Submitted by: John L. Davis, Vice President of Finance and Facilities Management

# Debt Briefing Report
# Informational

In June 2004, the Administration presented an overview of the university's debt profile to the Board of Governors. At that time, the Board indicated its interest in receiving future updates on the university's financial profile. The purpose of this report is to summarize the University's present debt position, and to provide insight into its financial capability for issuing additional debt and the impact of issuing additional debt. One of the primary ways to assess an institution's debt profile and credit worthiness is to compare its critical financial and related operating statistics to those of other universities, including some considered to be peers, and the general credit statistics available from the national bond rating agencies. Such statistics and ratios impact the credit ratings assigned by national credit rating agencies to debt (bonds) being issued by the University and other institutions.

There is no external "legal" limit on the maximum amount of debt that the University can issue. However, an increase in the amount of debt issued can negatively impact the financial ratios which are a critical component of the credit evaluation process used by the national bond rating agencies and can therefore impact the credit rating. Historically, the lower the credit ratings, the higher the financing costs (interest rates and other costs for debt issued).

The amount of debt that the University or any other institution can issue is limited or otherwise impacted primarily by the following factors:

1. The amount of funds the institution can or is willing to allocate from its operating budget(s) for annual debt service on outstanding debt. Since the debt is typically issued for 30 years, the allocation commitment is for that same period of time.
2. The amount of financing costs that an institution is willing to incur, assuming that credit ratings could eventually be lowered in response to an increasing debt load in relationship to financial resources.
3. Legal limits where such limits apply to the debt issuing institution.
4. Covenants in prior debt agreements.

There are a number of factors that significantly impact the financing costs of debt. Some of these factors relate to general economic conditions and the capital markets, and other factors that impact the creditworthiness of a specific organization. Creditworthiness is an assessment of an organization's ability to make all of its debt service payments in a timely manner. The credit worthiness of organizations is typically reflected in the credit ratings assigned by the rating agencies. In order to make this assessment, the credit rating agencies evaluate a number of factors, including balance sheet and income statement strength, State financial support, diversity of revenue streams, student demographics and demand, University programs, management and facilities.

Currently the University's credit rating is "AA-" by Standard and Poor's (S&P) and Fitch, which is at the lower end of the "double AA" ratings. (This is equivalent to an "Aa3" from Moody's.) As indicated in the attached Debt Analysis report, the "AA" rating is used to indicate strong credit worthiness. A rating in the "single A" category by the rating agencies would be considered above average creditworthiness. (Note: See Appendix C of the report for explanation of credit ratings by the three major credit rating agencies.) In today's economic environment, interest rate spreads across various credit ratings are compressed. If a university goes from a double "A" to the single "A" credit rating category, there is not a significant increase in the financing cost of issuing debt. All of the Michigan public universities that are rated, excluding the University of Michigan, Michigan State and Wayne State University, are rated in the "single A" Category.

In collaboration with UBS Securities LLC, the University's recent bond underwriter, the attached Debt Briefing report was compiled (see separate binder enclosed). Sections I, II and III of this report include a brief general overview and observations of the debt analysis, the University's credit strengths and limitations as viewed by rating agencies, the University's debt structure, and the relationship of its debt service to University revenues for selected years. In Section II, the University Debt Service by Funding Source schedule on page 6 shows the outstanding long term debt (bonds) as of September 30, 2006 by year of issue and in total, $354,550,000. It also provides a breakdown of the approximate total annual debt service of $25,105,000 by funding source, including $12,726,000 to be paid by the University's General Fund central budget.

Next, in section IV, the Debt Briefing report briefly summarizes the bond credit analysis factors (including the major determinants of the various ratings), the ratings hierarchy, and the equivalent ratings of the major national rating agencies (Moody's Investor Services, Standard & Poor's and Fitch). Additionally, in section V, the report provides a comparison of the University's key quantitative credit factors to Moody's composite credit factors for "Aa3" and "A1" rated public universities with more than 10,000 student FTEs. Moody's comparison statistics are used because they publish the most comprehensive and current information regarding these matters. Section VI of the report provides comparisons to the Moody's composite ratios previously discussed, as well as comparisons to other selected public universities in Michigan, selected "Big Ten" universities, and selected large urban research universities.

Among the more important financial ratios are the capital (balance sheet based) and debt service coverage (income statement based) ratios. Some of these, as related to this overall debt analysis, are highlighted in Section VII. The University's capital ratios measure the ratio of its existing financial resources to its debt as reflected on the balance sheet. When compared with some of the "Big Ten" universities or other universities with an "AA" category rating, Wayne's capital ratios are not as strong. In 2004, when the previous report was prepared, those capital ratios (i.e., total financial resources to debt, expendable financial resources to debt) were not as strong as the Moody's "AA" category median university data, and they have become less favorable since that time. The relative weakness in the University capital ratios is generally due to its limited financial resources, relative to other institutions with an "AA" category rating. The areas where the University's resources are lacking in comparison to other "AA" rated and some "A" rated universities, include: endowment funds, general fund reserves and fund balances of non-general fund reserves (plant fund, self insurance funds, auxiliary fund balances, etc.). It should be noted that because Moody's "Aa3" rated universities tend to have larger endowments and reserves, the rating agencies tend to place less weight on their debt coverage ratios than they would probably do with Wayne State University because it lacks the stronger capital ratios of these other universities. Since the prior report was prepared, the University's direct debt service coverage ratio has declined and its debt service to operations ratio is also less favorable because additional debt has been issued and there has not been a proportional increase in the overall operations of the University. (This University ratio has increased from 2.2% to 3.1%, which is still in the range of the Moody's "Aa3" median institutions.)

In Section VIII of the Debt Briefing report, models are presented that analyze the projected impact of future additional debt financings on the University's annual financial operations and balance sheet ratios. Three additional debt issuance scenarios are presented. They are not based upon particular projects, but are being presented to provide information about the possible impact that additional debt issuance might have on the University's capital and operating ratios. These scenarios are premised upon the assumption of the issuance of an additional $25 million of debt in 2007 (Scenario I), and another $50 million in 2008 (Scenario II) and $50 million in 2009 (Scenario III). These scenarios assume a modest growth in University revenues, expenses and assets over that time period.

Under each of the three scenarios, the University's capital ratios would weaken somewhat from their present comparisons to the other Moody's "Aa3" and "A1" rated university median data. As more debt is issued, the University's debt service to operations ratio will increase, converging with that of Moody's "A" rated universities median data. The University's debt service coverage ratio would be reduced from its present levels, as more debt is issued. Scenarios I and II would reduce the debt coverage ratios to levels of Moody's A1 and A2 university medians, respectively. Scenario III would create a debt coverage ratio level below Moody's A2 rated university medians. With these changes in the various ratios and other factors (such as the economic outlook for the State of Michigan) it is very possible that additional debt issuances would, at some point over the next year or so, cause a downgrade in the University's credit rating to the A1 (or A+ for S&P and Fitch) level. An A1 rating is the same as the rating currently received by Central Michigan University, Michigan Technological University and Grand Valley State University and higher than all other Michigan Public Universities excluding U of M and MSU. As shown in Appendix C of the attached report, a credit rating in the "A" category is considered an above average creditworthiness. With such a rating, the University would still be able to sell debt with reasonable financing costs (i.e., at the present time the interest rate differences between an "AA-" rated organization and a "A-" rated organization is only 7 basis points).

It should be noted that in January 2007, Fitch lowered the State's credit rating from "AA" to "AA-", and Moodys, which rates the State as a "Aa2", changed the State's rating outlook from "stable" to "negative". It is very possible that the State could receive further downgrades.

WAYNE STATE UNIVERSITY

*Presentation to:*

# Wayne State University Board of Governors

## Debt Briefing

March 21, 2007

**Finance and Facilities Management**

**UBS Securities LLC**

# Table of Contents

# Executive Summary

- Debt analysis involves many factors including an assessment of the impact of University financial operations, strategic goals and future debt service on WSU's current credit ratings by S&P/Fitch (AA-/AA-).

- The focus of this presentation is to compare some important financial and student statistics and ratios of WSU to those of other Michigan public universities, selected Big Ten, and certain large, urban public universities, and in relation to the Moody's Investor Service higher education rating medians. Being an institution with a "AA" credit rating, the credit rating agencies have already recognized the University as being an institution with a national reputation for its students and programs.

- Such comparisons cannot be used to mechanically determine WSU's ability to issue debt and maintain healthy credit ratings, because these can be impacted by many other factors.

- However, it does provide insight into critical variables impacting these matters.

- The adding of debt service obligations eventually must be complimented by additional revenues and/or expenditure cuts, or ratings will decline. A lower rating will result in higher financing costs because the premiums associated with the credit rating will go up, however interest rate spreads between ratings may vary over time depending on economic conditions.

# Current University Strengths and Limitations (1)

## Strengths

- **Adequate liquidity**
- **Comprehensive array of programs**
- **Revenue diversity**
- **Stable student enrollment**
- **Consistently balanced financial operations**
- **Manageable debt burden**
- **Management stability**

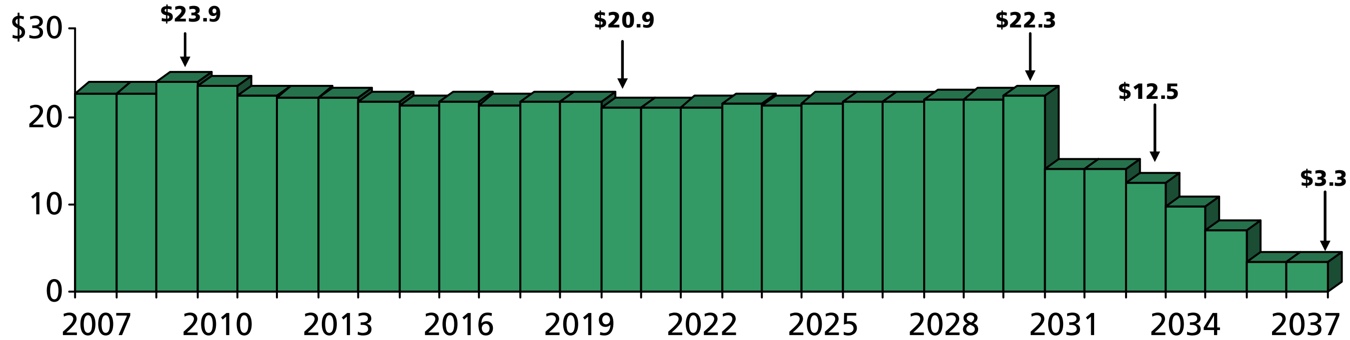
## Limitations

- **Limited financial resources (i.e. endowment funds, general fund reserves/surpluses and non-general fund reserves including auxiliary fund balances)**
- **Narrow geographic student draw**
- **Weak State financial situation and declining support to public higher education**

(1) See Appendix B for summary of strengths and limitations from the 2004 debt briefing report.

