MONTGOMERY COLLEGE

Core Financial Ratios and Composite Financial Index

FY12 to FY16

INTRODUCTION:

Senior leadership and the board of trustees must be able to understand and interpret financial information in order to carry out their planning, evaluating and controlling responsibilities. Financial and nonfinancial analysis is essential to understanding the College's performance in accomplishing its mission. Well managed institutions use mission to drive success and financial metrics to determine affordability. Measuring the overall financial health of the College is an essential first step when assessing the impact of transformation on the College, and serves as a gateway to other high level questions:

1) Are resources sufficient and flexible enough to support the mission?
2) Do operating results indicate the College is living within available resources?
3) Does financial asset performance support the strategic direction?
4) Is debt managed strategically to advance the mission of the College?

To get a true picture of the College's finances, we must look at the audited financial statements, which represent the actual revenues and expenses in a given period. In providing an analysis of the financial statements it is important to look at changes from year to year for a three to five year period. Because of the complexities of financial reporting, it is appropriate that a conceptual framework be provided that will assist in assessing the financial condition and operating performance of the College. One of the best ways to look at financial statements over time is through the use of ratio analysis.

The financial health of the College can be evaluated through the Composite Financial Index (CFI) conceptual framework which provides an easily understood assessment of the College's financial performance that can be tracked over time and benchmarked against similar institutions. The CFI provides a framework to help the College achieve its goals by:

- Quantifying the status, sources and uses of resources;
- Assessing the College's ability to repay current and future debt;
- Gauging institutional performance and functional effectiveness;
- Identifying financial anomalies and focusing attention on matters that should be of concern to the College; and
- Explaining relative liquidity, financial viability and leverage attributes.

Ratios referenced in the below charts are commonly used by external agencies to measure the health of the College. External agencies include, but are not limited to, the U.S. Department of Education (DOE), the Middle States Commission on Higher Education (MSCHE), and bond rating agencies.

COMPOSITE FINANCIAL INDEX

The Composite Financial Index (CFI, a proprietary KPMG/Prager, McCarthy & Sealy measure of financial performance) has been calculated to provide one metric to more efficiently analyze the financial health of the College. The CFI is often used to address four key questions:

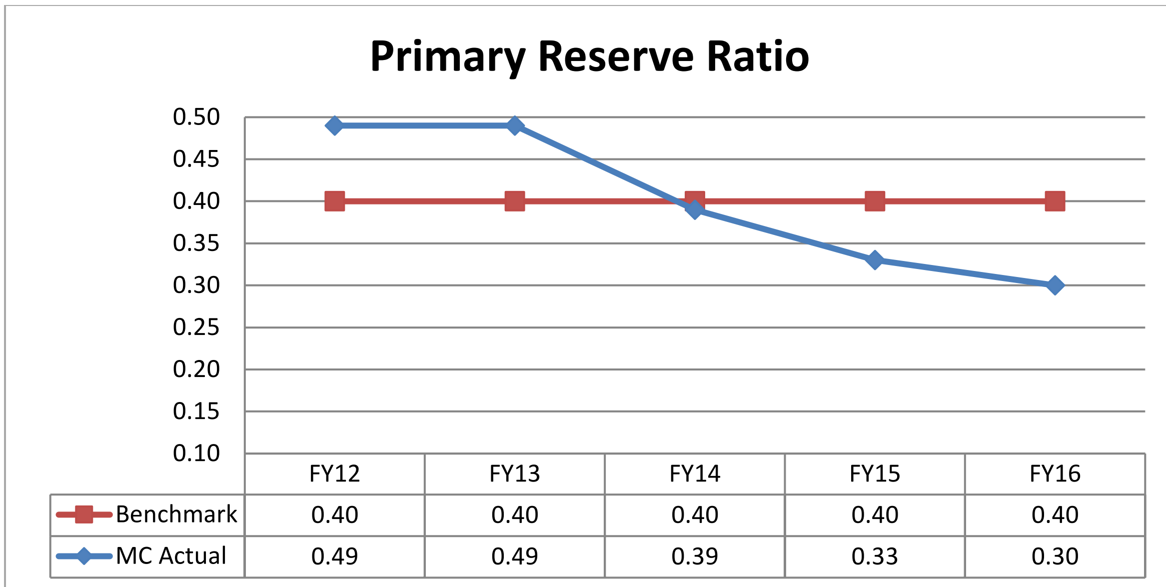
- Are resources sufficient and flexible enough to support the College's mission? **Primary Reserve Ratio**
- Are resources, including debt, managed strategically to advance the College's mission? **Net Operating Income Ratio**
- Does asset performance and management support the strategic direction? **Return on Net Position**
- Do operating results indicate the institution is living within available resources? **Viability Ratio**

These key performance metric ratios are used to drive mission and assess performance. These ratios represent measurement of key components in relation to institutional risk. The CFI is a combination of the above four core ratios to produce a single measurement of financial performance. The CFI is a more balanced view of the College's finances since weakness in one measure can be offset by strength in another. Additionally, measuring the index over time provides a glimpse of the progress the College is making toward achieving financial goals. CFI can be too high if resources are not being utilized to fulfill the mission of the College.

