



Salem State University

Ratio Calculations & Other Measurements

As of June 30, 2019

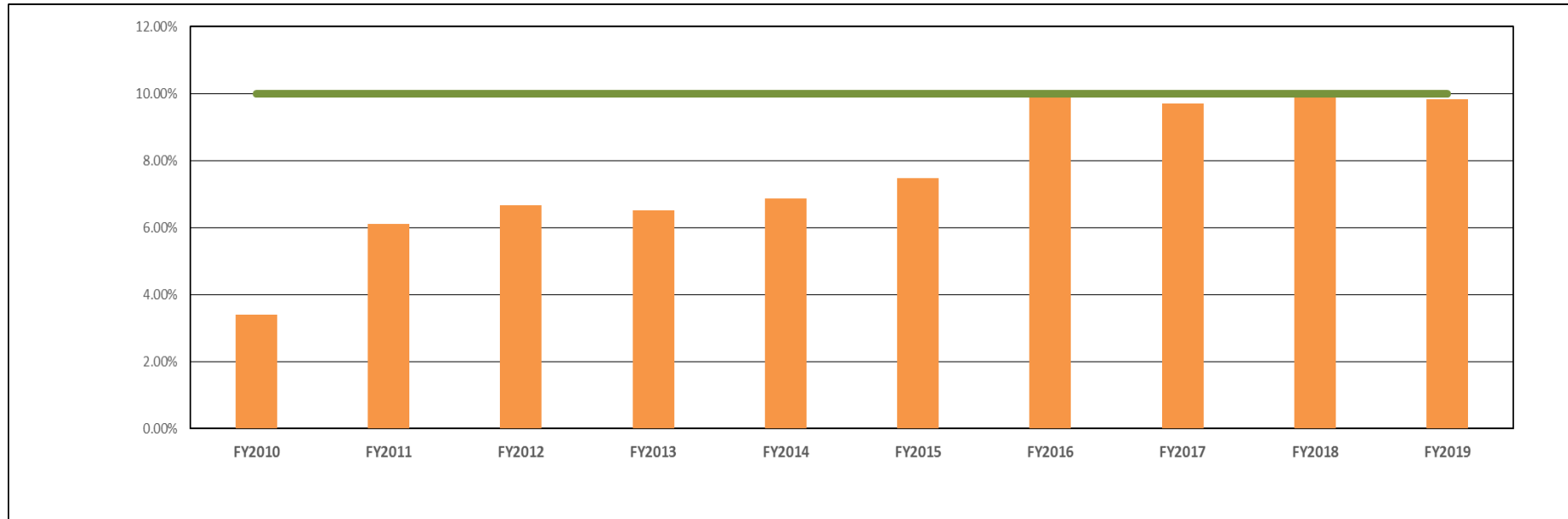
Introduction

- ❖ Calculations were prepared by PFM from FY2011 through FY2016. Salem State University prepared the calculations prior to 2011 and for FY2017 through FY2019 based on audited figures.
- ❖ Calculations do not include the Foundation or Assistance Corporation units of Salem State University.
- ❖ Calculations are based on Moody's scorecard methodology.
- ❖ Calculations include all debt that is owed for both on and off (MSCBA) the University's books.
- ❖ Calculations that require operating revenues include appropriations which is in accordance with Moody's. Whereas, the University's operating revenues as disclosed in our financial statements exclude appropriations from operating revenues in accordance with Governmental Accounting Standards.

Annual Debt Service Burden (Debt Service to Revenue)

Measures the University's ability to repay its debt obligations from operating revenue. Calculated as Total Annual Debt Service divided by Total Operating Revenue. As a general guideline, this ratio should be no higher than 10% as depicted by green line in the graph below.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Total Annual Debt Service	\$ 4,054,113	\$ 8,484,165	\$ 8,974,656	\$ 8,975,468	\$ 9,900,620	\$ 11,408,212	\$ 15,936,951	\$ 16,393,677	\$ 17,332,503	\$ 17,443,864
Total Operating Revenue	\$ 119,452,676	\$ 138,594,588	\$ 134,442,702	\$ 137,672,616	\$ 144,253,046	\$ 152,503,412	\$ 160,621,207	\$ 169,062,145	\$ 174,338,471	\$ 177,560,235
Debt Service to Revenue (Total Debt)	3.39%	6.12%	6.68%	6.52%	6.86%	7.48%	9.92%	9.70%	9.94%	9.82%