# Existing Capital Structure

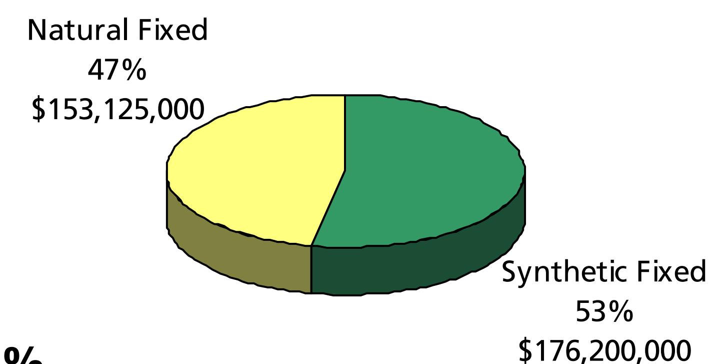
**Annual Debt Service Requirements***
*($ in millions)*




* Total debt outstanding at September 30, 2006 — $354 million

**Fixed/Floating Mix**


**Natural Fixed/Synthetic Fixed**




- **Weighted average cost of capital: 4.07%**
- **Remaining average life: 15.6 years**

# Existing Capital Structure — Debt Service by Funding Source

**($'s in thousands)**

| | | Approximate Amount of Annual Debt Service and Funding Source[i] | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Funding Source | | | | |
| | | | General Fund | Auxiliary | | | Other |
| | Outstanding Debt 9/30/06 | Total | | Housing | Parking | Other | |
| **Bond Series** | | | | | | | |
| 1993 | $ 3,040 | $ 416 | | $ 56 | $ 108 | | $ 252[a.] |
| 1999[b.] | 117,585 | 9,091 | $ 5,165 | 1,775 | 1,836 | $ 95[c.] | 220[d.] |
| 2001A | 17,950 | 1,243 | | 1,243 | | | |
| 2001B | 7,000 | 525 | 525 | | | | |
| 2002 | 44,100 | 2,963 | 945 | 1,315 | 555 | | 148[e.] |
| 2003 | 53,740 | 3,609 | 2,771 [f.] | | | | 838[e.] |
| 2004 | 59,300 | 3,777 | | 3,695 | | 82[c.] | |
| 2006 | 51,335 | 3,380 | 3,220 [g.] | | | 160[h.] | |
| **Other** | 500 | 100 | 100 | | | | |
| **Total** | $ 354,550 | $25,105 | $12,726 | $8,084 | $2,500 | $337 | $1,458 |

(a.) HUD subsidy. Approximately one half of this subsidy is for the Forest Apartments.
(b.) This includes refunding Series 1972, 1975, 1986 and 1993 bond issues and funds for new projects.
(c.) Student Center Building (Bond Series 1999 – refunded building bonds, Bond Series 2004 – boiler energy conservation project).
(d.) Law School Student Fees - Law School Expansion/Renovation project.
(e.) Funded from PRB and OBGYN practice plan rental income. Any funding shortfall will be funded by Facilities and Administrative cost reimbursement revenues.
(f.) Includes $2,531,000 in approximate debt service for research building renovations to be funded by Facilities and Admin. Cost Reimbursement. A portion of the bonds have a variable interest rate.
(g.) Includes $2,830,000 of debt service related to the campus-wide boiler energy conservation project which will reduce future years' utility steam costs increases.
(h.) Recreation and Fitness Center.
(i.) The actual annual amount for any year can vary, but over time the average is about the same.

# Existing Capital Structure —
# Sources of Payment for Debt Service for Selected Years

**Debt Service and Revenues**
**Selected Fiscal Years**
***($'s in millions)***

| Fiscal Year | 1995 | 2000 | 2003 | 2006 | 2007 (Estimate) (1) |
|---|---|---|---|---|---|
| **General Fund** | | | | | |
| Debt Service | $ 3.8 | $ 6.8 | $ 8.9 | $ 9.7 (2) | $ 12.7 (2) |
| Revenues | $301.8 | $374.7 | $418.6 | $475.5 | $495.0 |
| Debt Service as a % of Revenues | 1.3% | 1.8% | 2.6% | 2.8% | 2.6% |
| **Current Funds – Unrestricted (5)** | | | | | |
| Debt Service | $ 4.5 | $ 8.8 | $ 11.4 | $ 18.9 (3) | $ 24.6 (3) |
| Revenues | $329.0 | $443.4 | $521.9 | $590.4 | $613.0 |
| Debt Service as a % of Revenues | 1.4% | 2.0% | 3.4% | 3.2% | 4.0% |
| **Total – All Funds** | | | | | |
| Debt Service | $ 4.8 | $ 9.3 | $ 11.9 | $ 18.9 | $ 25.1 |
| Revenues | $493.2 (4) | $647.3 (4) | $723.0 | $809.9 | $832.0 |
| Debt Service as a % of Revenues | 0.9% | 1.4% | 2.3% | 2.3% | 3.0% |

(1) For FY 2007, the revenues are estimated based upon the FY 2007 budgets. Also included in the debt service amount is a fully annualized principal and interest amount for the Series 2006 bonds even though there is only a partial year's interest payment in FY 2008 and a full year's principal and interest payment in FY 2009. This was done to provide an estimate of the longer term debt service requirements.
(2) Includes $2.5 million in debt service for research laboratory renovations. This debt service is funded by Facilities and Administrative cost reimbursement.
(3) Includes $1.0 million in debt service to be paid as rental payments by the PRB contract and OBGYN practice plan rental payments related to the PRB contract.
(4) Estimated based upon financial accounting standards implemented in FY 2002.
(5) This includes the General, Designated, Auxiliary and Independent funds.

# Credit Analysis Framework

- **Moody's gives six major factors that drive credit analysis for a public higher education issuer**

  1. Relationship with the State: *"The higher the level of dependence on state funding, the more attention is paid…to the supporting state's own credit quality."*
  2. Market Position: Focus on demand trends, including selectivity, enrollment, retention, pricing strategy, student geographic draw and research performance.
  3. Operating Performance and Retention of Operating Surpluses: Moody's *"examines a public university's operating history, the diversity and strength of its revenue sources, and its major expense drivers…[as well as]…its budgeting policies and the areas of flexibility within the budget that would enable an institution to withstand unexpected revenue shortfalls or expense increases…" (i.e. surplus)*
  4. Balance Sheet Strength: *"Includes both a point-in-time analysis of financial resources relative to debt and the size of the institution as measured by operations and enrollment, as well as the key drivers of historical and projected resource accumulation and leverage."*
  5. Debt Position and Capital Funding Profile: Balance sheet and income statement analysis.
  6. Strategy and Management.

Note: Quotes in italics from Moody's publication, "Public College and University Medians 2005-2006".

# Credit Analysis Framework

| Investment Grade Ratings | | |
|---|---|---|
| **Moody's** | **S&P** | **Fitch** |
| Aaa | AAA | AAA |
| Aa1 | AA+ | AA+ |
| Aa2 | AA | AA |
| Aa3 | **AA-** | **AA-** |
| A1 | A+ | A+ |
| A2 | A | A |
| A3 | A- | A- |
| Baa | BBB | BBB |

**WSU Rating**

- **Moody's is the only rating agency that supplies comprehensive industry medians and peer institution ratios, so its credit analysis framework is the one commonly used. However, WSU is only rated by Standard & Poor's and Fitch.**

(1) Please refer to Appendix C for additional description of ratings.

# Credit Analysis Framework

## General Observations

- Debt analysis begins with a comparison of an institution's credit characteristics versus Moody's medians for some or all of the institutions in a particular ratings category ("AA" or "A").
- In the Double-A category, it is assumed academic programs will be nationally renowned; student quality, enrollment and demand indicators will be superior; capital campaign results will be solid; and revenues will be more diversified than at lower rating levels. Individual rating agencies may value these factors and others (i.e., university management, physical plant, location, and ingrained institutional flexibility) differently.
- The effect of higher levels of indebtedness on key income and balance sheet ratios is assessed quantitatively to estimate the amount of leverage that the institution can add and still maintain ratios that are close to Moody's medians and/or other institutions.
- Debt analysis varies with the rating targeted — a lower rating target will likely permit higher leverage.

## WSU Observations

- Certain of WSU's credit factors exceed the national medians for the institution's current rating category. Other credit factors are weaker than the rating agency medians for its category.
- When comparing WSU to the Moody's median data, we only include institutions with greater than 10,000 FTEs. Smaller schools tend to skew the results.