Four Core Ratios:

Primary Reserve Ratio – This ratio measures financial strength and flexibility by comparing expendable net position to total expenses. This measure answers the question, A "How long can the College survive without additional resources being generated by operating revenues". This ratio is analyzed to measure:

- The sufficiency and flexibility of resources;
- The comparison of expendable net position to total expenses (surplus/deficit); and
- The period that expenses could be covered without generating additional resources.



	FY12	FY13	FY14	FY15	FY16
Benchmark	0.40	0.40	0.40	0.40	0.40
MC Actual	0.49	0.49	0.39	0.33	0.30

The ratio is calculated by dividing expendable net position/total expenses. A ratio of 0.40 (representing about 5 months of expenses) or higher is recommended. A watch level of .133 or less (representing less than 1.5 months of expenses in ready assets) indicates a lack of sufficient resources to pursue strategic initiatives and invest in plant maintenance.

The College met or exceeded the benchmark in 3 out of the 5 years presented. Key items that can impact this ratio include principal payments on debt, use of unrestricted net position to fund capital construction projects and recurring items, operating results and total operating expenses. The receipt of capital appropriation does not impact this ratio as these revenues are used to acquire or construct capital assets and thereby increase net position invested in capital assets, net of related debt.

The College's primary reserve dropped in years FY14-FY16. Unrestricted net position, which provides the greatest flexibility for making strategic investments and transforming the College, dropped 19% in both FY14 and FY15 and 5% in FY16.

Highlights:

Items impacting the net operating revenues ratio (see page 6) also impact this ratio, as total expenses are factored into both ratios as the amount of return on operating revenues closes to net position.

FY14

- A decline in total operating revenues due to a decline in enrollment and no tuition increase.
- Increase in unrestricted expenses due to a 7% increase in total salaries which included 4 new budgeted positions.
- Budgeted increase of 75% in use of fund balance in the operating fund

FY15

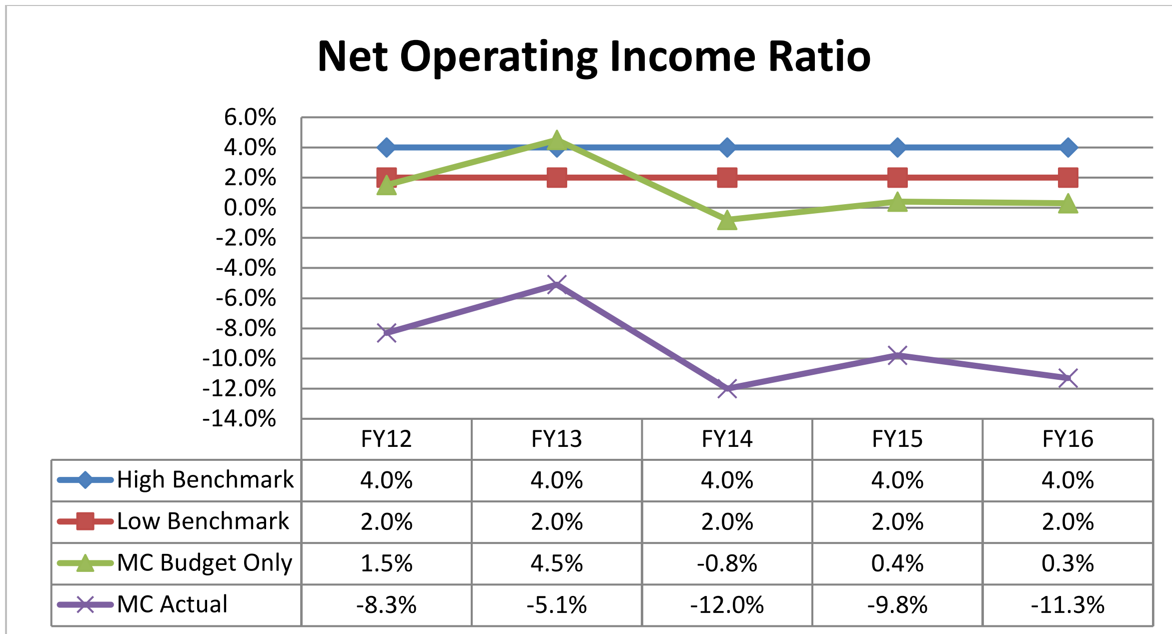
- A decrease in Auxiliary Enterprise revenues v. an increase in expenses.
- GASB 68 (Accounting and Financial Reporting for Pension) restatement effect on net position (8.3M) and long term debt (10M).
- Open Bio-Science Building (38 positions added)