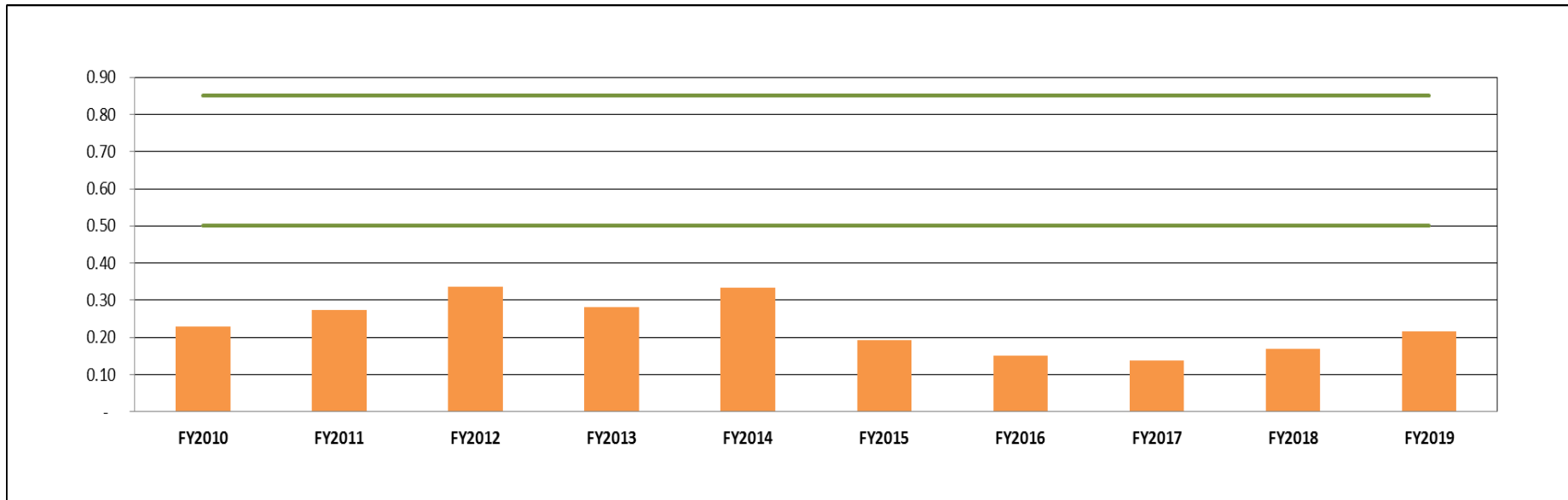
Salem State University Institutional Affordability: Annual Debt Service to Revenue

Note: Prior calculations of this measurement have been restated due to the prepayment of principal. These principal payments made in advance were in order to avoid a balloon payment that was due in the near future.

Spendable Cash & Investments to Total Debt

Measures the University's ability to repay its debt obligations from wealth that can be accessed over time or for a specific purpose. Calculated as cash and investments plus funds held in trust by others plus pledges receivable reported in permanently restricted net position less funds permanently restricted by third parties (permanently restricted net position) divided by total debt (principal) outstanding. This ratio should range between 0.50x and 0.85x as depicted by the green lines in the graph below.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Spendable Cash & Investments	\$ 31,834,231	\$ 39,206,761	\$ 52,914,753	\$ 43,509,864	\$ 57,902,039	\$ 47,933,092	\$ 36,855,794	\$ 33,188,471	\$ 37,431,682	\$ 46,802,832
Total Debt Outstanding	\$ 139,514,233	\$ 143,059,239	\$ 156,832,951	\$ 154,290,929	\$ 173,292,405	\$ 248,762,940	\$ 244,277,530	\$ 242,184,323	\$ 223,208,506	\$ 216,807,142
Spendable Cash & Investments to Total Debt	0.23	0.27	0.34	0.28	0.33	0.19	0.15	0.14	0.17	0.22