# Comparison to Moody's "Aa3" and "A1" Medians (1)

| Credit Factor (2) | A1 | Wayne State University | Aa3 | Desired Trend |
|---|---|---|---|---|
| Freshman Selectivity | 73.30% | 85.40% | 73.90% | ↓ |
| Freshman Matriculation | 44.30% | 42.30% | 45.00% | ↑ |
| Total Enrollment FTE | 22,036 | 22,949 | 28,215 | ↑ |
| Direct Debt | $175,390,000 | $ 376,360,000(3) | $ 328,950,000 | ↓ |
| Total Financial Resources | 332,730,000 | 428,520,000 | 695,640,000 | ↑ |
| Unrestricted Financial Resources | 71,260,000 | 158,200,000 | 168,130,000 | ↑ |
| Expendable Financial Resources | 207,730,000 | 327,100,000 | 379,630,000 | ↑ |
| Total Cash and Investments | 209,640,000 | 486,312,000 | 499,390,000 | ↑ |
| Unrestricted Financial Resources to Direct Debt | 0.40x | 0.42x | 0.60x | ↑ |
| Total Financial Resources to Direct Debt | 1.40x | 1.14x | 2.10x | ↑ |
| Total Cash and Investments to Direct Debt | 1.00x | 1.29x | 1.40x | ↑ |
| Expendable Financial Resources to Direct Debt | 0.90x | 0.87x | 1.20x | ↑ |
| Direct Debt per Student (FTE) | $ 8,805 | $ 16,400 | $ 11,751 | ↓ |
| Total Financial Resources per Student (FTE) | $ 12,809 | $ 18,673 | $ 22,725 | ↑ |
| Unrestricted Financial Resources to Operations | 0.17x | 0.22x | 0.20x | ↑ |
| Expendable Financial Resources to Operations | 0.35x | 0.46x | 0.49x | ↑ |
| Direct Debt Service Coverage | 2.90x | 2.92x | 3.20x | ↑ |
| Debt Service to Operations | 2.60% | 3.12% | 3.00% | ↓ |
| State Appropriations as a % of Total Revenue | 35.0% | 30.0% | 31.1% | ↓ |
| State Appropriation per Student (FTE) | $ 6,937 | $ 9,684 | $ 9,220 | ↑ |
| Annual Operating Margin | 1.30% | 0.75% | 2.60% | ↑ |
| Estimated Age of Plant Based on Depreciation (years) | 11.5 | 11.5 | 12.0 | ↓ |

(1) Only includes public universities with FTE > 10,000.
(2) Complete definitions are included in Appendix A.
(3) Estimates short-term loans (School as Lender Program = $22 million), notes and unamortized bond premium.

# Comparative Analysis

- While WSU should not necessarily base its own strategic funding decisions on the debt loads or capital structures of other universities, a "comparable analysis" can be a helpful benchmark.  The following analysis compares WSU to other selected Michigan public universities, selected Big Ten and large urban public universities, as well as the Moody's median data.

- In reviewing the following tables it will show:
  - When measured against selected in-State public universities, WSU's position in the "Top Three" is apparent, in terms of its strong State support, total revenues and total financial resources.
  - WSU's debt service to operations ratio is in the range of Aa3-rated institutions
  - In comparison to Big Ten and selected large urban research institutions, WSU has lower levels of financial resources and higher levels of direct debt to financial resources.
  - WSU's reliance on State appropriations and the amount it receives per student FTE compares favorably with comparable institutions.

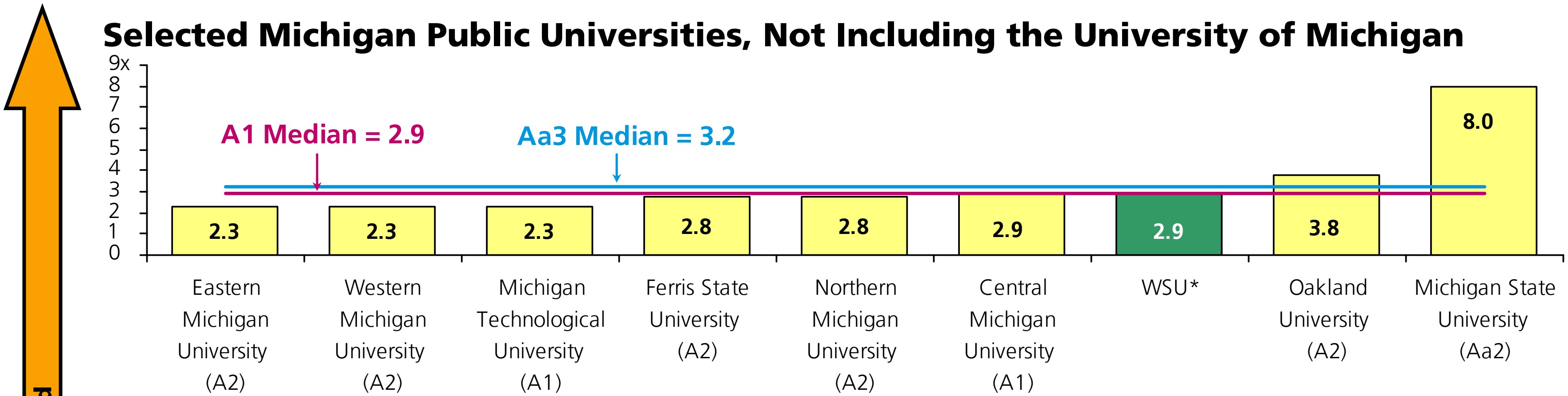
- Prior to any new capital debt, WSU has to consider the trade-off between the impact on its debt burden (ability to pay) and the impact on its competitive position.  For example, if WSU has a high debt load as a percentage of operations, its cost structure will be higher, potentially forcing WSU to re-allocate part of its annual revenues to pay debt service while peers with lower debt burdens are better able to use revenues for other functions. However, the new debt-financed projects could make WSU more competitive.

# Comparative Analysis

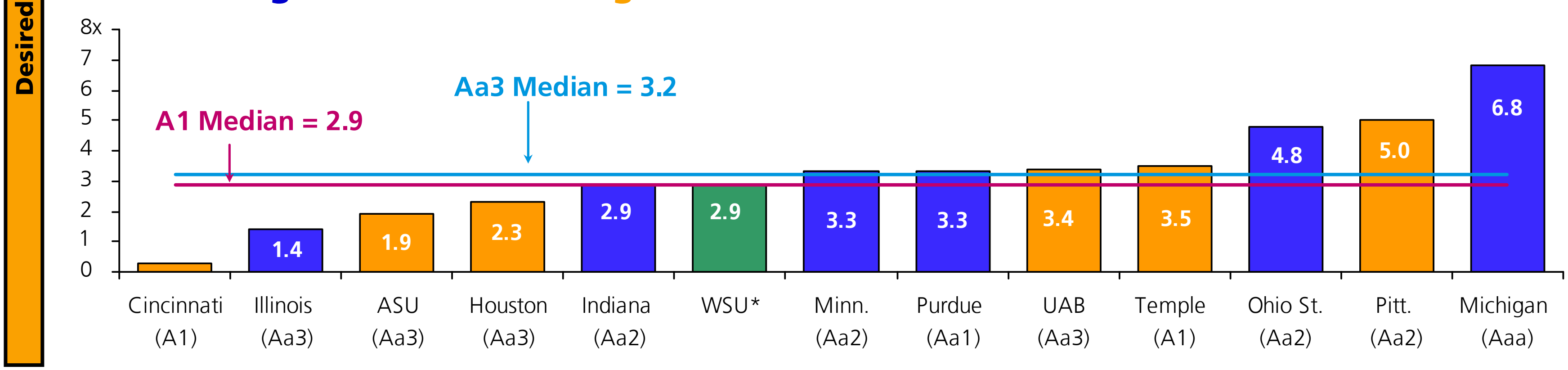
## Direct Debt Service Coverage *(x)*

*Annual operating surplus plus depreciation expense plus interest expense divided by debt service payment*

### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

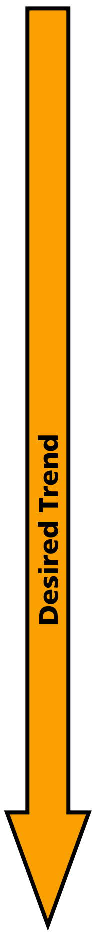



* WSU is not rated by Moody's. It is rated AA- by S&P and Fitch. These ratings are equivalent to a Aa3 Moody's rating.

