Financial Ratios
(Fiscal Year 2016)
<table>
<thead>
<tr>
<th>Are resources sufficient and flexible enough to support the mission?</th>
<th>Are resources, including debt, managed strategically to advance the mission?</th>
<th>Does asset performance and management support the strategic direction?</th>
<th>Do operating results indicate the institution is living with available resources?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve Ratio</td>
<td>Viability Ratio</td>
<td>Return on Total Net Position Ratio</td>
<td>Salaries, Wages and Fringe Benefits Demand Ratio</td>
</tr>
<tr>
<td>Secondary Reserve Ratio</td>
<td>Long-Term Liability to Unrestricted Net Position Ratio, net of GASB 68 effect</td>
<td>Return on Expendable Net Position Ratio</td>
<td>Payments to Suppliers Demand Ratio</td>
</tr>
<tr>
<td>Capitalization Ratio</td>
<td>Debt Burden Ratio</td>
<td>Composition of Equity Ratio</td>
<td>Gross Tuition Contribution per Student FTE Ratio</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>Debt Coverage Ratio</td>
<td>Financial Net Position Ratio</td>
<td>State Appropriation Contribution Ratio</td>
</tr>
<tr>
<td>Days of Cash on Hand Ratio, with Unrestricted Long-term Investments</td>
<td>Physical Asset Reinvestment Ratio</td>
<td>Auxiliary Enterprises Contribution Ratio</td>
<td>Institutional Support Demand Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age of Facilities Ratio</td>
<td>Operations and Maintenance Demand Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hospital Operations Contribution Ratio</td>
<td>Student Aid Demand Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Educational Support Demand Ratio</td>
<td>Auxiliary Enterprises Demand Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hospital Operations Demand Ratio</td>
</tr>
</tbody>
</table>
Mississippi Institutions of Higher Learning
Financial Ratios
Fiscal Year 2016

The following section of this report contains financial ratio data from the most current period available, fiscal year 2016. The ratios contained herein are the same as that presented in previous editions. The ratio data is calculated based upon audited financial statements, prepared as prescribed by the GASB (Governmental Accounting Standards Board). For those ratios affected by the implementation of GASB Statement No. 68, Accounting and Financial Reporting for Pensions, those balances were removed from the calculation (FY2015 and forward). There will be no attempt to explain the ratio differences between IHL institutions. Instead the information is presented by institution on a side-by-side basis as to generate thought and discussion.
## Measures of Resource Sufficiency and Flexibility

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Target *</th>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMMC</th>
<th>EO</th>
<th>SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve Ratio **</td>
<td>.40x</td>
<td>0.55</td>
<td>0.14</td>
<td>0.09</td>
<td>0.34</td>
<td>0.33</td>
<td>0.30</td>
<td>0.73</td>
<td>0.26</td>
<td>0.34</td>
<td>0.38</td>
<td>0.373</td>
</tr>
<tr>
<td>Secondary Reserve Ratio</td>
<td>none</td>
<td>0.14</td>
<td>0.00</td>
<td>0.15</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.10</td>
<td>0.00</td>
<td>0.02</td>
<td>0.17</td>
<td>0.043</td>
</tr>
<tr>
<td>Capitalization Ratio **</td>
<td>50% to 85%</td>
<td>68.58%</td>
<td>76.66%</td>
<td>61.28%</td>
<td>63.21%</td>
<td>88.97%</td>
<td>77.27%</td>
<td>71.32%</td>
<td>61.30%</td>
<td>54.77%</td>
<td>57.30%</td>
<td>63.96%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>2.00x</td>
<td>7.63</td>
<td>1.99</td>
<td>1.63</td>
<td>2.82</td>
<td>2.74</td>
<td>6.36</td>
<td>2.13</td>
<td>1.59</td>
<td>3.03</td>
<td>1.97</td>
<td>2.62</td>
</tr>
<tr>
<td>Days of Cash on Hand Ratio</td>
<td>&gt; 80x</td>
<td>17.23</td>
<td>28.03</td>
<td>7.68</td>
<td>58.36</td>
<td>54.50</td>
<td>96.48</td>
<td>127.31</td>
<td>45.12</td>
<td>67.33</td>
<td>95.00</td>
<td>71.24</td>
</tr>
<tr>
<td>Days of Cash on Hand Ratio with Unrestricted Long-term Investments</td>
<td>&gt; 80x</td>
<td>17.23</td>
<td>64.52</td>
<td>7.68</td>
<td>101.02</td>
<td>114.40</td>
<td>105.01</td>
<td>267.45</td>
<td>97.60</td>
<td>78.05</td>
<td>246.80</td>
<td>114.13</td>
</tr>
</tbody>
</table>