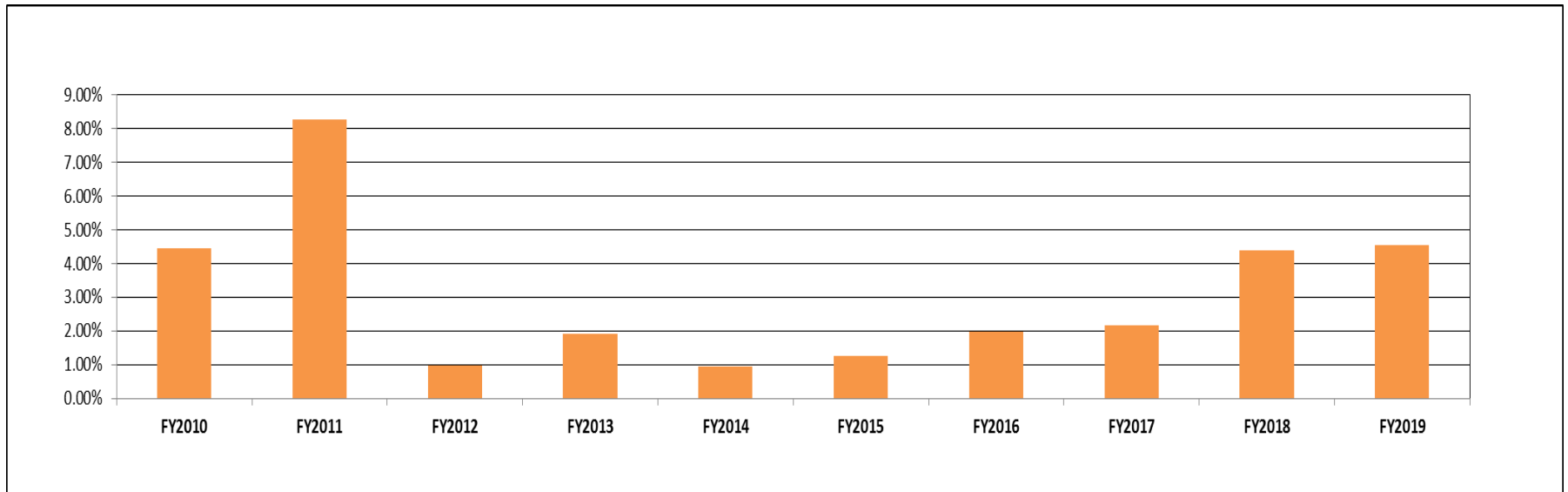
Salem State University - Spendable Cash & Investment to Total Debt

Note: Prior calculations of this measurement have been restated to exclude federal loans payable.

Operating Cash Flow Margin

Measures net income (before non-cash expenses) relative to operating revenue to indicate the amount of cash the University generates to support its strategic and capital investments. Calculated as operating revenue less operating expenses plus depreciation, and any additional, unusually large non-cash expenses (GASB 68 Pension and GASB 75 Other Post Employment Benefits), divided by operating revenue. This ratio should show an improving, positive trend over the course of multi-year period.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Operating Cash Flow	\$ 5,317,622	\$ 11,448,244	\$ 1,312,231	\$ 2,614,998	\$ 1,359,426	\$ 1,920,987	\$ 3,162,927	\$ 3,658,791	\$ 7,625,281	\$ 8,076,963
Operating Revenue	\$ 119,452,676	\$ 138,594,588	\$ 134,442,702	\$ 137,672,616	\$ 144,253,046	\$ 152,503,412	\$ 160,621,207	\$ 169,062,145	\$ 174,338,471	\$ 177,560,235
Operating Cash Flow Margin without GASB 68 and GASB 75	4.45%	8.26%	0.98%	1.90%	0.94%	1.26%	1.97%	2.16%	4.37%	4.55%