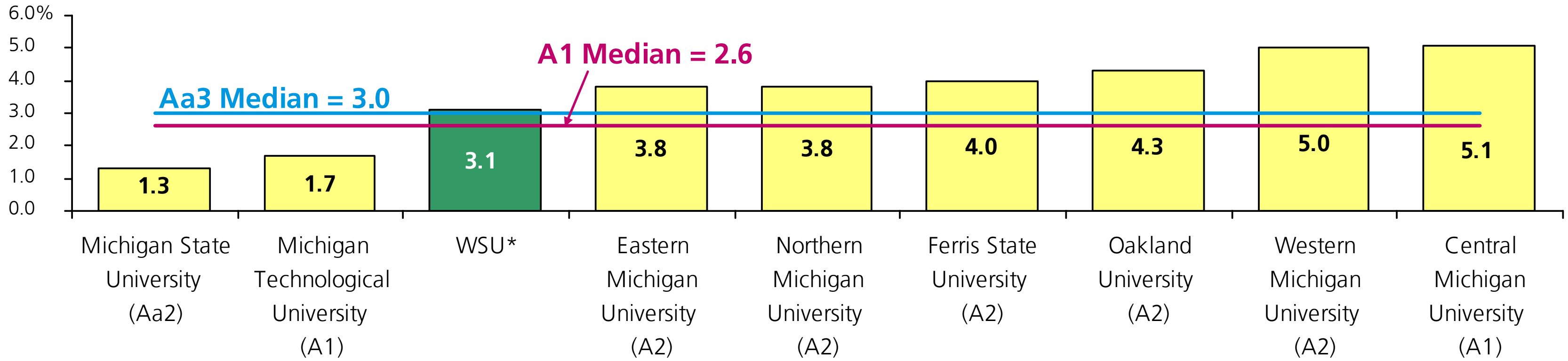
# Comparative Analysis

## Debt Service to Operations *(%)*

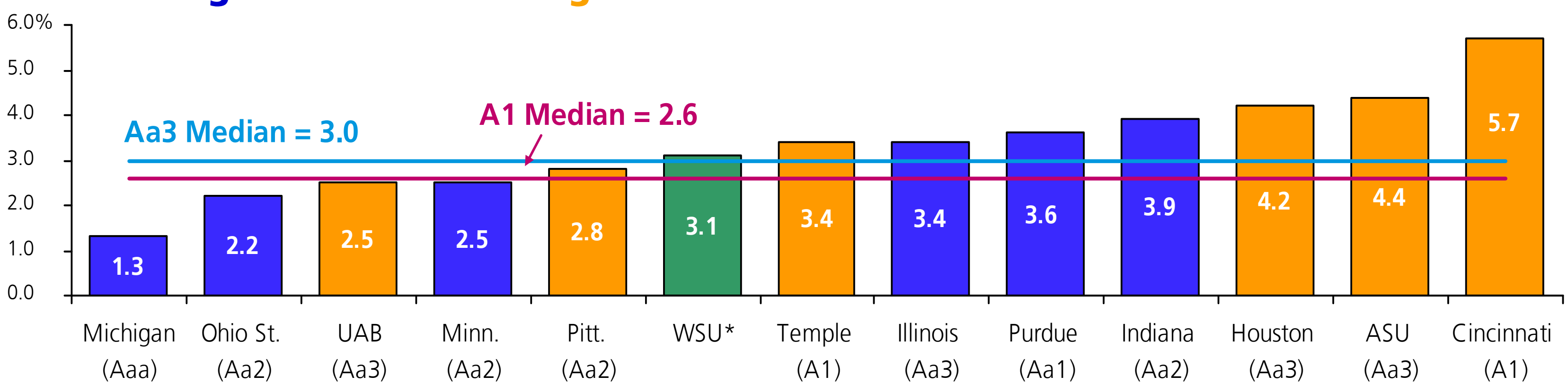
*Peak annual debt service divided by total operating expenses*




### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

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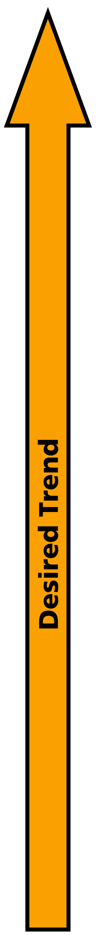
# Comparative Analysis

## **Total Financial Resources** *($, in millions)*

*Sum of unrestricted net assets, restricted expendable net assets, restricted nonexpendable net assets less net investment in plant*

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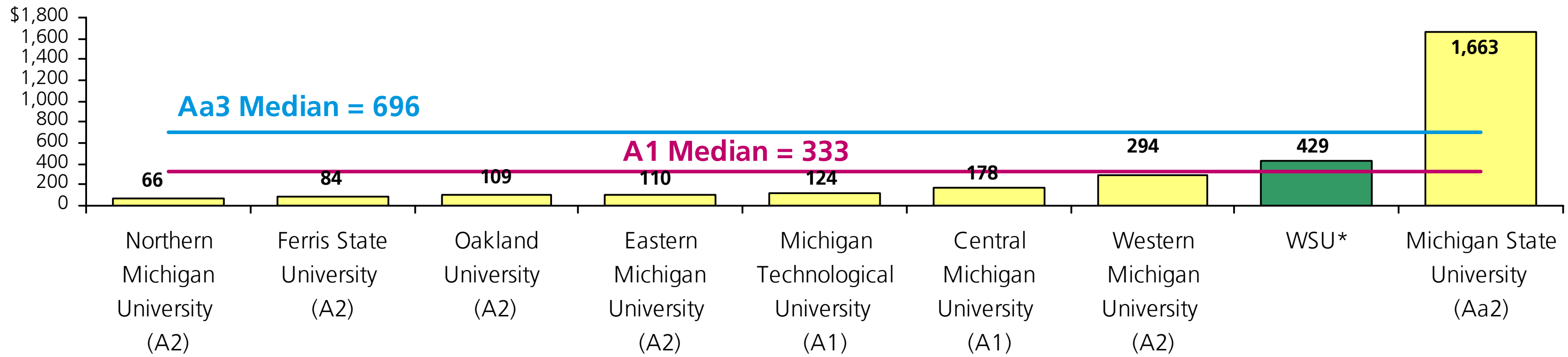
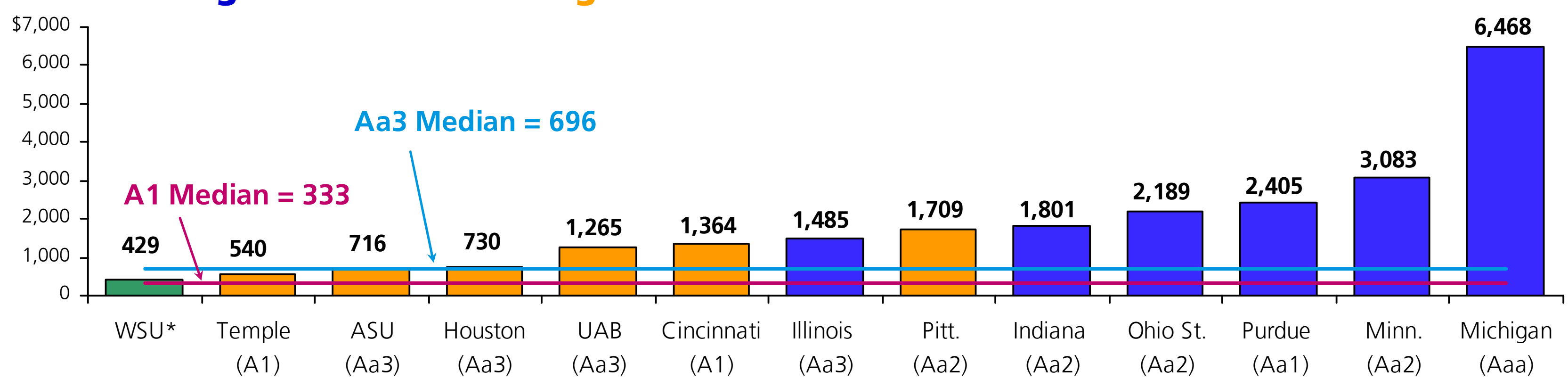



### Selected Big Ten and Other Large Urban Research Institutions

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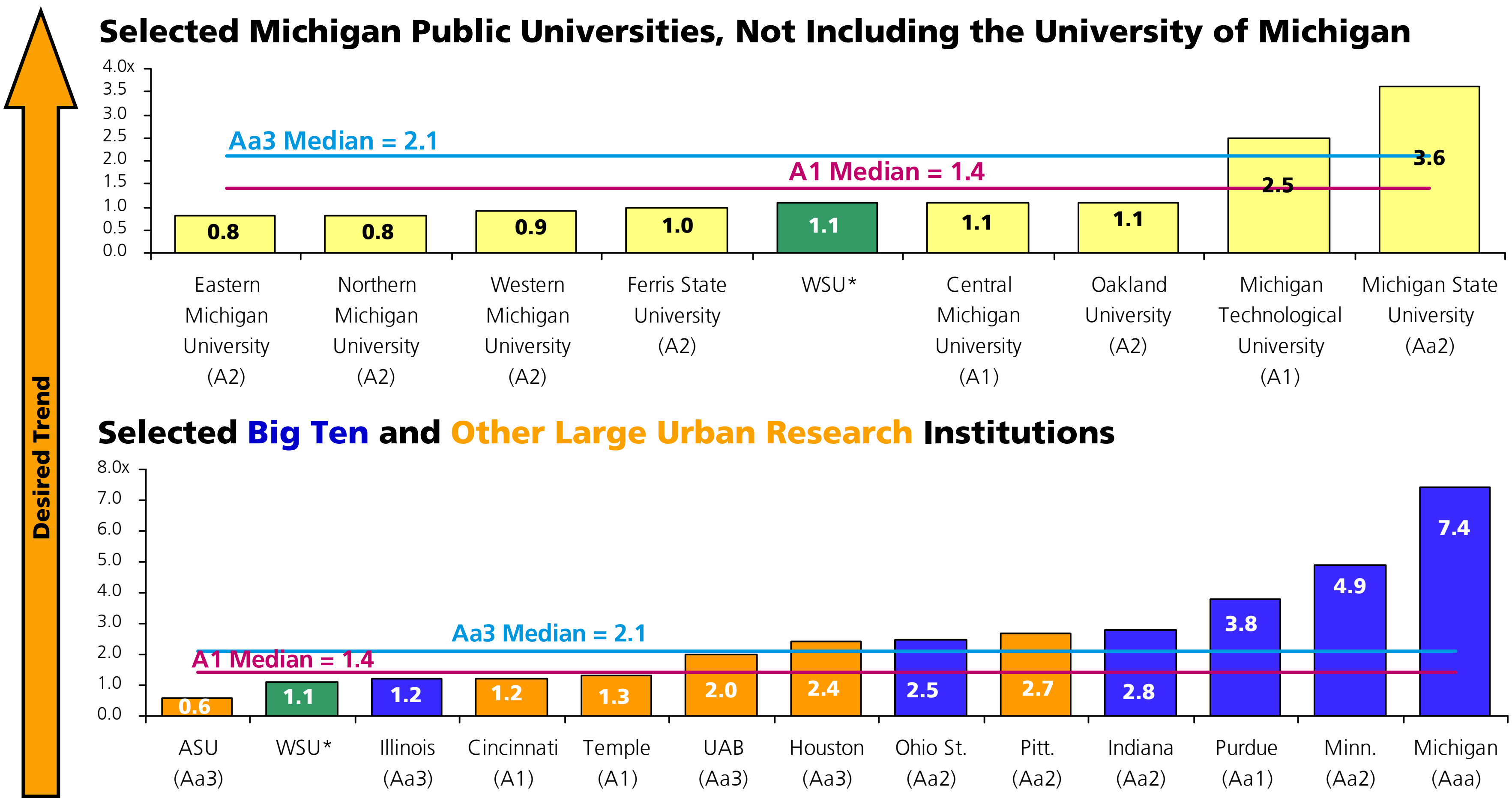
# Comparative Analysis