FY16

- Expenses increased 6% due to salary enhancements and Title IX compliance costs
- Long term debt declined decreased 3.6% due to refunding of bonds

Net Operating Income Ratio– This ratio indicates operating surplus or deficit in a given fiscal year. This ratio is similar to a profit margin and answers the question. "Did they balance operating expenses with available revenue?" Depreciation expense is included to reflect the use of physical assets in measuring operating performance. It is important to note that this calculation includes non-budgeted items such as depreciation, pension and other post-employment benefits (OPEB) expenses (non-cash items). Calculation of the ratio without these non-budgeted items for FY12-FY6 resulted in a 1.5%, 4.5%, -0.8%, .4% and .3%, respectively. A negative ratio indicates a structural deficit. A positive margin is preferred and the recommended benchmark is 2.0% to 4.0%.

The average annual growth rate (AAGR) in revenues for FY12-FY16 was 3.9% compared to a 4.6% AAGR in expenses. Growth in expenses is outpacing growth in revenues which is why the College is not meeting the targeted benchmark. The rating agencies have noted the College's negative GAAP-based operating margin as a rating concern and in order to avoid a downgrade in rating, an incremental improvement in the operating deficit in fiscal 2016 was needed.



	FY12	FY13	FY14	FY15	FY16
High Benchmark	4.0%	4.0%	4.0%	4.0%	4.0%
Low Benchmark	2.0%	2.0%	2.0%	2.0%	2.0%
MC Budget Only	1.5%	4.5%	-0.8%	0.4%	0.3%
MC Actual	-8.3%	-5.1%	-12.0%	-9.8%	-11.3%

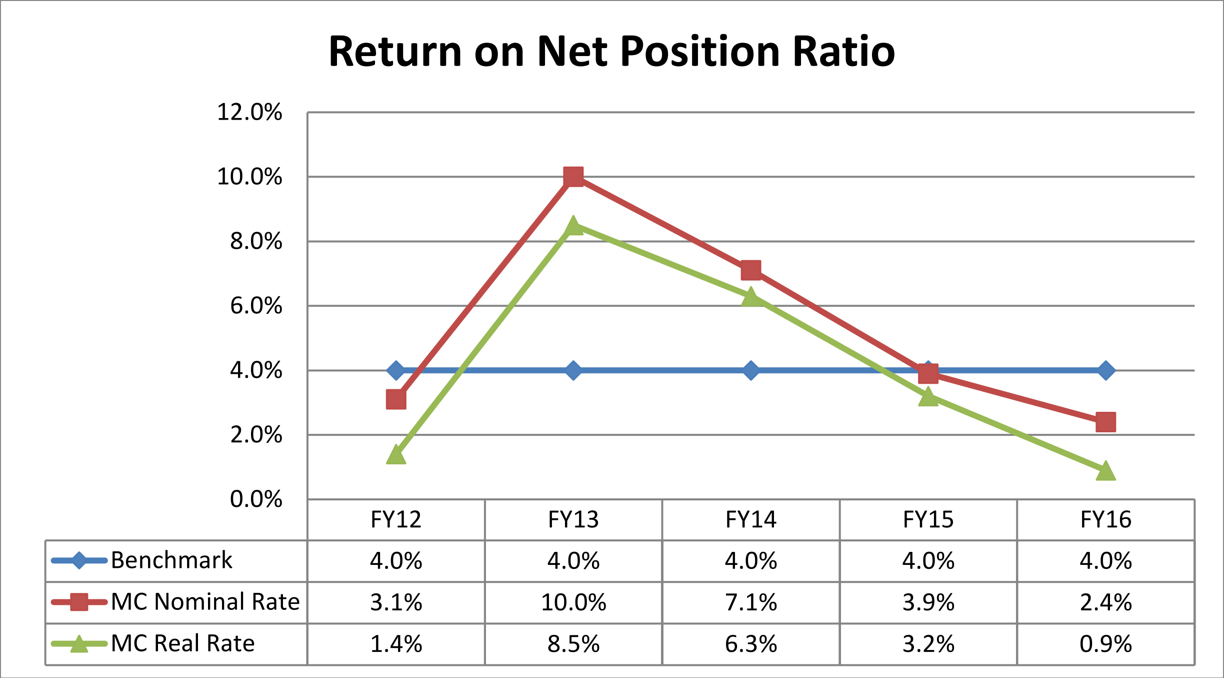
Highlights:

FY12 - Reduction in County Appropriation and increase salary expenses (unbudgeted one time bonus)
FY14 – The increase in the operating structural deficit in FY14 was due primarily to the expense increases as noted in the primary reserve ratio stated above.
FY15 – The improvement to the ratio in FY15 was the result of an 18% increase in county appropriation. The GASB 68 adjustment does not affect this calculation.
FY16 – Increase in expenditures (5.5%) is outpacing increase in revenues (4.4%). Increase in salaries and benefits, largely in academic support and instructional areas.