## Measures of Resource Management, including Debt

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Target *</th>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMMC</th>
<th>EO</th>
<th>SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viability Ratio **</td>
<td>none</td>
<td>0.93</td>
<td>0.58</td>
<td>0.19</td>
<td>0.73</td>
<td>45.64</td>
<td>0.85</td>
<td>1.29</td>
<td>0.47</td>
<td>1.87</td>
<td>0.98</td>
<td>1.04</td>
</tr>
<tr>
<td>Long-Term Liability to Unrestricted Net Position Ratio, net of GASB 68 effect **</td>
<td>1.08</td>
<td>2.10</td>
<td>9.27</td>
<td>1.62</td>
<td>0.08</td>
<td>1.34</td>
<td>0.89</td>
<td>3.35</td>
<td>0.73</td>
<td>4.38</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Debt Burden Ratio</td>
<td>&lt; 7.0%</td>
<td>3.39%</td>
<td>3.26%</td>
<td>3.68%</td>
<td>3.69%</td>
<td>0.31%</td>
<td>2.13%</td>
<td>3.55%</td>
<td>4.32%</td>
<td>1.30%</td>
<td>0.00%</td>
<td>2.54%</td>
</tr>
<tr>
<td>Debt Coverage Ratio</td>
<td>1.2 to 1.4x</td>
<td>0.98</td>
<td>-2.99</td>
<td>-0.01</td>
<td>3.00</td>
<td>-1.90</td>
<td>2.19</td>
<td>6.29</td>
<td>0.78</td>
<td>2.23</td>
<td>0.00</td>
<td>2.36</td>
</tr>
</tbody>
</table>

## Measures of Operating Performance (Contribution & Demand Ratios)

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Target *</th>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMMC</th>
<th>EO</th>
<th>SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Operating Revenues Ratio</td>
<td>2% to 4%</td>
<td>-1.99%</td>
<td>-16.67%</td>
<td>-6.87%</td>
<td>5.10%</td>
<td>-4.48%</td>
<td>-2.97%</td>
<td>11.77%</td>
<td>-2.85%</td>
<td>-0.97%</td>
<td>1.04%</td>
<td>1.45%</td>
</tr>
<tr>
<td>Gross Tuition Contribution Ratio</td>
<td>none</td>
<td>24.09%</td>
<td>27.97%</td>
<td>33.46%</td>
<td>34.63%</td>
<td>37.91%</td>
<td>24.87%</td>
<td>61.29%</td>
<td>38.83%</td>
<td>2.12%</td>
<td>23.93%</td>
<td></td>
</tr>
<tr>
<td>Gross Tuition Contribution per Student FTE Ratio</td>
<td>none</td>
<td>$6,695</td>
<td>$7,350</td>
<td>$8,225</td>
<td>$12,630</td>
<td>$8,745</td>
<td>$6,662</td>
<td>$16,029</td>
<td>$10,360</td>
<td>$10,281</td>
<td>$11,785</td>
<td></td>
</tr>
<tr>
<td>State Appropriation Contribution Ratio</td>
<td>none</td>
<td>35.37%</td>
<td>30.08%</td>
<td>24.75%</td>
<td>27.39%</td>
<td>32.28%</td>
<td>32.89%</td>
<td>18.98%</td>
<td>27.31%</td>
<td>12.73%</td>
<td>65.73%</td>
<td>21.27%</td>
</tr>
<tr>
<td>Gifts, Grants and Contracts Contribution Ratio</td>
<td>none</td>
<td>29.55%</td>
<td>19.35%</td>
<td>30.64%</td>
<td>35.41%</td>
<td>28.84%</td>
<td>32.18%</td>
<td>23.31%</td>
<td>28.61%</td>
<td>4.96%</td>
<td>5.45%</td>
<td>18.88%</td>
</tr>
<tr>
<td>Auxiliary Enterprises Contribution Ratio</td>
<td>none</td>
<td>16.39%</td>
<td>11.33%</td>
<td>15.35%</td>
<td>14.51%</td>
<td>8.09%</td>
<td>17.38%</td>
<td>22.20%</td>
<td>11.61%</td>
<td>0.27%</td>
<td>2.84%</td>
<td>9.17%</td>
</tr>
<tr>
<td>Hospital Operations Contribution Ratio</td>
<td>none</td>
<td>12.78%</td>
<td>9.14%</td>
<td>17.03%</td>
<td>8.52%</td>
<td>11.19%</td>
<td>12.28%</td>
<td>4.70%</td>
<td>7.45%</td>
<td>8.99%</td>
<td>34.02%</td>
<td>9.25%</td>
</tr>
<tr>
<td>Salaries, Wages and Fringe Benefits Demand Ratio</td>
<td>none</td>
<td>60.79%</td>
<td>57.55%</td>
<td>55.60%</td>
<td>63.53%</td>
<td>59.14%</td>
<td>59.16%</td>
<td>49.71%</td>
<td>61.49%</td>
<td>64.32%</td>
<td>13.45%</td>
<td>59.58%</td>
</tr>
<tr>
<td>Payments to Suppliers Demand Ratio</td>
<td>none</td>
<td>19.65%</td>
<td>24.91%</td>
<td>28.48%</td>
<td>16.57%</td>
<td>21.67%</td>
<td>23.73%</td>
<td>17.82%</td>
<td>21.93%</td>
<td>31.14%</td>
<td>29.38%</td>
<td>24.46%</td>
</tr>
<tr>
<td>Instruction Demand Ratio</td>
<td>none</td>
<td>24.26%</td>
<td>33.51%</td>
<td>35.09%</td>
<td>18.97%</td>
<td>31.47%</td>
<td>27.99%</td>
<td>24.22%</td>
<td>30.27%</td>
<td>12.55%</td>
<td>19.36%</td>
<td></td>
</tr>
<tr>
<td>Research Demand Ratio</td>
<td>none</td>
<td>7.94%</td>
<td>0.34%</td>
<td>9.17%</td>
<td>21.35%</td>
<td>1.07%</td>
<td>0.03%</td>
<td>11.83%</td>
<td>14.66%</td>
<td>2.25%</td>
<td>9.10%</td>
<td></td>
</tr>
<tr>
<td>Public Service Demand Ratio</td>
<td>none</td>
<td>7.11%</td>
<td>6.12%</td>
<td>0.47%</td>
<td>15.21%</td>
<td>1.09%</td>
<td>6.48%</td>
<td>1.06%</td>
<td>5.70%</td>
<td>0.86%</td>
<td>0.31%</td>
<td>4.49%</td>
</tr>
<tr>
<td>Institutional Support Demand Ratio</td>
<td>none</td>
<td>12.78%</td>
<td>9.14%</td>
<td>17.03%</td>
<td>8.52%</td>
<td>11.19%</td>
<td>12.28%</td>
<td>4.70%</td>
<td>7.45%</td>
<td>8.99%</td>
<td>34.02%</td>
<td>9.25%</td>
</tr>
<tr>
<td>Educational Support Demand Ratio</td>
<td>none</td>
<td>16.30%</td>
<td>18.43%</td>
<td>13.47%</td>
<td>7.51%</td>
<td>23.67%</td>
<td>17.91%</td>
<td>10.11%</td>
<td>10.23%</td>
<td>1.19%</td>
<td>3.70%</td>
<td>6.63%</td>
</tr>
<tr>
<td>Operations and Maintenance Demand Ratio</td>
<td>none</td>
<td>7.88%</td>
<td>9.59%</td>
<td>7.91%</td>
<td>3.70%</td>
<td>11.23%</td>
<td>11.02%</td>
<td>6.72%</td>
<td>9.20%</td>
<td>2.68%</td>
<td>4.78%</td>
<td>4.94%</td>
</tr>
<tr>
<td>Student Aid Demand Ratio</td>
<td>none</td>
<td>9.08%</td>
<td>8.60%</td>
<td>5.54%</td>
<td>4.29%</td>
<td>12.30%</td>
<td>7.44%</td>
<td>7.30%</td>
<td>7.52%</td>
<td>0.44%</td>
<td>51.94%</td>
<td>5.02%</td>
</tr>
<tr>
<td>Auxiliary Enterprises Demand Ratio</td>
<td>none</td>
<td>11.29%</td>
<td>11.32%</td>
<td>11.80%</td>
<td>10.20%</td>
<td>7.35%</td>
<td>12.25%</td>
<td>15.14%</td>
<td>11.61%</td>
<td>0.26%</td>
<td>3.83%</td>
<td>7.09%</td>
</tr>
<tr>
<td>Hospital Operations Demand Ratio</td>
<td>none</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
<td>67.93%</td>
</tr>
</tbody>
</table>