## Total Financial Resources to Direct Debt *(x)*

*Total financial resources divided by direct debt*

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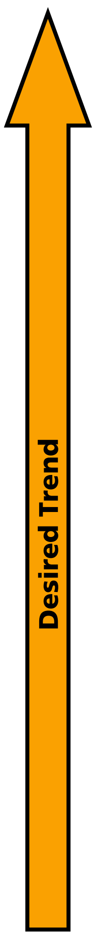
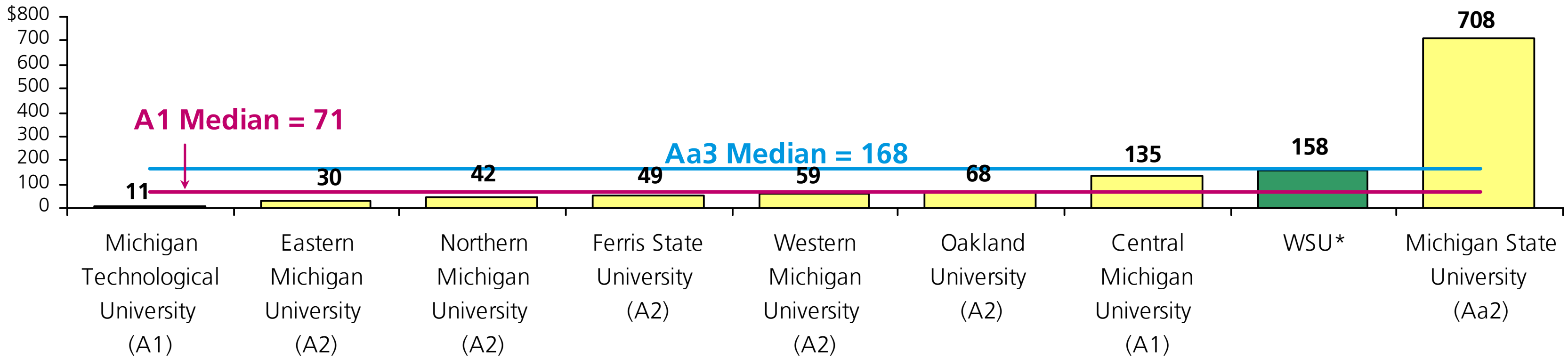
# Comparative Analysis

## **Unrestricted Financial Resources** *($, in millions)*

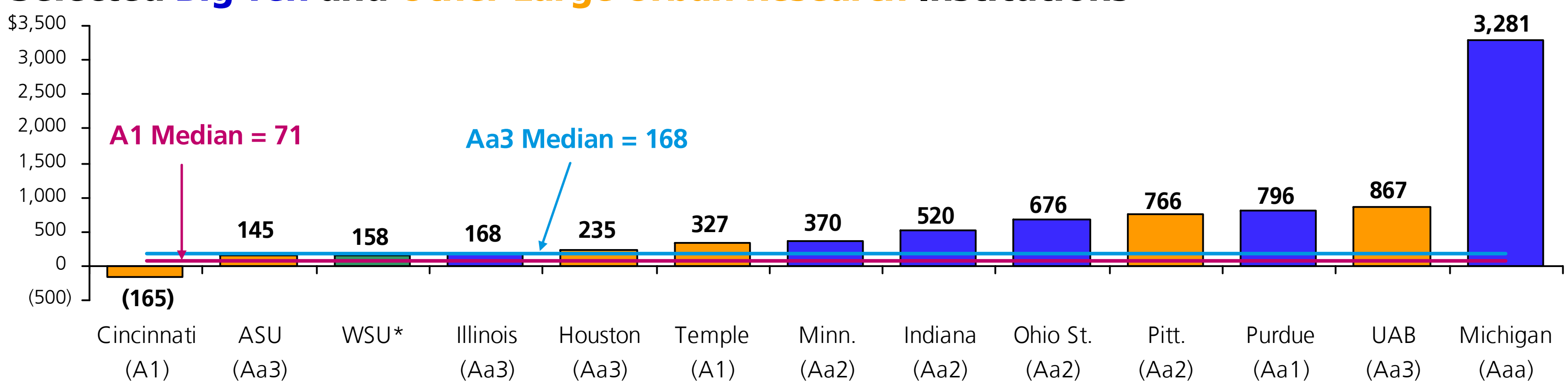
*Unrestricted net assets*




### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

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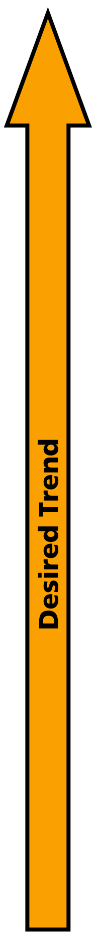
# Comparative Analysis

## Unrestricted Financial Resources to Direct Debt *(x)*

*Unrestricted net assets divided by direct debt*

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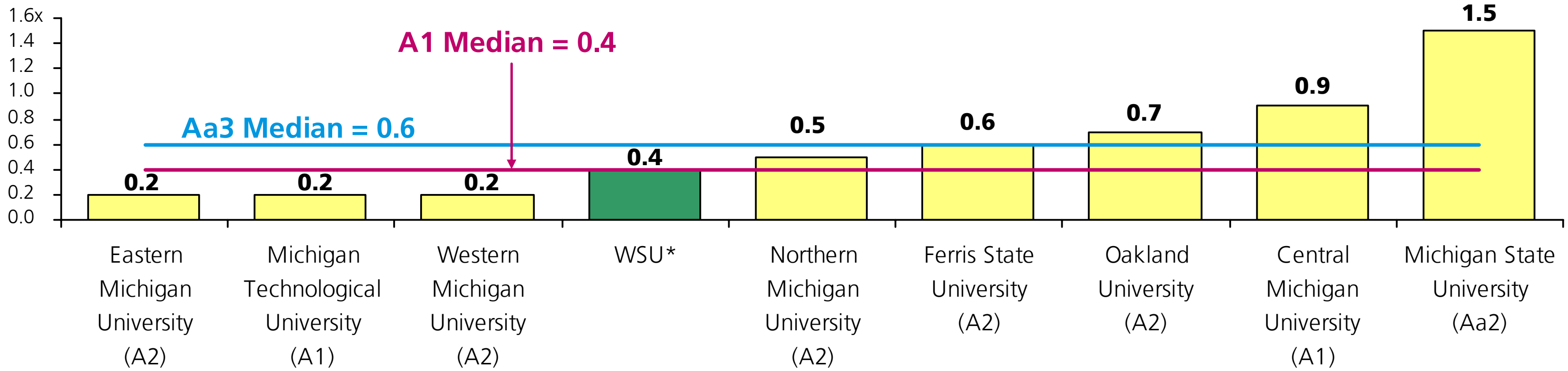
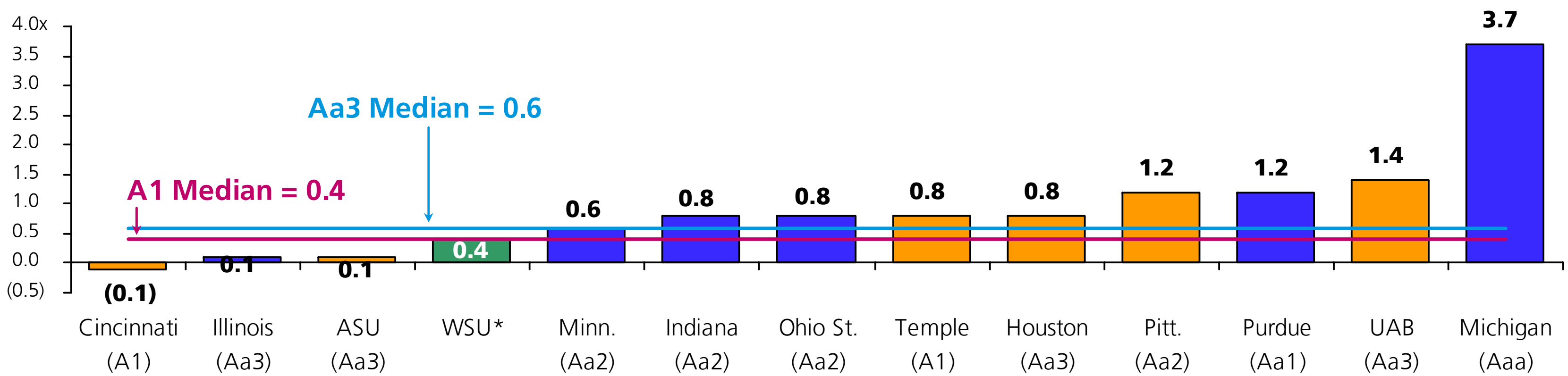