Return on Net Position Ratio – measures asset performance and management and is based on the level and change in total net position. This measure is similar to the return on equity ratio used in examining for-profit concerns and answers the question, “Are we better off financially than we were a year ago?”

A positive return is the standard and should be at least 2-3% above the rate of inflation. A nominal rate of return target of 3-4% is appropriate. The nominal rate of return on net position is the actual return unadjusted for inflation and the real rate of return adjusts the nominal rate for the effects of inflation. Improving the ratio indicates future financial flexibility; a decline may be a decision to sacrifice financial flexibility to achieve objectives.

Items that may impact this ratio include those that impact the net operating income ratio along with capital appropriation and caption grants, contracts and gifts.



	FY12	FY13	FY14	FY15	FY16
Benchmark	4.0%	4.0%	4.0%	4.0%	4.0%
MC Nominal Rate	3.1%	10.0%	7.1%	3.9%	2.4%
MC Real Rate	1.4%	8.5%	6.3%	3.2%	0.9%

Highlights:

FY12 – The decline in is due to a decrease of $9.6M in local and capital appropriation which fluctuates year to year and a 5% increase in expenses.

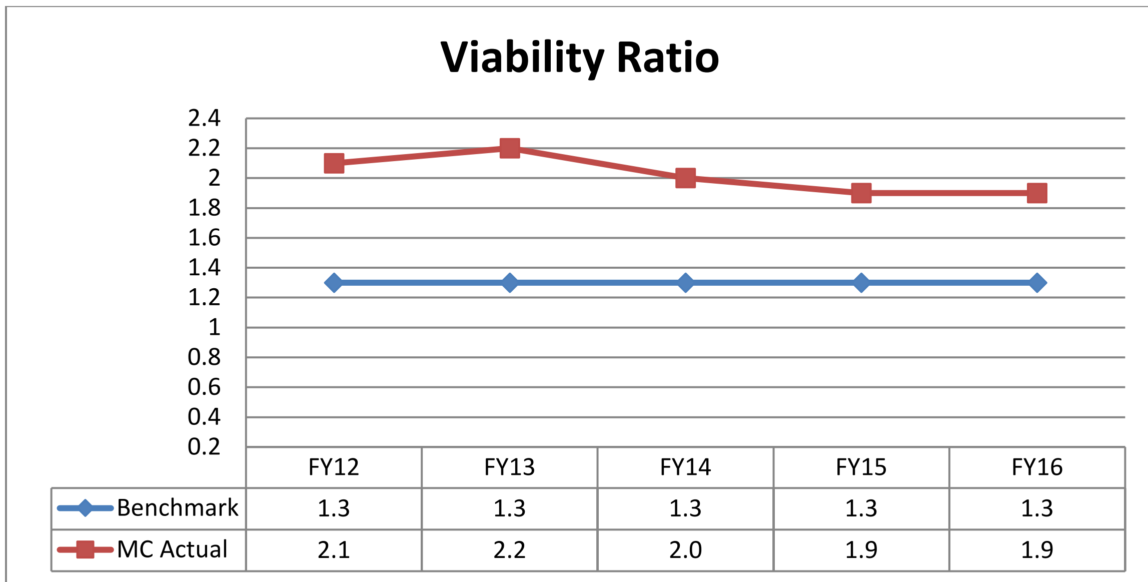
FY14 – The decline in is due to a decrease in state and capital appropriation which fluctuates year to year.

FY15 - The decline in FY15 is due to the change in net position from FY14 to FY15 in the amount of $13.6M of which $8.4M was due to the GASB 68 restatement.

FY16 – The decline in FY16 is due to a the change in net position of $12.2M of which $9.3M was due to a decline in capital appropriations.

Viability Ratio – measures the financial health of the College by comparing total expendable net position to certain noncurrent liabilities. This measure is similar to a coverage ratio used in the private sector to indicate the ability of an organization to cover its long term debt and answers the question, “How much of the College’s debt can be paid off with existing resources?” A ratio of 1:11 or greater indicates that, as of the balance sheet date, an institution has sufficient expendable net position to satisfy debt obligations. Dropping below a .31 may identify the College as a credit risk. The College is above 1.11 in all 5 years.

This ratio is not dependent on current operating results in the short term and a decreasing ratio may indicate a weakening financial condition. The same totals for expendable net position are used for this ratio and the primary reserve ratio.



	FY12	FY13	FY14	FY15	FY16
Benchmark	1.3	1.3	1.3	1.3	1.3
MC Actual	2.1	2.2	2.0	1.9	1.9

Highlights:

FY14 – A decrease in expendable net position caused the decline (see primary reserve ratio highlights).