* targets are industry specific for public four-year higher education institutions

**excludes net pension liability and related deferred in/outflows of resources due to GASB 68 implementation for FY2015 and forward

Source: Institutions annual GASB financial statements
Measures of Resource Sufficiency and Flexibility

The ratios depicted in this section are useful in calculating whether the institution is financially sound, and whether it has the ability to achieve and sustain a level of resources sufficient to realize its strategic objectives. The institution’s needs must be linked to its mission. Determining what resources are required to enable the institution to achieve its strategic objectives may be one of the most significant issues addressed by a governing board. Questions to ask of the institution are:

- Can resources be increased sufficiently in order to realize objectives?
- Does the institution need to reevaluate and perhaps modify its mission and priorities in light of its current and future resources?

**Primary Reserve Ratio**

The Primary Reserve Ratio measures the financial strength of the institution by comparing expendable net position to total expenses. Expendable net position represents those assets that the institution can access quickly and spend to satisfy its debt obligations. By providing a snapshot of the institution’s financial strength and flexibility, this ratio indicates how long the institution could function using its expendable reserves without relying on additional net position generated by operations. It is reasonable to expect expendable net position to increase at least in proportion to the rate of growth in operating size. A negative or decreasing trend over time indicates a weakening financial condition.

The revised Primary Reserve Ratio is calculated as follows:

\[
\frac{\text{Unrestricted + Expendable Net Positions + Net Pension Liability & Related Deferrals}}{\text{Total Expenses}}
\]

Industry accounting standards suggest that a Primary Reserve Ratio of .40X or better is advisable to give the institution the flexibility to transform the enterprise. The implication of .40X is that the institution would have ability to cover about five months of expenses (40 percent of 12 months). Generally, institutions operating at this ratio level rely on internal cash flow to meet short-term cash needs, carry a reasonable level of facilities maintenance, and appear capable of managing modest unforeseen adverse financial events.
**Secondary Reserve Ratio**

The Secondary Reserve Ratio measures the financial strength of the institution by comparing non-expendable net position to total expenses. Non-expendable net position represents those assets that are generally permanently restricted or restricted for an extended period of time. This ratio provides an assessment of the significance of these net positions in relation to operating size. The ratio is important because over the long term, the net position may provide a significant stream of secondary financing for operating and plant requirements. A decreasing trend over time indicates a weakening financial condition. Overall the long term, institutions should strive to increase non-expendable net position faster than operating size. This condition will signal an improvement in the institution’s capital base and increased flexibility in its long-term financial condition.