### Selected Big Ten and Other Large Urban Research Institutions

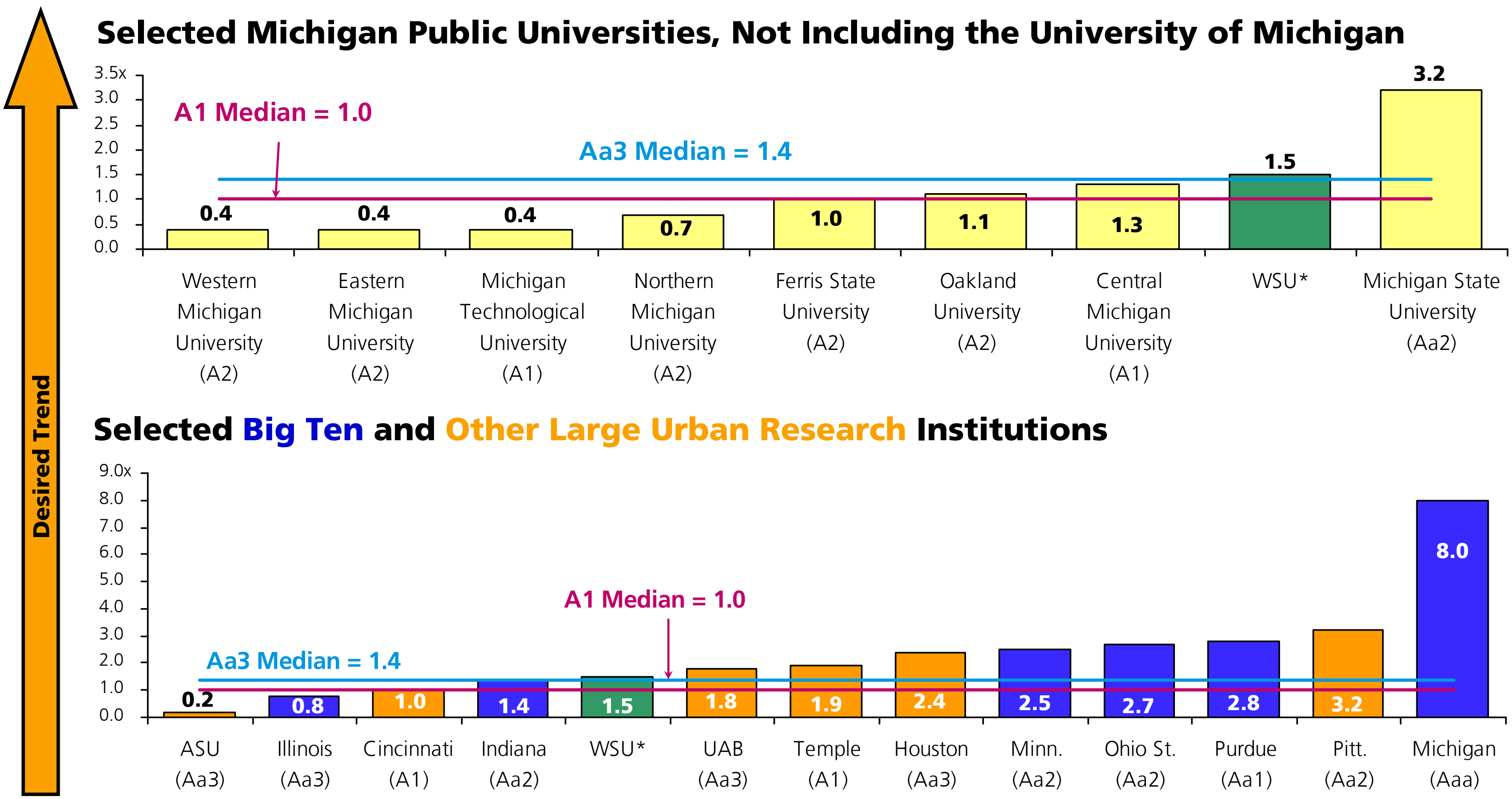



* WSU is not rated by Moody's. It is rated AA- by S&P and Fitch. These ratings are equivalent to a Aa3 Moody's rating.

# Comparative Analysis

## Total Cash and Investments to Direct Debt *(x)*

*Total cash and investments divided by total direct debt*



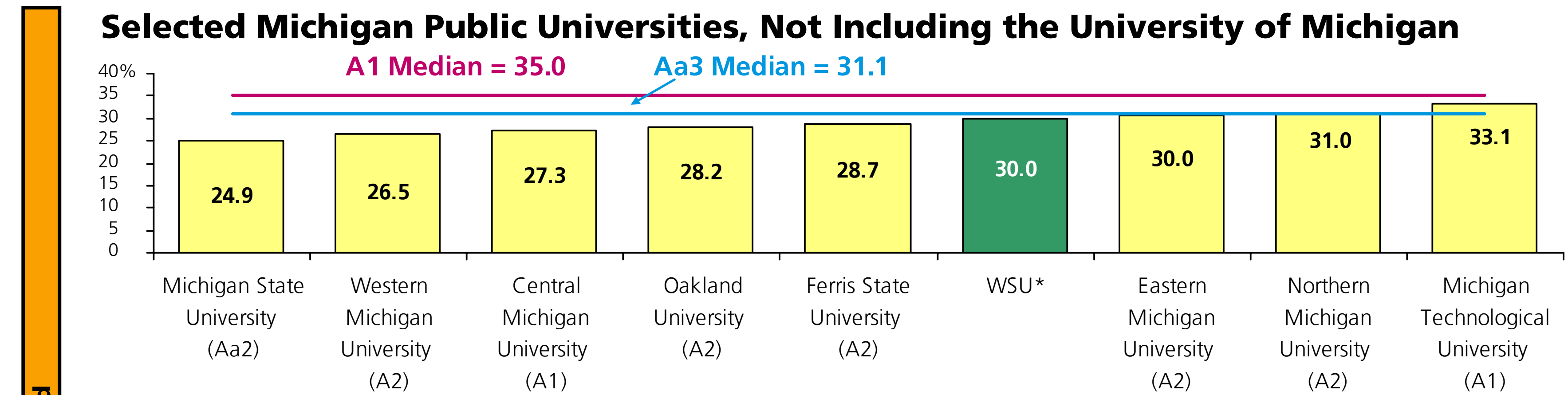

* WSU is not rated by Moody's. It is rated AA- by S&P and Fitch. These ratings are equivalent to a Aa3 Moody's rating.

# Comparative Analysis

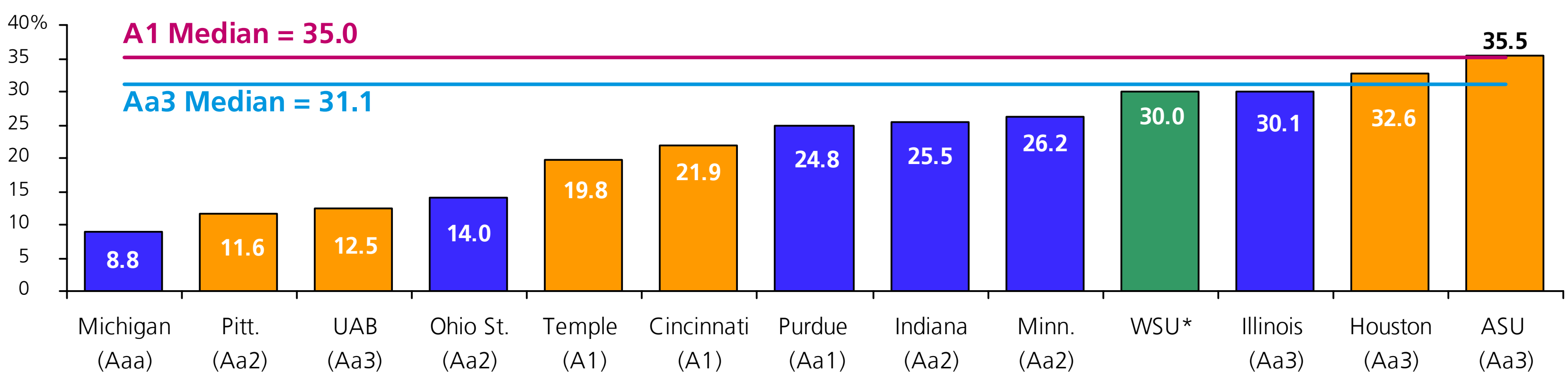
## State Appropriation as a Percent of Total Revenue (%)

*State appropriations divided by total operating revenues (inclusive of State appropriations for operations)*

### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

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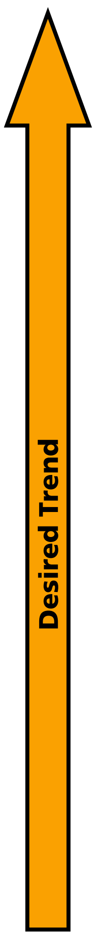
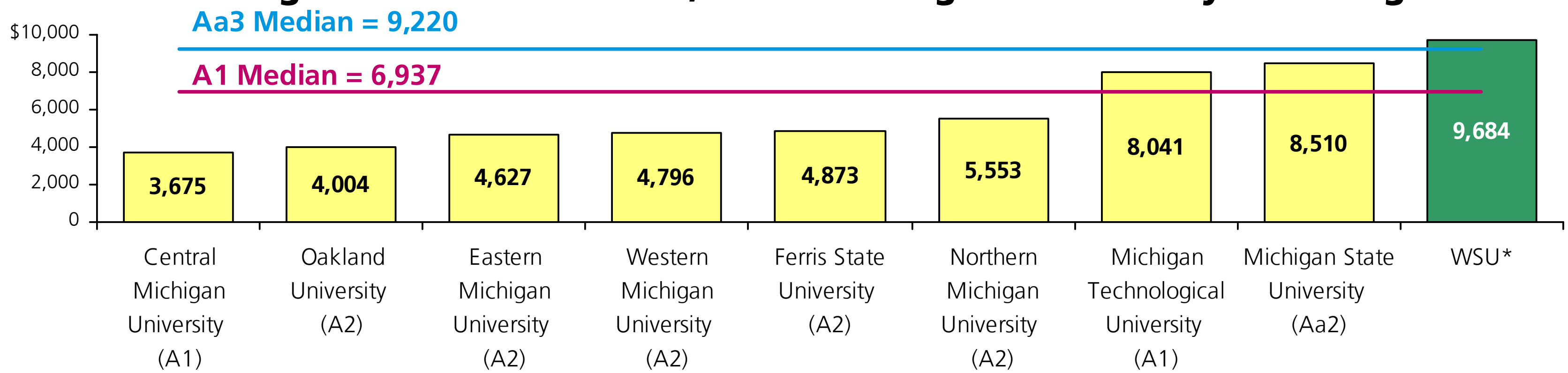
# Comparative Analysis