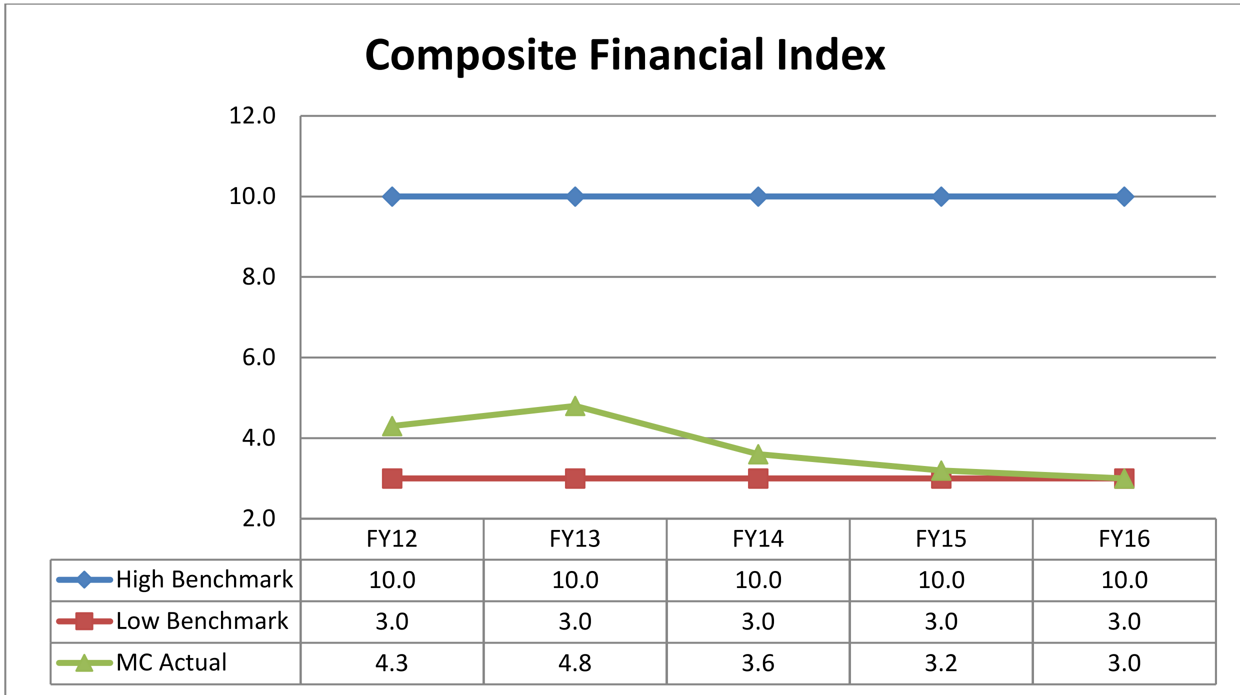
FY15 – A decrease in expendable net position caused the decline (see primary reserve ratio highlights). A further decline in the ratio was mitigated by the College's refunding of its 2005 and 2008 bond series resulting in a $3.5M decline in long term debt.

Composite Financial Index Calculation – The composite financial index is computed by combining different but complimentary measures (four ratios presented above) of fundamental elements of financial health which are weighted and scored on a common scale to create a single score. Blending these four key measures of financial health into a single number provides a more balanced view of the College's finances because a weakness in one ratio may be offset by the strength of another ratio.

The CFI is calculated by completing the following steps.

1. Compute the values of the four core ratios;
2. Convert the ratio values to strength factors along a common scale;
3. Multiply the strength factors by specific weighting factors; and
4. Total the resulting four numbers (ratio scores) to reach the single CFI score.

Using a scale from -4 to 10, the CFI approach links financial strength with accomplishment of mission. A high CFI does not indicate a successful institution, although a low CFI is most likely indicative of additional challenges. A score of 1.0 indicates very little financial health; 3, the low benchmark, represent a relatively stronger financial position; and 10 is the top of the scale. The College is above the low benchmark in all four years.



	FY12	FY13	FY14	FY15	FY16
High Benchmark	10.0	10.0	10.0	10.0	10.0
Low Benchmark	3.0	3.0	3.0	3.0	3.0
MC Actual	4.3	4.8	3.6	3.2	3.0

CFI Ranges:

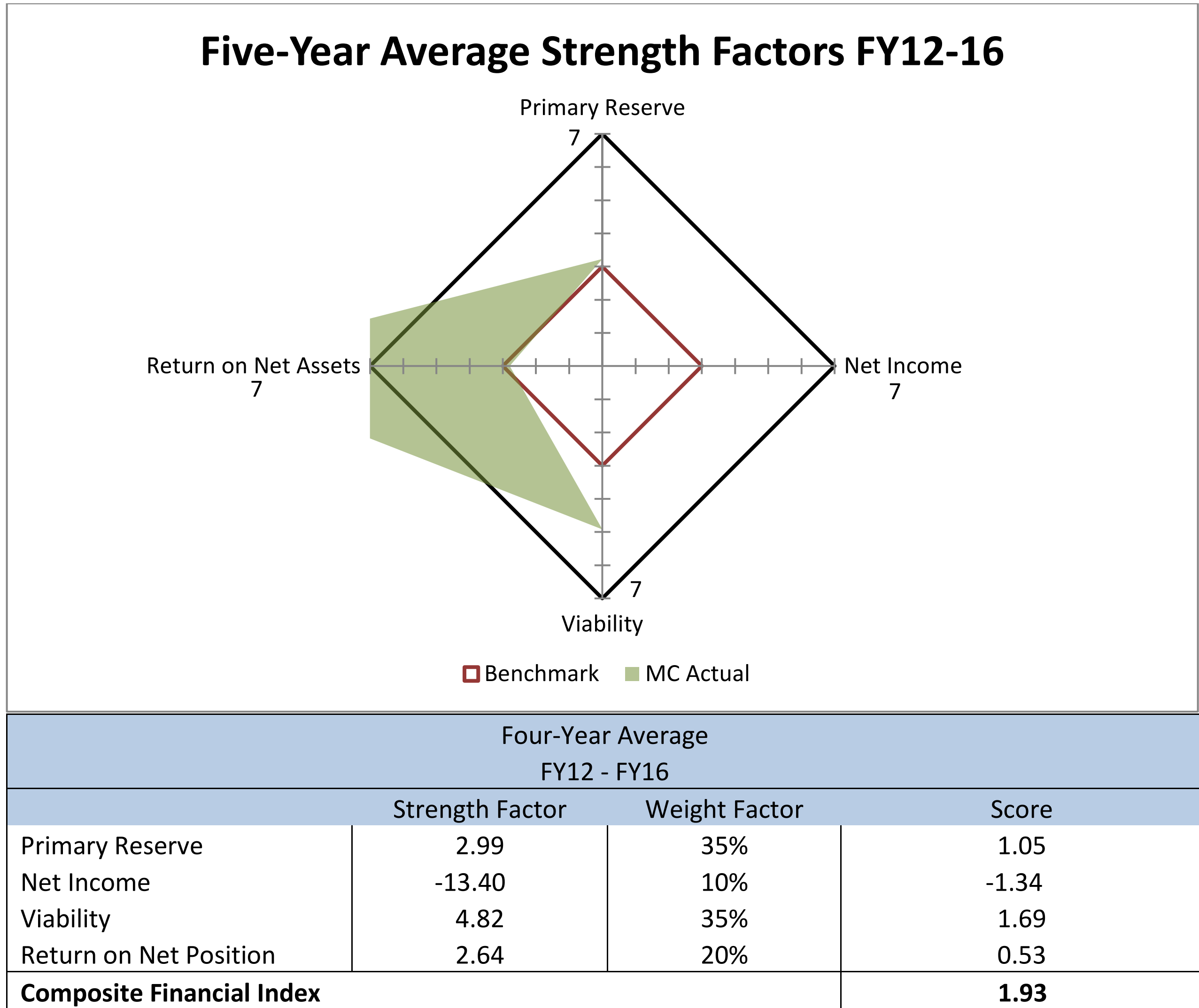
-4 to -2 – Consider whether financial exigency is appropriate
-3 to 1 - Structure programs to conserve cash; assess debt and DOE compliance
1 to 3 - Consider substantive programing adjustments, then reengineer institution
3 to 5 - Direct Resources to Allow Transformation
5 to 7 - Focus Resources to Compete in the Future
7 to 9 - Opportunities to Experiment with New Initiatives
9 to 10 - Deploy Resources to Achieve a Robust Mission

Just How Well is Montgomery College Doing?

A graph of the core ratios and financial strength of the College for a five year average involving fiscal years 2012 through 2016 is shown below. The diamond-shaped graph analyzes the College's financial status in a given year. If any of the four core ratios' strength factors (i.e., the graph's coordinates) are less than a 3.0, then the College is below the expected norm for the attribute being measured. A 3.0 level indicates adequate resources and financial vibrancy is achieved at a 5.0 level. The diamond shaped graph effectively illustrates both financial weaknesses and strengths. The College is at 3.0 or above in all areas except for net income.

Underlying variables that need to be changed in order to improve the net income ratio which is below the expected norm of 3.0 are:

- An increase in expendable net position (unrestricted fund balance/equity).
- Decrease in total expenses
- Increase in revenue sources
- Moving towards a structurally balanced budget.