The Secondary Reserve Ratio is calculated as follows:

\[
\text{Non-Expendable Net Position} \div \text{Total Expenses}
\]

**Capitalization Ratio**

The Capitalization Ratio measures the financial flexibility of the institution by not only looking at the current period’s return on net position, but also the accumulated return from previous periods as well. For most institutions, the ratio will simply be net position divided by total assets. A higher ratio is not necessarily preferable to a low ratio. A very high capitalization ratio implies that an institution may not be leveraging its assets effectively and might be investing too much costly equity in physical assets. Institutions with a low capitalization ratio will find themselves constrained with less ability to undertake future capital opportunities without negatively impacting credit. The higher education industry has a desirable range for this ratio of 50 percent and 85 percent. Institutions above 85 percent may find it in their best interest to consider altering their capitalization structure and leveraging their assets to potentially increase income and future financial wealth.
The revised Capitalization Ratio is calculated as follows:

\[
\frac{\text{Total Net Position + Net Pension Liability & Related Deferrals}}{\text{Total Assets}}
\]

Current Ratio

The Current Ratio is one of the most widely recognized measures of liquidity. This calculation measures short-term assets of an institution with its current liabilities. Conventional wisdom hold that this ratio should be at least 2:1...that is, for every dollar of liability coming due there should be at least two dollars of assets available to pay them. Generally, the higher the ratio the better, however there is a point where one should question the wisdom of holding significant amounts of short-term assets when a higher return could be achieved by investing these assets in longer-term investments.

The Current Ratio is calculated as follows:

\[
\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}
\]
**Days of Cash on Hand Ratio**

The Days of Cash on Hand Ratio is one of the most widely recognized measures of liquidity. This calculation measures the number of days a university is able to operate (cover its cash operating expenses) from unrestricted cash and short-term investments that can be liquidated and spent within a short period of time (30 days). Generally, the higher the ratio the better, however there is a point where one should question the wisdom of holding significant amounts of short-term assets when a higher return could be achieved by investing these assets in longer-term investments.

The Days of Cash on Hand Ratio is calculated as follows:

\[
\text{Total Cash, Cash Equivalents + Short-Term Investments} \div \text{Daily Operating Expense Average (365 days)}
\]

The Days of Cash on Hand with Unrestricted Long-term Investments Ratio is calculated as follows:

\[
\text{Total Cash, Cash Equivalents + Short-Term Investments + Unrestricted Long-term Investments} \div \text{Daily Operating Expense Average (365 days)}
\]
Measures of Resource Management, including Debt

The ratios presented in this section are fundamental to an institution trying to understand its debt position in relation to its overall financial health. *Has the institution managed debt (and all other sources of capital) strategically to advance its mission?* These ratios will also help the institution understand how analysts, as well as lenders and purchasers of debt, evaluate its ability to assume and pay debt service.

**Viability Ratio**

The Viability Ratio measures the availability of expendable net position to cover debt should the institution need to settle its obligations as of the balance sheet date. There is no absolute threshold (rule of thumb) to highlight the institution’s financial viability because, in reality, long-term capital debt would not have to be paid all at once; however, trends should be developed and measured. Generally, the higher the ratio, the greater the ability to cover the long-term debt. Analysts should be aware that institutions often show a remarkable resiliency that permits them to continue long beyond what appears to be their point of financial collapse. Frequently, this means living with no margin for error and meeting severe cash flow needs by obtaining short-term loans.

The revised Viability Ratio is calculated as follows:

\[
\text{Viability Ratio} = \frac{\text{Unrestricted} + \text{Expendable Net Positions} + \text{Net Pension Liability & Related Deferrals}}{\text{Total Long-term Debt (Bonds, Notes & Capital Leases)}}
\]

![Viability Ratio Chart]

**Long-Term Liability to Unrestricted Net Position Ratio, net of GASB 68 effect**

The Long-Term Liability to Unrestricted Net Position Ratio, *net of GASB 68 effect* measures the ability of a university to cover long-term liabilities with current equity. A lower ratio indicates the institution has sufficient equity to cover long-term liabilities. This ratio adjusts for the net pension liability to provide a consistent measurement with pre-GASB 68 financial statements.

The revised Long-Term Liability to Unrestricted Net Position Ratio is calculated as follows:
Debt Burden Ratio

The Debt Burden Ratio examines the institution’s dependence on borrowed funds as a source of financing its mission and the relative cost of borrowing to overall expenditures. Debt service includes both interest and principal payments. The higher education industry has viewed an upper threshold for this ratio at 7 percent, meaning that current principal and interest expense should not represent more than 7 percent of total expenditures; however, a number of institutions operate effectively with a higher ratio, while others could find this ratio unacceptable. A higher debt service burden indicates that the institution has less flexibility to manage the remaining portion of the budget. Institutions with greater budgetary flexibility will find that they are comfortable with a higher ratio. It is important to note that institutions that exceed 7 percent will not necessarily be excluded from obtaining additional external funding, however it is clear that institutions above this threshold will face greater scrutiny from rating agencies and lenders.

The Debt Burden Ratio is calculated as follows:

Annual Principal and Interest Payments (debt service) 
(Operating expenses + nonoperating expenses) – Depreciation expense + Principal payments

Debt Burden Ratio
FY 2016
(target < 7.0%)
**Debt Coverage Ratio**

The Debt Coverage Ratio measures the excess of income over adjusted expenses available to cover annual debt service payments. This ratio gives the analyst a level of comfort that the institution has a net revenue stream available to meet its debt burden should economic conditions change. A high ratio is considered advantageous, while a low ratio or declining trend gives reason for concern regarding the institution’s ability to sustain its operations, especially in the face of future budgetary challenges. Due to the inherent volatility in the change in net position from year to year, many institutions find that it may be helpful to smooth the trend by examining a rolling two-year average for the ratio and establishing a target based on that measure.