## State Appropriation per Student (FTE) *($)*

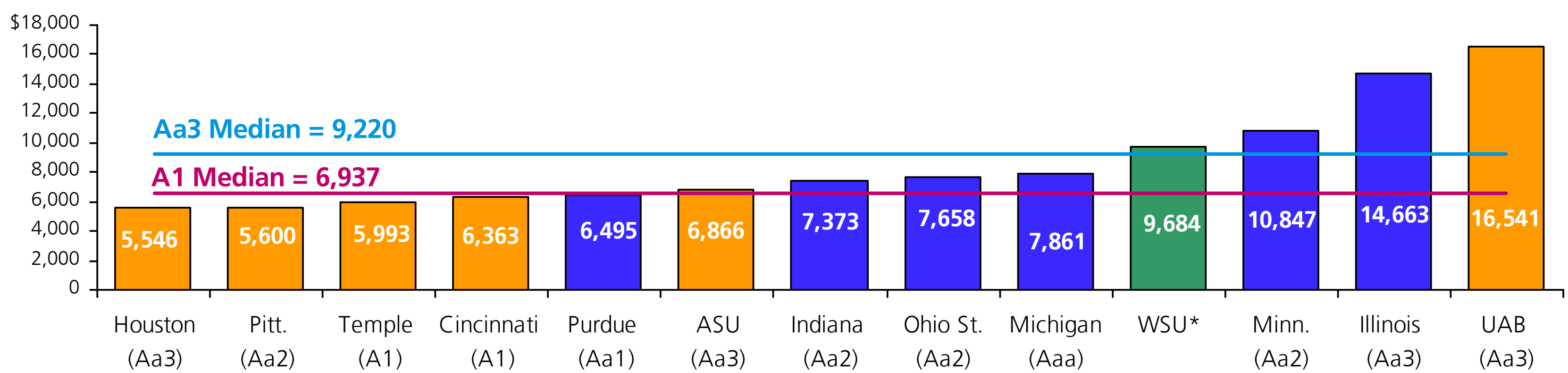
*State appropriation divided by total full-time equivalent enrollment*




### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

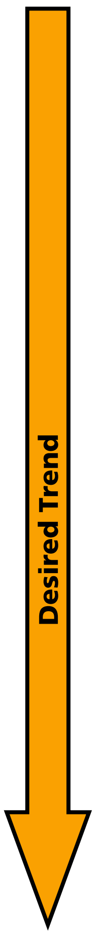



* WSU is not rated by Moody's. It is rated AA- by S&P and Fitch. These ratings are equivalent to a Aa3 Moody's rating.

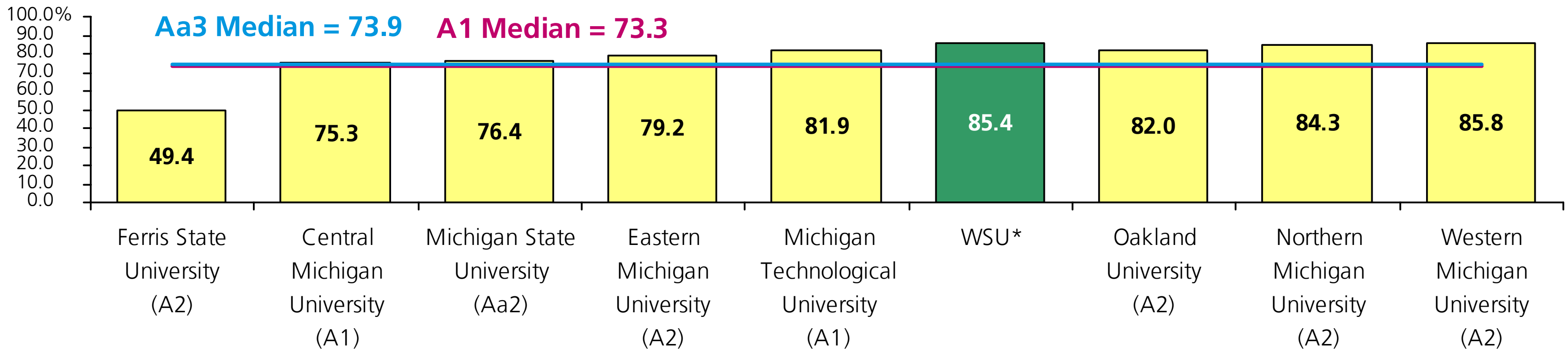
# Comparative Analysis

## **Freshmen Selectivity** *(%)*

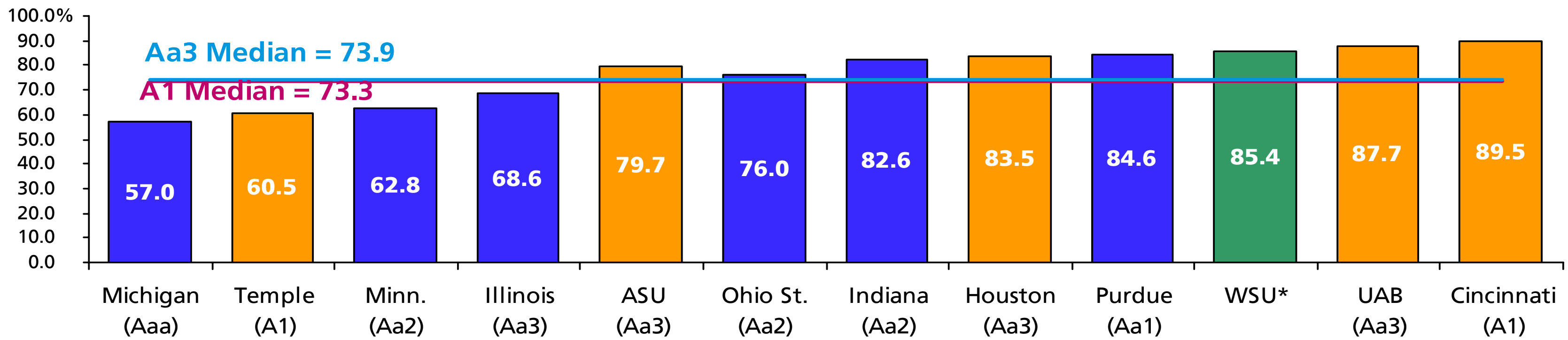
*Measures student demand (number of acceptances divided by number of applicants)*




### Selected Michigan Public Universities, Not Including the University of Michigan




### Selected Big Ten and Other Large Urban Research Institutions

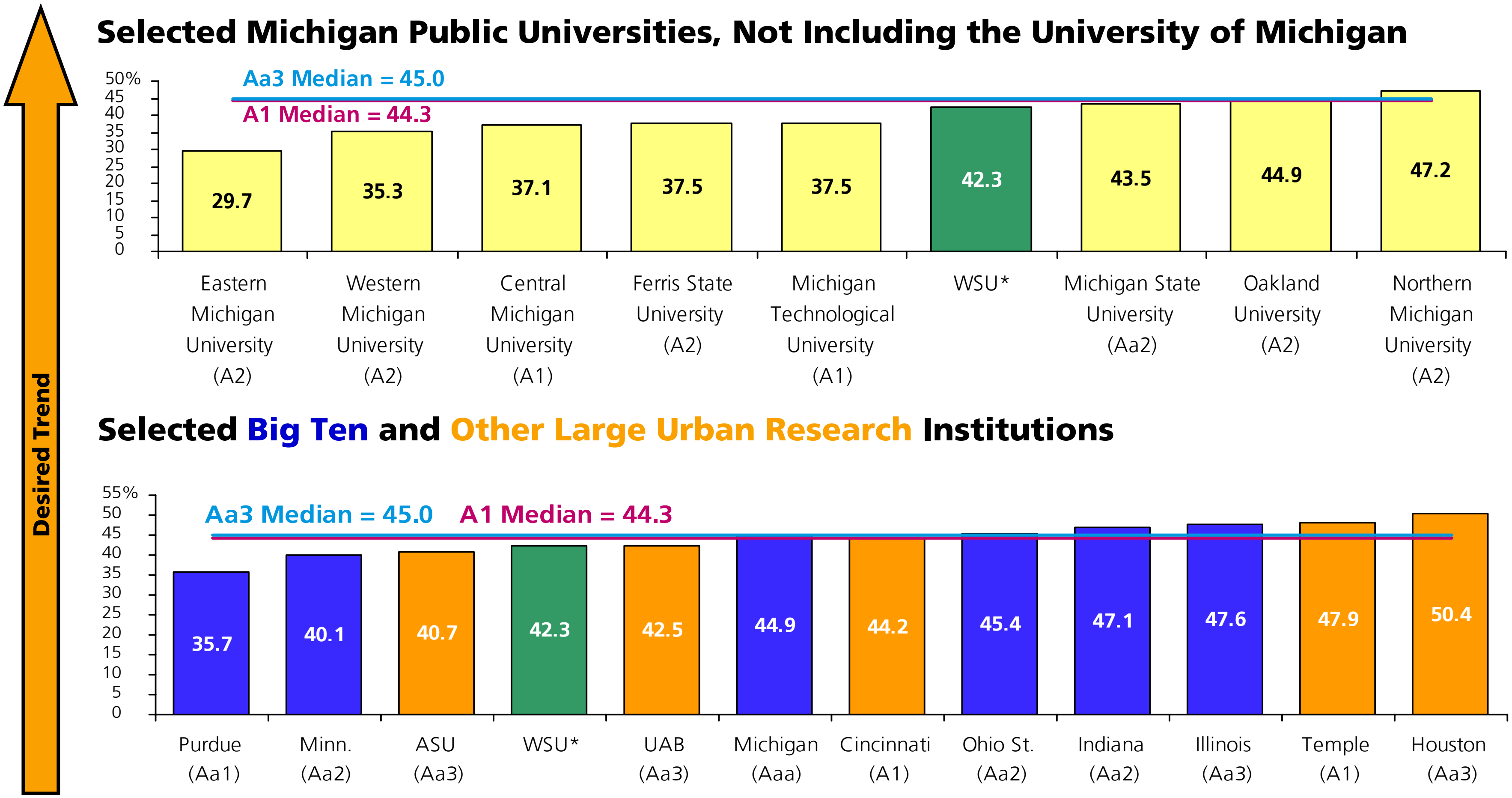



* WSU is not rated by Moody's. It is rated AA- by S&P and Fitch. These ratings are equivalent to a Aa3 Moody's rating.

# Comparative Analysis

## **Freshmen Matriculation** *(%)*

*Measures student demand (number of students enrolling divided by number of applications accepted)*




* WSU is not rated by Moody's.  It is rated AA- by S&P and Fitch.  These ratings are equivalent to a Aa3 Moody's rating.