Four-Year Average FY12 - FY16			
	Strength Factor	Weight Factor	Score
Primary Reserve	2.99	35%	1.05
Net Income	-13.40	10%	-1.34
Viability	4.82	35%	1.69
Return on Net Position	2.64	20%	0.53
Composite Financial Index			**1.93**

- The center point of the graphic financial profile 0; -4 is the lowest CFI range point.
- The smaller red diamond in the graph represents the low industry benchmark of 3.
- The outer diamond is 7, the high industry benchmark is 10.

- The actual strength values of the institution on a 5 year average are plotted and shaded to show how the College compares with the benchmarks.

OTHER KEY PERFORMANCE MEASURES

The bond rating agencies use certain key financial ratios to assist in assessing the College's credit strength. It is important to note that the rating agencies take into account both qualitative and quantitative factors. The below chart focuses on Moody's ratios since they separate community college ratios from other public higher education institutions, which allows for more straightforward benchmarking. The College's negative operating margin contributed to the negative outlook received by Moody's in October of 2014 and was also a concern by Fitch who emphasized that an "inability to find a sustainable solution to control expenses and show progress toward restoring operating balance could result in a rating downgrade." The College's negative operating margin contributes to the below 3.0 strength factor level for net income in the four average chart above.

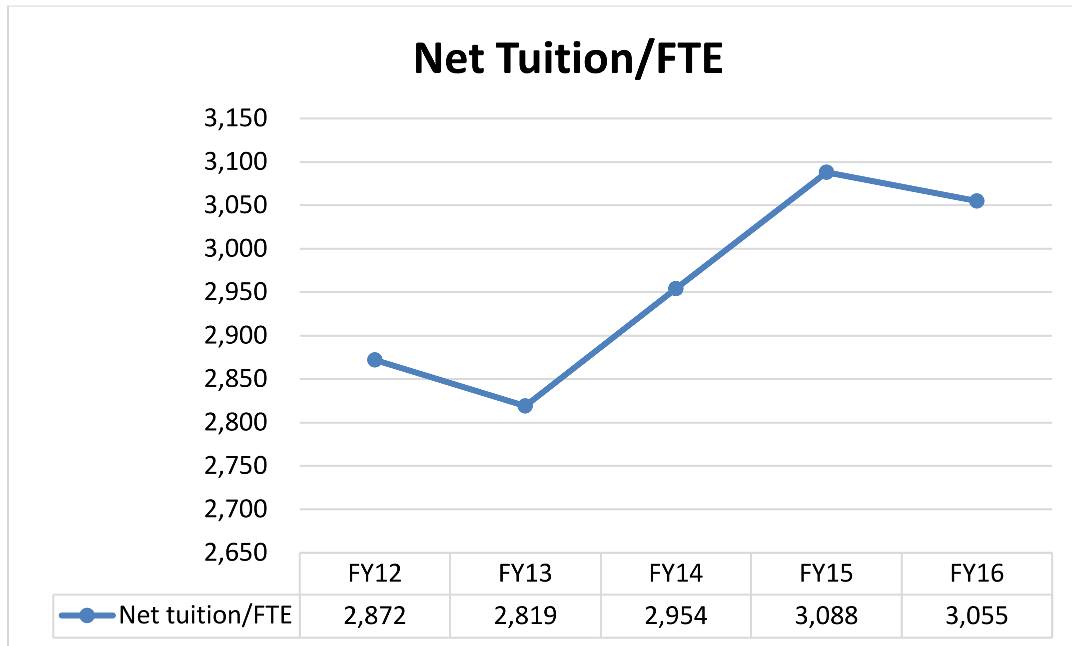
Moody's downgraded the rating of the College's bonds and revised the outlook to stable after reviewing FY16 performance due to the College's weakened operating performance and declining enrollment. An upgrade in the rating will require at least 3 years of breakeven or higher in operating performance.

MOODYS INVESTORS SERVICE

Key Ratios

	2012	2013	2014	2015	2016	Aa
KEY RATIOS						
OPERATING RATIOS						
Operating Margin %	(4.4)	(1.7)	(6.9)	(4.7)	(6.4)	>2.3
Direct Debt Service Coverage	2.2	3.3	0.4	1.0	1.1	>1.2
CAPITAL RATIOS						
Expendable Financial Resources to Debt	1.4	1.6	1.5	1.3	1.2	>1.5
BALANCE SHEET RATIOS						
Monthly Days Cash on Hand	118	122	94	91	85	114

Another key performance measure is net tuition by student FTE which measures average tuition and fees actually incurred per student. When compared to prior years, this measure reflects the College's success in retaining its annual tuition and fee increases.



	FY12	FY13	FY14	FY15	FY16
Net tuition/FTE	2,872	2,819	2,954	3,088	3,055

Unlike other community colleges in Maryland we are experiencing a decline in high school graduates in Montgomery County which is affecting enrollment. MCPS is projected to have a surge in graduates in FY19. Long term enrollment growth is expected to increase as more on-line degree programs are offered and outcomes from increased advising, retention and completion initiatives are recognized.

