted Net Assets}}{\text{Total Unrestricted Revenue}}$ $\frac{\text{Adjusted Total Unrestricted Revenues - Unrestricted Expenses}}{\text{Adjusted Total Unrestricted Revenues}}$ $\frac{\text{Change in Unrestricted Oper. Revenues Over Unrestricted Oper. Expenses}}{\text{Total Unrestricted Operating Income}}$				X	X
		X <sup>j</sup>	X <sup>k</sup>		X

- <sup>a</sup> Only KPMG and the U.S. Dept. of Education describe this ratio as the “primary reserve ratio” although all of the rating agencies except Fitch list it as a key ratio.
- <sup>b</sup> For S&P, Moody and KPMG, expendable net assets = total net assets – permanently restricted net assets – (property, plant, and equipment – long-term debt). The Dept. of Education formula includes more adjustments: expendable net assets = (unrestricted net assets) + (temporarily restricted net assets) – (annuities, term endowments, and life income funds that are temporarily restricted) – (intangible assets) – (net property, plant and equipment) + (post-employment and retirement liabilities) + (all debt obtained for long-term purposes). Note that Fitch specifically says that they do not use net assets over expenses as a measure of liquidity due to the uncertainties regarding the liquidity of certain assets included in the computation of expendable net assets.
- <sup>c</sup> Only Standard and Poor’s indicates use of total operating expenses rather than total expenses in the denominator of this ratio.
- <sup>d</sup> Unrestricted resources = unrestricted net assets – (net property, plant and equipment) – outstanding long-term debt (S&P)
- <sup>e</sup> S&P uses operating expenses in the denominator.
- <sup>f</sup> Moody uses total expenses in the denominator.
- <sup>g</sup> Standard and Poor’s uses “total operating expenses” instead of “total unrestricted expenses.”
- <sup>h</sup> Fitch uses unrestricted and temporarily restricted cash and investments in the numerator. They call this figure “available funds.” The denominator is total unrestricted expenses although the discussion hints that adjustments might be made.
- <sup>i</sup> Net income ratio is the terminology used by KPMG and the Dept. of Education. Variations on this ratio are referred to as operating margin (Moody’s and Fitch).
- <sup>j</sup> Moody adjusts unrestricted revenues by limiting investment income to 4.5% of previous year’s ending value of cash and investments and subtracting net assets released from restrictions for construction and acquisition of fixed assets. Moody computes an alternate version of the ratio that excludes contributions and gifts from both the numerator and the denominator.
- <sup>k</sup> Fitch adjusts the change in unrestricted net assets for net assets released from restrictions related to non-operating purposes such as capital needs. Fitch says variations of the ratio may be calculated which exclude unrealized gains and loss and nonrecurring items to more accurately assess the institution’s core operations. Fitch also computes a smoothed version of the ratio using 3-year averages.

Appendix A, continued

“X” indicates listing as a “key” ratio. ”s” indicates listing but not as a “key” ratio	Standard & Poor’s	Moody’s	Fitch	Dept. of Ed.	KPMG
<b>Return on Net Assets Ratio:</b>  $\frac{\text{Change in Total Net Assets}}{\text{Total Net Assets}}$		X <sup>a</sup>			X
<b>Equity Ratio:</b>  $\frac{\text{Modified Net Assets}}{\text{Modified Assets}}$				X <sup>b</sup>	s
<b>Viability Ratio:</b>  $\frac{\text{Expendable Net Assets}^1}{\text{Long-Term Debt}}$					X
<b>Other Resources-to-Debt Ratios:</b>  $\frac{\text{Available (or Unrestricted) Cash and Investments}}{\text{Total Debt}}$  $\frac{\text{Face Value of Cash and Investments}}{\text{Total Debt}}$  $\frac{\text{Expendable Unrestricted Net Assets}}{\text{Direct (or Comprehensive) Debt}}$  $\frac{\text{Available Net Assets}^f}{\text{Long-Term Debt}}$  $\frac{\text{Expendable Net Assets}^1}{\text{Total Debt}}$	X <sup>c</sup>  X    X		X <sup>d</sup>		    s

<sup>a</sup> Moody uses average net assets in the denominator. Moody also lists a variation of this ratio called “return on financial assets.” It is the change in total financial resources divided by the average total financial resources. Financial resources are defined as total net assets less (plant, property and equipment – related debt).

<sup>b</sup> Dept. of Education modifies equity and assets by subtracting intangible assets and unsecured related party receivables:  
Modified Net Assets = (total net assets) – (intangible assets) – (unsecured related-party receivables).  
Modified Assets = (total assets) – (intangible assets) – (unsecured related-party receivables).

<sup>c</sup> S&P apparently uses the face value of all cash and investments in the numerator rather than omitting restricted cash and investments as is done to one degree or another by the other rating agencies.

<sup>d</sup> Fitch uses unrestricted cash and investments which they refer to as “available funds.”

<sup>e</sup> Moody calls this ratio “unrestricted financial resources-to-debt” and computes two versions. The first uses “direct debt” in the denominator and the second uses “comprehensive debt” which includes certain off-balance sheet instruments such as private developer-financed borrowings for projects, operating leases, etc. Direct debt is the debt upon which principal and interest payments are due. Unrestricted financial resources are defined as total unrestricted net assets less (investment in plant less related debt).