# Income Statement and Balance Sheet Measures

- **A critical factor for higher education institutions when considering adding debt, is the ability to reasonably afford (or cover) incremental debt service payments.  One of the measures that the marketplace considers is net operating revenues available to make debt service payments.**

- **Compared to the "Aa3" median ratios, WSU's debt service coverage ratios are mixed:**
  - Debt service to operations coverage:  The "Aa3" median is 3.00 and "A1" is 2.60. WSU is 3.12.
  - Direct debt service coverage:  The "Aa3" median is 3.20 and "A1" is 2.90.  WSU is 2.92.

# Income Statement and Balance Sheet Measures

- **Existing and future ratings are not solely dependent upon leverage or capital ratios. In the "AA" category, the balance sheet plays a large role in the rating outcome when compared to income statement measures. At lower rating levels, income statement measures play a comparatively larger role in determining the ratings.**
- **If certain capital or debt ratios become too weak (in relative comparison to the existing rating category), the rating could be jeopardized.**
- **WSU's Unrestricted and Expendable financial resources to debt ratios are in the range of "A1" median universities, and WSU's total financial resources to debt ratio is below that of the "A1" median universities.**
  - Unrestricted Resources to Direct Debt: The "Aa3" median is 0.60 and the "A1" median is 0.40. WSU is 0.42.
  - Expendable Financial Resources to Direct Debt: The "Aa3" median is 1.20 and the "A1" ratio is 0.90. WSU is 0.87.
  - Total Financial Resources to Direct Debt: The "Aa3" median is 2.10 and the "A1" median is 1.40. WSU is 1.14.

# Income Statement and Balance Sheet Measures

- Leveraging capacity is not static and it is assumed that most institutions within WSU's rating category will periodically issue new debt. One rating agency stated that 85% of all rated colleges and universities issue debt on average every five years or less. Higher rated entities tend to issue debt more frequently to either take advantage of compelling market opportunities or to satisfy their larger capital and investment needs.

# Effect of Future Borrowing on Key WSU Statistics

- **The following table compares WSU to key Moody's financial ratios and shows the effect of scenarios where additional debt is issued in 2007 – 2009 with modest growth in revenues, expenses and assets over that time.**
- **WSU's actual debt service to operations is presently in the range of the Moody's Aa3 median but would move to the A2 Moody's median level as more debt is issued. The other key ratios would fall further below the A1 medians.**

| | | | | | Scenarios | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | I | II | III | |
| Moody's Ratio | Moody's Aa3 Median (1) | Moody's A1 Median (1) | Moody's A2 Median (1) | WSU as of FY2006 | After Potential Issuance of $25 million in 2007 (2)(3) | $50 million in 2008 (2)(3) | $50 million in 2009 (2)(3) | Desired Trend |
| Fitch/S&P Comparable Rating | AA- | A+ | A | | | | | |
| Direct Debt Service Coverage | 3.20x | 2.90x | 2.50x | 2.92x | 2.73x | 2.41x | 2.15x | ↑ |
| Debt Service to Operations | 3.00% | 2.60% | 4.10% | 3.12% | 3.22% | 3.58% | 3.93% | ↓ |
| Total Financial Resources to Direct Debt | 2.10x | 1.40x | 1.00x | 1.14x | 1.13x | 1.04x | 0.97x | ↑ |
| Expendable Financial Resources to Direct Debt | 1.20x | 0.90x | 0.70x | 0.87x | 0.86x | 0.79x | 0.74x | ↑ |

(1) Only includes public universities with FTE > 10,000.
(2) Assumes annual growth of financial resources and net operating revenues of 4% in FY2007 and 2% in FY2008 and 2009.
(3) Accounts for debt that will be paid off.

# Effect of Future Borrowing on Key WSU Statistics

- **For WSU, deterioration in these capital and debt coverage ratios could offset WSU's other credit positives jeopardizing its ratings.**

# Impact of Rating Downgrade on Cost of Borrowing

- An institution's credit rating can impact its cost of borrowing (interest rate and cost of insurance).

- At the present time, there are minimal differences in the cost of borrowing between "AA-" and "A-" rated public universities (presently approximately 7 basis points). This is largely due to the fact that interest rate credit risk premiums are very low in today's capital markets.

- However, the size of the credit risk premiums embedded in interest rates for various credit ratings varies over time, and therefore the impact of a credit rating downgrade on the University's cost of borrowing will vary over time.

- Additionally, once an institution receives a credit rating downgrade, it can be difficult to re-establish the higher rating that was lost.

# Appendix A: Definitions of Key Moody's University Ratios

- **Annual Operating Margin (%) –** Indicates the excess margin (or deficit) by which annual revenues cover operating expenses
  - — Formula: Operating surplus (deficit) divided by total operating revenue
- **Debt Service to Operations (%) –** Measures peak debt service burden on the annual operating budget
  - — Formula: Peak annual debt service divided by total operating expenses
- **Direct Debt ($) –** Measures direct legal obligations of the institution
  - — Formula: Institution's obligations (e.g. bonds, notes, commercial paper, capital leases, bank loans, and draws upon lines of credit)
- **Direct Debt per Student ($) –** Compares direct debt to the size of the student body
  - — Formula: Direct debt divided by full-time equivalent enrollment
- **Direct Debt Service Coverage (x) –** Measures actual margin of protection for annual debt service payments from annual operations
  - — Formula: The sum of annual operating surplus (deficit) plus depreciation expense plus interest expense divided by total of principal and interest payments

# Appendix A: Definitions of Key Moody's University Ratios

- **Estimated Age of Plant Based on Depreciation (years) –** Provides a rough indicator of institutional deferred maintenance as well as the operating efficiency of the existing plant facilities
  - Formula: Accumulated depreciation divided by depreciation expense
- **Expendable Financial Resources ($) –** Measure of financial resources that are expendable over the long-run
  - Formula: The sum of unrestricted net assets plus restricted expendable net assets plus unrestricted / temporarily restricted net assets less net investment in plant
- **Expendable Financial Resources to Direct Debt (x) –** Measures coverage of direct debt by financial resources that are ultimately expendable
  - Formula: Expendable financial resources divided by direct debt
- **Expendable Financial Resources to Operations (x) –** Measures coverage of annual operation expenses by financial resources that are ultimately expendable
  - Formula: Expendable financial resources divided by total operating expenses
- **Freshman Matriculation (%) –** Measures student demand
  - Formula: Number of students enrolling divided by number of applications accepted

# Appendix A: Definitions of Key Moody's University Ratios

- **Freshman Selectivity (%) –** Measures student demand
  - Formula: Number of acceptances divided by number of applicants
- **State Appropriation as a % of Total Revenues (%) –** Measures reliance on state support as a percent of total operating revenues
  - Formula: State appropriations divided by total operating revenues
- **State Appropriation per Student ($) –** Compares state support to the size of the student body
  - Formula: State appropriations divided by total full-time equivalent enrollment
- **Total Cash and Investments ($) –** Measure of overall wealth and base of assets that generate investment return
  - Formula: Cash and investments on institution's balance sheet
- **Total Cash and Investments to Direct Debt (%) –** Measures coverage of direct debt by assets that generate investment return
  - Formula: Total cash and investments divided by total direct debt
- **Total Enrollment FTE (#) –** Measures size of institution's student population
  - Formula: Full time equivalent enrollment

# Appendix A: Definitions of Key Moody's University Ratios

- **Total Financial Resources ($) –** Measures total financial wealth of institution
  - Formula: The sum of unrestricted net assets plus restricted expendable net assets plus restricted nonexpendable net assets less net investment in plant
- **Total Financial Resources to Direct Debt (x) –** Measures coverage of direct debt by total financial resources including permanent endowments
  - Formula: Total financial resources divided by direct debt
- **Total Financial Resources per Student ($) –** Compares financial resources to the size of the student body
  - Formula: Total financial resources divided by total full-time equivalent enrollment
- **Unrestricted Financial Resources ($) –** Amount of most liquid unrestricted resources
  - Formula: Unrestricted net assets
- **Unrestricted Financial Resources to Direct Debt (x) –** Measures coverage of direct debt by the most liquid unrestricted resources
  - Formula: Unrestricted net assets divided by direct debt
- **Unrestricted Financial Resources to Operations (x)** – Measures coverage of annual operations by the most liquid unrestricted resources
  - Formula: Unrestricted net assets divided by total operating expense

# Appendix B: University's Strengths and Limitations from 2004 Debt Briefing Reports

**Strengths**

- **Strong student demand with growing enrollment**
- **Consistently balanced financial operations**
- **Manageable debt burden**
- **Steady growth in federal research funding**
- **Strong support from the State of Michigan relative to other Michigan public universities**
- **Management strength, well-articulated vision and strategy**

**Limitations**

- **Limited financial resources (i.e. endowment funds, non-general fund reserves and auxiliary fund balances)**
- **Narrow geographic student draw**
- **Relative dependence on State funding**

# Appendix C: Explanation of Credit Ratings

**Equivalent Ratings of Credit Rating Agencies**

| Moody's Investors Service | Standard and Poor's and Fitch | Rating Definition |
|---|---|---|
| Aaa | AAA | Demonstrates the strongest creditworthiness relative to other U.S. municipal or tax-exempt issues. |
| Aa1<br>Aa2<br>Aa3 | AA+<br>AA<br>AA- | Demonstrates very strong creditworthiness relative to other U.S. municipal or tax-exempt issues.(1) |
| A1<br>A2<br>A3 | A+<br>A<br>A- | Present above-average creditworthiness relative to other U.S. municipal or tax-exempt issues.(1) |
| Baa1<br>Baa2<br>Baa3 | BBB+<br>BBB<br>BBB- | Present average creditworthiness relative to other U.S. municipal or tax-exempt issues. (1) |
| Ba1 and below | BB+ and below | Non-investment grade. |

- **Wayne State University is rated "AA-" by Standard and Poor's and Fitch**
- **The lower the credit rating, the higher the cost of borrowing.**

(1) Moody's, S&P and Fitch apply numerical/symbolic modifiers to indicate where the obligation ranks in its generic rating category. Modifiers "1" and "+" indicate the obligation ranks in the higher end of its generic rating category, the modifier "2" indicates a mid-range ranking; and the modifiers "3" and "-" indicate a ranking in the lower end of the generic rating category.