SUMMARY

The principles of ratio analysis can serve as a tool to measure the use of financial resources to achieve the College's mission. These measures are used to gauge institutional performance and can be used to plan activities which are necessary to improve the College's financial profile in

relation to its vision and mission. Financial ratio analysis quantifies the status, sources and uses of these resources, and the College's ability to repay current and future debt.

As indicated in the CFI scores above, the College is at or above 3 in all five years reported which indicates that the College is in a good financial position. Improvement to the net income ratio, which is below the benchmark, will improve the average strength factor for the College and will minimize the risk of negative outlook by the rating agencies. The College is committed to improving the net income ratio through the following strategic initiatives to enhance revenues and reduce expenditures.

- Creating efficiencies through business process redesign and the academic master plan redesign
- Continued outsourcing;
- Moving IT systems to the Cloud to reduce costs and create efficiencies;
- Rightsizing the College to reduce salary & benefit expenses, together with creating a sustainable compensation model to attract and develop employees,
- Growing enrollment revenues through student scorecard initiative (retention, completion, education pathways);
- Limit utilization of lapse to fund recurring items;
- Focus on creating a structurally balance budget;
- Improving faculty/student ratio;
- Creation of the Blue Ribbon Task Force on Spending for Student Success; and
- Increasing on-line degree programs

The above ratios focus only on the financial aspects of the College and must be blended with key performance indicators in other areas such as academics, infrastructure and student and faculty satisfaction to understand a more complete measure of Montgomery College's strength. The challenge of remaining flexible to meet the needs of business and industry while providing quality services to our students outlines the multi-faceted mission of the College.

Apendix A: Definitions

Composite Financial Index (CFI) – measures the overall health of an institution by combining four ratios into one metric. The four core ratios include return on net position, operating margin, primary reserve, and viability ratio. The CFI is computed using a four-step methodology:

1. Computing the values of the core ratios
2. Calculating strength factors by dividing the core ratios by threshold values
3. Multiplying the factors by specific weights
4. Totaling the resulting scores to obtain the Composite Financial Index

Core Ratio		Value		Strength Factor	Weight	Score
Return on Net Position	/	0.02	=	Factor	X	20% = Score
Operating Margin	/	0.007	=	Factor	X	10% = Score
Primary Reserve	/	0.133	=	Factor	X	35% = Score
Viability Ratio	/	0.417	=	Factor	X	35% = Score

Composite Financial Index = Total Score

The threshold for the CFI was established by considering the original work conducted by KPMG in creating the index and industry practice.

Net Income Operating Margin- indicates an operating surplus or deficit in the given fiscal year. This ratio is similar to a profit margin and answers the question, “Did they balance operating expenses with available revenue?” Depreciation expense is included to reflect the use of physical assets in measuring operating performance.

Total Operating Income (loss) plus Net Non-Operating Revenues (Expenses)/Operating Revenues plus Non-Operating Revenues

Primary Reserve Ratio – measures financial strength and flexibility by comparing expendable net position to total expense. This measure answers the question, “How long can the institution survive without additional net position generated by operating revenue?”

Total expendable net position* / Total Expenses

*Excluding net position restricted for capital.

Return on Net Position - measures total economic return during the fiscal year. This measure is similar to the return on equity ratio used in examining for – profit concerns and answers the question, “Are they better off financially than they were a year ago?”

Change in net position / Total net position (beginning of year)

Viability Ratio – measures the financial health of the institution by comparing total expendable net position to total noncurrent liabilities. This ratio is similar to a coverage ratio used in the private sector to indicate the ability of an organization to cover its long term debt and answers the question, “How much of their debt can the institution pay off with existing resources?”

Expendable Net Position*/Long-Term Debt

*Excluding net position restricted for capital investments.

Appendix B

Bond Rating Agencies

The largest three rating agencies for rating bonds are Fitch, Moody's and S&P. They are known as the Big Three credit rating agencies. The College is currently rated by Fitch and Moody's. Fitch Ratings is an international credit rating agency based out of New York City and London. The company's ratings are used as a guide to investors as to which investment is most likely going to yield a return. Moody's headquarters is in New York City and they provide international financial research and ratings on bonds for commercial and government entities.

The three rating agencies each have their own strengths as they relate to higher education. Moody's and S&P rate more schools than does Fitch, and all three differ in how they analyze the information they request. The financial bars a college must clear to meet investment-grade standards will differ depending on the agency. For example, Moody's applies separate sets of financial medians to public and private schools and recently updated its methodology to put more emphasis on management and governance. Fitch has standardized procedures for the preparation of ratings for schools. An example of the process would be the assignment of model-based quantitative analysis to an individual school and how it relates to similar schools.