<sup>f</sup> Available Net Assets (as compared to expendable net assets) includes equity in plant, property and equipment. That is what makes this ratio different from the viability ratio.

<sup>g</sup> Moody’s also computes this ratio based on direct debt only. Direct debt includes all debt for which an institution is legally obligated to pay debt service, such as bonds, notes, and capital leases.

Appendix A, continued

“X” indicates listing as a “key” ratio. ”s” indicates listing but not as a “key” ratio	Standard & Poor’s	Moody’s	Fitch	Dept. of Ed.	KPMG
Debt Service Burden Ratios:			X		
$\frac{\text{Maximum Annual Debt Service}}{\text{Total Unrestricted Revenues}}$					
$\frac{\text{Maximum Annual Debt Service}}{\text{Total (Operating) Expenses}}$	X <sup>a</sup>	X <sup>b</sup>			
$\frac{\text{Actual Debt Service}}{\text{Total Expenses}}$		X			s
Debt Service Coverage:					
$\frac{\text{Adjusted Change in Net Assets}}{\text{Maximum Annual Debt Service}}$		X <sup>c</sup>			
$\frac{\text{Net Revenues (or Adjusted Change in Net Assets)}}{\text{Actual Annual Debt Service}}$		X <sup>d</sup>	X <sup>e</sup>		s
$\frac{\text{Adjusted change in net assets}}{\text{Maximum Future Annual Debt Service}}$	X <sup>f</sup>	X <sup>g</sup>			
$\frac{\text{Available (or Unrestricted) Cash and Investments}}{\text{Maximum Annual Debt Service}}$			X <sup>h</sup>		

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<sup>a</sup> Standard & Poors includes proforma debt service costs for proposed new issues of debt in the numerator and uses total operating expenses rather than total expenses in the denominator.

<sup>b</sup> Moody’s calls this the “peak debt service-to-operations” ratio and divides by total expenses instead of total operating expenses.

<sup>c</sup> Moody’s also computes a smoothed version by taking a three-year average of (the change in net assets + depreciation + interest paid) divided by the maximum principal and interest payment during the period.

<sup>d</sup> Moody also computes a smoothed version of this ratio using 3-year averages.

<sup>e</sup> Fitch’s “annual net revenues” is the change in unrestricted net assets with noncash items like depreciation being added back along with interest that was expensed during the year. It is probably equivalent to S&P’s “adjusted change in net assets.” Fitch says that they also compute this ratio using “existing fund balance” but did not explain this term.

<sup>f</sup> S&P does not define “adjusted change in net assets” but presumably the adjustments would be to add back depreciation expense and interest paid.

<sup>g</sup> Moody only lists “Average peak debt service coverage” which is a smoothed version of this ratio (using 3-year averages).

<sup>h</sup> Fitch uses unrestricted cash and investments which they refer to as “available funds.”

## END NOTES

<sup>1</sup> In Fall 1999, only 6 percent of private institutions (as compared to 44 percent of publics) had 5,000 or more students, and the majority of private schools (61 percent) had fewer than 1,000 students enrolled. For the 2000-2001 school year, the tuition at private institutions was, on average, 4.43 times higher than what state residents paid to attend the public institutions in their state. Only about seven percent of undergraduate students are not U.S. citizens but twelve percent of all master's degrees and 26.7 percent of all doctoral degrees in 1994 were granted to foreign students. The percentage of science and engineering degrees earned by foreign students was substantially higher--nearly a third of the master's degrees and over 40 percent of the doctorates. These statistics are derived information compiled by the U.S. Department of Education at <http://nces.ed.gov/>.

<sup>2</sup> The recommendations become more detailed when the computational details of ratios are examined. For certain ratios, contributions are not considered operating revenue: KPMG defines operating income as "the sum of all self-generated income other than investment income, contributions, and net assets released from restrictions" (KPMG 1999, p. 43). In the accompanying illustrations, KPMG also subtracts auxiliary enterprise expenses.

<sup>3</sup> The DOE rating system is based on the KPMG study. The specific rules are available through <http://www.ifap.ed.gov> as Appendix G to 34 CFR Part 668.

<sup>4</sup>

<sup>5</sup> If some revenues (or expenses) are segregated in a nonoperating section on the statement of activities, the total unrestricted revenues (or total expenses) figures will be different from the comparable totals had the statement been prepared without the nonoperating section.

<sup>6</sup> In the U.S., financial statements of nonprofit entities is not public information. Instead, most large nonprofits (other than churches) are required to file an annual information return (Form 990) which includes financial information presumably consistent with the audited financial statements. However, the reliability of Form 990 data as a substitute for the complete set of financial statements has been shown to be problematic (Fischer, Gordon & Kraut 2002).

<sup>7</sup> Since five schools reported all investment-related income in the nonoperating section, and another four schools did not provide prior year balance sheet information, this computation is based on 113 schools. The standard deviation was 5.66 percent.

<sup>8</sup> All nonprofits should report separately certain special items -- extraordinary gains or losses, discontinued operations and effect of change in accounting principle. None of the institutions in our sample had a nonoperating section that only included one of the special items; rather they always reported at least one other nonoperating revenue or loss.