The Debt Coverage Ratio is calculated as follows:

\[
\frac{\text{Net operating income/(loss)} + \text{Net nonoperating revenue/(expense)} + \text{Deprecation expense} + \text{Interest expense paid on Capital Debt}}{\text{Annual Principal and Interest Payments (debt service)}}
\]

---

**Debt Coverage Ratio**

FY 2016

(target = 1.2x - 1.4x)

<table>
<thead>
<tr>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMCC</th>
<th>EO</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.98</td>
<td>-2.99</td>
<td>-0.01</td>
<td>-1.90</td>
<td>2.19</td>
<td>6.29</td>
<td>0.78</td>
<td>2.23</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>
Measures of Asset Performance and Management

All assets that are under the stewardship of a board and senior management need to demonstrate some financial return over a long period of time or the institution will be consumed by deficits that draw resources away from other activities. The ratios that follow aid an institution in understanding whether historical investments are obtaining returns that can be reinvested in other programs and/or facilities. Specifically these ratios will help answer the following questions:

- Is the institution better off financially at the end of the year than at the beginning of the year?
- Is the institution sufficiently invested in financial assets to continue expanding its equity?
- Is the institution making appropriate investments and maximizing its return for appropriate levels of risk?
- Is the institution adequately reinvesting and renewing its physical assets?

Return on Total Net Position Ratio

The Return on Total Net Position Ratio determines whether an institution is financially better off than in previous years by measuring total economic return. This ratio furnishes a broad measure of the change in an institution’s total wealth over a single year. A decline in this ratio may be appropriate and even warranted if it reflects a strategy to better fulfill the institution’s mission. On the other hand, an improving trend indicates that the institution is increasing its net position and is likely to be able to set aside financial resources to strengthen its future financial flexibility.

The revised Return on Net Position Ratio is calculated as follows:

\[
\text{Change in Total Net Position} + \text{Change in Net Pension Liability & Related Deferrals} \\
\text{Total Net Position} + \text{Net Pension Liability & Related Deferrals (beginning of year)}
\]

Institutions should establish a real rate of return target in the range of approximately 3 to 4 percent. However if an institution’s strategic plan calls for activities that will consume substantial resources, such as program expansion, a high return on net position may be required in order to maintain a properly capitalized institution. Regardless, because this ratio could be affected by a number of volatile items, it is important that the institution understand the causes of the change in the ratio from year to year.

![Return on Net Position FY 2016](image)

(target = 3.0% - 4.0%)

ASU  DSU  JSU  MSU  MUW  MVSU  UM  USM  UMMC  EO

1.53%  13.08%  7.98%  5.98%  9.61%  3.69%  8.16%  -0.42%  -10.00%  -25.48%
Return on Expendable Net Position Ratio

The Return on Expendable Net Position Ratio determines whether an institution is financially better off than in previous years by measuring total economic return. This ratio should be evaluated as a subset to the Return on Total Net Position Ratio. The difference between the two ratios is the removal of the Restricted Non-expendable and Net Investment in Capital Assets components leaving only the expendable components intact (restricted-expendable and unrestricted net positions). This modified approach allows the institution to ensure that resources are not solely accruing on the basis of nonexpendable or capital (plant) activities. This ratio furnishes a broad measure of the change in an institution’s total wealth over a single year. A decline in this ratio may be appropriate and even warranted if it reflects a strategy to better fulfill the institution’s mission. On the other hand, an improving trend indicates that the institution is increasing its net position and is likely to be able to set aside financial resources to strengthen its future financial flexibility.

The revised Return on Expendable Net Position Ratio is calculated as follows:

\[
\frac{\text{Change in Expendable Net Position} + \text{Change in Net Pension Liability & Related Deferrals}}{\text{Expendable Net Position} + \text{Net Pension Liability & Related Deferrals} \text{ (beginning of year)}}
\]

There is no established industry target for this modified ratio. However if an institution’s strategic plan calls for activities that will consume substantial resources, such as program expansion, a high return on net position may be required in order to maintain a properly capitalized institution.

Composition of Equity Ratio

The Composition of Equity Ratio provides useful insights into the allocation of equity among different types of assets, primarily financial and physical assets. Together with the Capitalization Ratio, these ratios help an analyst understand the institution’s flexibility and whether its asset structure is in equilibrium. If equity is weighted heavily in property, plant, and equipment, the institution has less ability to allocate internal funds to new initiatives. If equity is comprised primarily of physical assets, the opportunity to increase expendable wealth will be reduced if those physical assets do not directly generate a return on invested equity. Therefore, the Composition of Equity Ratio provides an indication of the equilibrium of investments for an institution because it recognizes the tradeoffs between investment for the current generation (physical assets) and investment for future generations (financial
Stronger institutions typically exhibit a ratio greater than 1, which would indicate financial resources have been retained within the institution at a rate exceeding the need for capital investment.

The Composition of Equity Ratio is calculated as follows:

\[
\frac{\text{Total Financial Assets}}{\text{Total Physical Assets}}
\]

### Composition of Equity Ratio

**FY 2016 (target = 1.00x)**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>0.50</td>
</tr>
<tr>
<td>DSU</td>
<td>0.16</td>
</tr>
<tr>
<td>JSU</td>
<td>0.28</td>
</tr>
<tr>
<td>MSU</td>
<td>0.36</td>
</tr>
<tr>
<td>MUW</td>
<td>0.26</td>
</tr>
<tr>
<td>MVMSU</td>
<td>0.21</td>
</tr>
<tr>
<td>UM</td>
<td>0.55</td>
</tr>
<tr>
<td>USM</td>
<td>0.26</td>
</tr>
<tr>
<td>UMMC</td>
<td>1.27</td>
</tr>
<tr>
<td>EO</td>
<td>23.19</td>
</tr>
</tbody>
</table>

### Financial Net Position Ratio and Physical Net Investment in Capital Assets Ratio

The Financial Net Position Ratio and its counterpart, the Physical Net Investment in Capital Assets Ratio, provide useful insight into the allocation of equity between financial and physical net assets. Together, these ratios help an analyst understand the institution’s flexibility and whether its asset and net position structures are in equilibrium. If the equity is weighted heavily in property, plant and equipment, the institution may have less ability to allocate internal funds to new initiatives. If equity is comprised primarily of physical assets, the institution may have reduced opportunities to increase expendable wealth because physical assets generally do not directly generate a return on invested equity. This may place the institution at a competitive disadvantage versus its peers.

The revised Financial Net Position Ratio is calculated as follows:

\[
\frac{\text{Total Net Position} - \text{Net Investment in Capital Assets} + \text{Net Pension Liability & Related Deferrals}}{\text{Total Net Position} + \text{Net Pension Liability & Related Deferrals}}
\]
The revised Physical Net Investment in Capital Assets Ratio is calculated as follows:

\[
\text{Net Investment in Capital Assets} = \frac{\text{Total Net Position} + \text{Net Pension Liability & Related Deferrals}}{\text{Physical Asset Reinvestment Ratio}}
\]

The Physical Asset Reinvestment Ratio calculates the extent capital renewal is occurring compared with physical asset usage represented as depreciation expense. A ratio above 1:1 indicates an institution’s increasing investment in physical assets, whereas a lower ratio potentially indicates an under-investment in campus facilities. This ratio should be evaluated on a multiyear basis. Comparison of this ratio is instructive only across institutions with similar programs and operating sizes. A ratio substantially less than 1:1 may indicate that the institution is consistently under-investing in plant and increasing its deferred maintenance obligation. Substantial ratios above 1:1 indicate a continued growth in facilities.

The Physical Asset Reinvestment Ratio is calculated as follows:
The Age of Facilities Ratio measures the average age of total plant facilities. It accomplishes this by measuring the relationship between current depreciation to total accumulated depreciation. This ratio is important because it provides a rough sense of the age of the facilities and the potential need for considerable future resources to be invested in plant to cover deferred maintenance. A low ratio is better, since it indicates that an institution has made recent investments in its plant facilities. A high ratio signifies that an institution has deferred reinvestment in its plant and is likely to require a significant expenditure for plant facilities in the near future. An acceptable ratio for this measure is 10 years or less for research institutions and 14 years for predominantly undergraduate liberal arts institutions. This ratio does not provide a sense of whether the institution will be able to afford the necessary improvements.

The Age of Facilities Ratio is calculated as follows:

\[
\text{Age of Facilities Ratio} = \frac{\text{Accumulated Depreciation}}{\text{Depreciation Expense}}
\]
Measures of Operating Performance

All institutions must over time operate in either a surplus or at least a break-even position. A prime reason for this is because operations are one of the sources of resources for reinvestment in institutional initiatives. Issues become critical for institutions when deficits are unplanned, unmanaged and occurring in core existing operations. The ratios in this section explore the different aspects of an institution’s operations. It is important that analysis be put in the perspective of the institution’s mission.

Net Operating Revenues Ratio

The Net Operating Revenues Ratio measures financial performance by comparing whether the institution completed the fiscal year with an annual operating surplus or deficit. Generally speaking, the larger the surplus, the stronger the institution’s financial performance as a result of the year’s activities. A negative ratio indicates a loss for the year. A small deficit during a particular year may be relatively unimportant if the institution is financially strong, is aware of the causes of the deficit and has an active plan in place that cures the deficit. Large deficits are almost always a bad sign, particularly if management has not identified initiatives to reverse the shortfall. A pattern of large deficits can quickly sap an institution’s financial strength to the point where it may have to make major adjustments to programs.

The Net Operating Revenues Ratio is calculated as follows:

\[
\frac{\text{Operating income (loss) + net nonoperating revenues (expenses)}}{\text{Operating revenues + nonoperating revenues}}
\]

The Net Operating Revenue Ratio target should be at least 2 to 4 percent over an extended period of time, although the target will likely vary from year to year. A key for institutions establishing a benchmark for this ratio would first be the anticipated institutional growth in total expenses.
**Contribution and Demand Ratios**

Using ratios referred to as Contribution and Demand ratios can also result in further analysis of revenues by source and expense by type. Contribution and Demand ratios address the causes of why an institution’s overall financial ratios have behaved in the manner observed. Contribution ratios measure the extent to which each type of revenue is consumed by operating and non-operating expense. Demand ratios measure the extent to which each type of expense is consuming operating revenues. Since public institutions may report expenses by either natural classification or by function, demand ratios may be calculated either way.

**Gross Tuition Contribution Ratio**

The Gross Tuition Contribution Ratio provides the reader further analysis about an institution’s revenues by source. Heavily tuition-dependent institutions (that is, institutions that receive more than 60 percent of this revenue from tuition) are particularly sensitive to changes in enrollment patterns. These revenues are measured against an institution’s total operating and non-operating expenses.

The Gross Tuition Contribution Ratio is calculated as follows:

\[
\text{Gross Tuition Contribution Ratio} = \frac{\text{Gross Tuition revenue}}{\text{Operating expenses + Nonoperating expenses}}
\]

**Gross Tuition Contribution per Student FTE Ratio**

The Gross Tuition Contribution per Student FTE Ratio allows the reader to measure the average amount of accrual tuition revenue on a per student full-time equivalency basis. An increase in this ratio is a positive occurrence for an institution.

The Gross Tuition Contribution per Student FTE Ratio is calculated as follows:
State Appropriation Contribution Ratio

The State Appropriation Contribution Ratio provides the reader further analysis about an institution’s revenue by source. Heavily state appropriation dependent institutions (that is, institutions that receive a majority of their revenues from state appropriated sources) are particularly sensitive to changes in economic conditions within state government. State appropriated revenues for capital purposes are not included in this calculation, as these revenues are usually not directed towards the institution’s general operations. These revenues are measured against an institution’s total operating and non-operating expenses.

The State Appropriation Contribution Ratio is calculated as follows:

\[
\text{State Appropriation revenue} \div (\text{Operating expenses} + \text{Nonoperating expenses})
\]
Gifts, Grants and Contracts Contribution Ratio

The Gifts, Grants and Contracts Contribution Ratio provides the reader further analysis about an institution’s revenue by source. Heavily gift, grants and contracts dependent institutions (that is, institutions that receive the majority of revenues from grants and contract sources) are particularly sensitive to changes in economic conditions within government (federal, state, local, etc…) and private corporate sectors. Gifts, grants and contracts revenue restricted for capital purposes are not included in this calculation, as these revenues are usually not directed toward the institution’s general operations. These revenues are measured against an institution’s total operating and non-operating expenses.

The Gift, Grants and Contracts Contribution Ratio is calculated as follows:

\[
\text{Gifts, Grants and Contracts revenue} \div (\text{Operating expenses} + \text{Nonoperating expenses})
\]

Auxiliary Enterprises Contribution Ratio

The Auxiliary Enterprises Contribution Ratio provides the reader further analysis about an institution’s revenue by source. Auxiliary enterprises typically exist to furnish goods or services to students, faculty, or staff. They are generally self-sustaining by nature, but sometimes receive smaller levels of supplemental support from general campus operations. Auxiliary enterprises receive most of its revenue from user fees, or in the case of large intercollegiate athletic programs, from conference affiliation shares, television and radio broadcasting rights, etc…. Examples of common campus auxiliaries would include student housing, dining services, bookstores and some larger intercollegiate athletic programs. These revenues are measured against an institution’s total operating and non-operating expenses.

The Auxiliary Enterprise Contribution Ratio is calculated as follows:
Hospital Operations Contribution Ratio

The Hospital Operations Contribution Ratio provides the reader further analysis about only the University of Mississippi Medical Center’s revenue by source. Hospital operation revenues are presented as Patient Care revenues in the GASB financial statements. UMMC’s hospital revenues are received from patients, third-party payers and others for services rendered. These revenues are measured against an institution’s total operating and non-operating expenses.

The Hospital Operations Contribution Ratio is calculated as follows:

\[
\text{Hospital Operations Contribution Ratio} = \frac{\text{Patient Care revenues}}{\text{Operating expenses + Nonoperating expenses}}
\]
**Salaries, Wages and Fringe Benefits Demand Ratio**

The Salaries, Wages and Fringe Benefits Demand Ratio provides the reader further analysis about an institution’s expense by natural classification. Expenditures at most public institutions of higher learning are heavily concentrated in the area of salaries, wages and fringe benefits. Therefore these institutions are particularly sensitive to changes in economic conditions within government (federal, state, local, etc...) and private corporate sectors. When economic conditions drive downward an institution’s revenue support, budget decisions invariably have to consider the effect on personnel costs. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Salaries, Wages and Fringe Benefits Demand Ratio is calculated as follows:

\[
\text{Salaries, Wages and Fringe Benefits expenses} \over \text{Operating revenues + Nonoperating revenues}
\]

**Payments to Suppliers Demand Ratio**

The Payments to Suppliers Demand Ratio provides the reader further analysis about an institution’s expense by natural classification. On the GASB financial schedules, these payments are classified as contractual services and commodities. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Payments to Suppliers Demand Ratio is calculated as follows:
The Instruction Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. Instructional costs represent the backbone for an institution of higher learning. This category includes all activities associated with the instructional function. Instructional costs are considered core operations in the higher education environment, along with research and public service. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Instruction Demand Ratio is calculated as follows:

\[
\frac{\text{Instruction expense}}{\text{Operating revenues + Nonoperating revenues}}
\]

### Payments to Suppliers Demand Ratio

**FY 2016**

<table>
<thead>
<tr>
<th>Institution</th>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMMC</th>
<th>EO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment %</td>
<td>19.65%</td>
<td>24.91%</td>
<td>28.48%</td>
<td>16.57%</td>
<td>21.67%</td>
<td>23.73%</td>
<td>17.82%</td>
<td>21.93%</td>
<td>31.14%</td>
<td>29.38%</td>
</tr>
</tbody>
</table>

### Instruction Demand Ratio

**FY 2016**

<table>
<thead>
<tr>
<th>Institution</th>
<th>ASU</th>
<th>DSU</th>
<th>JSU</th>
<th>MSU</th>
<th>MUW</th>
<th>MVSU</th>
<th>UM</th>
<th>USM</th>
<th>UMMC</th>
<th>EO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment %</td>
<td>24.26%</td>
<td>33.51%</td>
<td>35.09%</td>
<td>18.97%</td>
<td>27.99%</td>
<td>31.47%</td>
<td>24.22%</td>
<td>30.27%</td>
<td>12.55%</td>
<td></td>
</tr>
</tbody>
</table>
**Research Demand Ratio**

The Research Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. These costs include activities organized to produce research. Whether commissioned by an agency external to the institution or separately budgeted by an organizational unit within the institution. Research costs are considered core operations in the higher education environment, along with instruction and public service. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Research Demand Ratio is calculated as follows:

\[
\text{Research Demand Ratio} = \frac{\text{Research expense}}{\text{Operating revenues} + \text{Nonoperating revenues}}
\]

**Public Service Demand Ratio**

The Public Service Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. These costs include activities established primarily to provide non-instructional services beneficial to individuals and groups external to the institution, such as community programs and cooperative extension services. Public Service costs are considered core operations in the higher education environment, along with instruction and research. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Public Service Demand Ratio is calculated as follows:
Public Service expense
Operating revenues + Nonoperating revenues

Public Service Demand Ratio
FY 2016

Institutional Support Demand Ratio

The Institutional Support Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. These costs include activities aligned with central executive-level activities concerned with the management and long-range planning of the entire institution. Back office operations, such as general accounting and HR functions are also reported within this function. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Institutional Support Demand Ratio is calculated as follows:

Institutional Support expense
Operating revenues + Nonoperating revenues

Institutional Support Demand Ratio
FY 2016
Educational Support Demand Ratio

The Educational Support Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. Included in the Educational Support ratio are costs associated with the Academic Support and Student Service functions. Academic Support costs include activities that primarily support the institution’s core mission functions—instruction, research and public service. It includes the libraries, academic administrations (Deans’ Offices) and often the ITS functions. The Student Service functional costs includes those of the offices of admissions and registrar, the financial aid office, and departmental costs associated with developing student’s emotional and physical well-being (intramurals, student government, career center, etc…). For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Educational Support Demand Ratio is calculated as follows:

\[
\frac{\text{Academic Support expense + Student Service expense}}{\text{Operating revenues + Nonoperating revenues}}
\]

Operations and Maintenance Demand Ratio*

The Operations and Maintenance Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. Operations and Maintenance (O&M) costs include all costs associated with the operation and maintenance of the physical plant. Generally this includes utility costs, fire and security costs and grounds and facility maintenance costs. O&M costs associated with the Auxiliary enterprises and Hospital are reported separately within those unique functional areas and are not included in this ratio. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

* This ratio is also known as the Facilities Maintenance Ratio.
The Operations and Maintenance Demand Ratio is calculated as follows:

$$\frac{\text{Operations and Maintenance expenses}}{\text{Operating revenues + Nonoperating revenues}}$$

**Student Aid Demand Ratio**

The Student Aid Demand Ratio provides the reader further analysis about an institution’s expense by functional classification. In the GASB financial statements, these operating expenses are presented in the notes by functional classification. The Student Aid function includes expenditures for scholarships, fellowships and waivers in the form of financial aid to students selected by the institution and financed from both institutional and external sources. This function would include federal grant aid such as Pell awards and state aid such as MTAGs and MESGs. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Student Aid Demand Ratio is calculated as follows:

$$\frac{\text{Student Aid expense}}{\text{Operating revenues + Nonoperating revenues}}$$
**Auxiliary Enterprises Demand Ratio**

The Auxiliary Enterprises Demand Ratio provides the reader further analysis about an institution’s expense by function classification. Auxiliary enterprises typically exist to furnish goods or services to students, faculty, or staff. They are generally self-sustaining by nature, but sometimes receive smaller levels of supplemental support from general campus operations. Auxiliary enterprises receive most of their funding from user fees, or in the case of large intercollegiate athletic programs, from conference affiliation shares, television and radio broadcasting rights, etc. Examples of common campus auxiliaries would include student housing, dining services, bookstores and some larger intercollegiate athletic programs. For ratio purposes these expenses are measured against an institution’s total operating and non-operating revenues.

The Auxiliary Enterprise Demand Ratio is calculated as follows:

\[
\text{Auxiliary Enterprise expense} \quad \frac{\text{Operating revenues} + \text{Nonoperating revenues}}{}
\]

**Hospital Operations Demand Ratio**

The Hospital Operations Demand Ratio provides the reader further analysis about (only) the University of Mississippi Medical Center’s expenses by functional classification. These expenses are measured against the Medical Center’s total operating and non-operating revenues.
The Hospital Operations Demand Ratio is calculated as follows:

*Hospital expenses*  
Operating revenues + Nonoperating revenues

![Hospital Operations Demand Ratio](chart)

**Hospital Operations Demand Ratio**  
**FY 2016**

- 80.00%
- 60.00%
- 40.00%
- 20.00%
- 0.00%

**UMMC**

- 67.93%