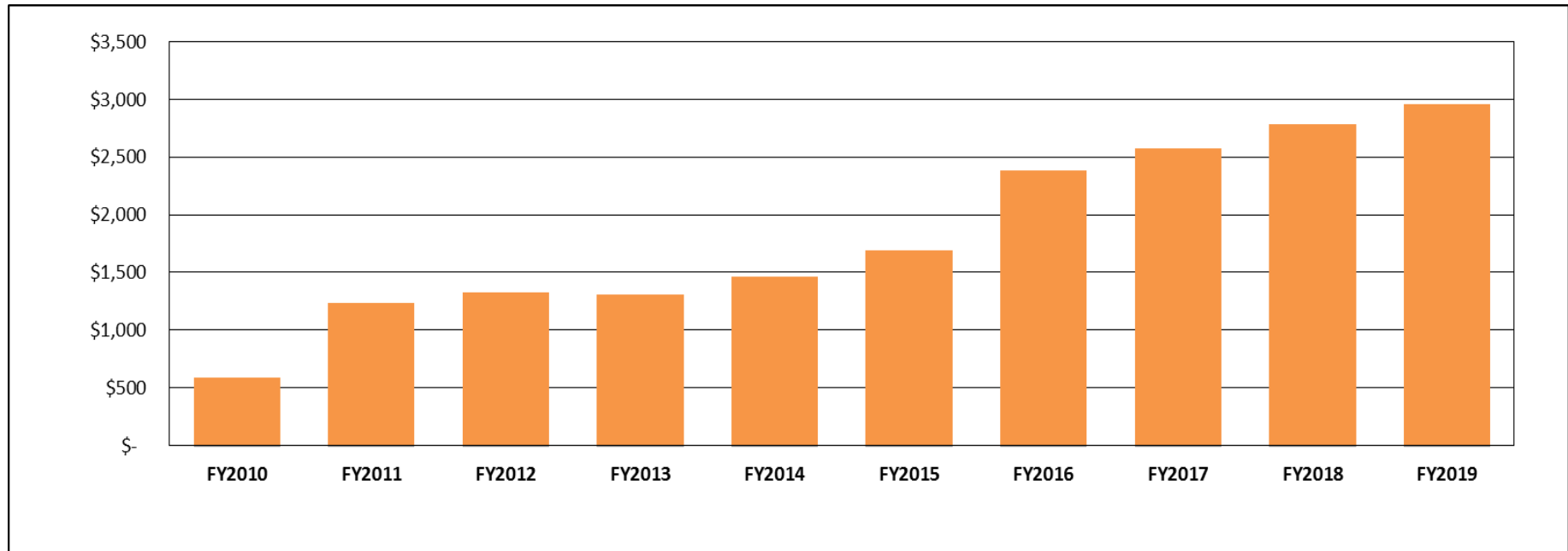
Salem State University Operations - Operating Cash Flow Margin (Without GASB 68 Pension and GASB 75 OPEB)

Note: The increases in FY2010 and FY2011 are primarily due to additional revenue from ARRA funding under a federal stimulus plan (\$3.9 million in FY2010 and \$7.4 million in FY2011). Additionally, during FY2011 the opening of Marsh Hall for the first time added 525 beds to the campus (\$4.2 million) and there was an increase in Appropriations (\$4.6 million) for FY2011.

Annual Debt Service to Full Time Equivalent (FTE) Undergraduate Enrollment

Measures the effective amount of the University's debt obligations that each undergraduate student is effectively covering in any given year. Calculated as Annual Debt Service divided by Undergraduate FTE.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Annual Debt Service (Total Debt)	\$ 4,054,113	\$ 8,484,165	\$ 8,974,656	\$ 8,975,468	\$ 9,900,620	\$ 11,408,212	\$ 15,936,951	\$ 16,393,677	\$ 17,332,503	\$ 17,443,864
Annual FTE Undergraduate Enrollment	6,887	6,865	6,773	6,870	6,753	6,757	6,674	6,358	6,231	5,893
Debt Service per FTE Undergraduate	\$ 589	\$ 1,236	\$ 1,325	\$ 1,306	\$ 1,466	\$ 1,688	\$ 2,388	\$ 2,578	\$ 2,782	\$ 2,960

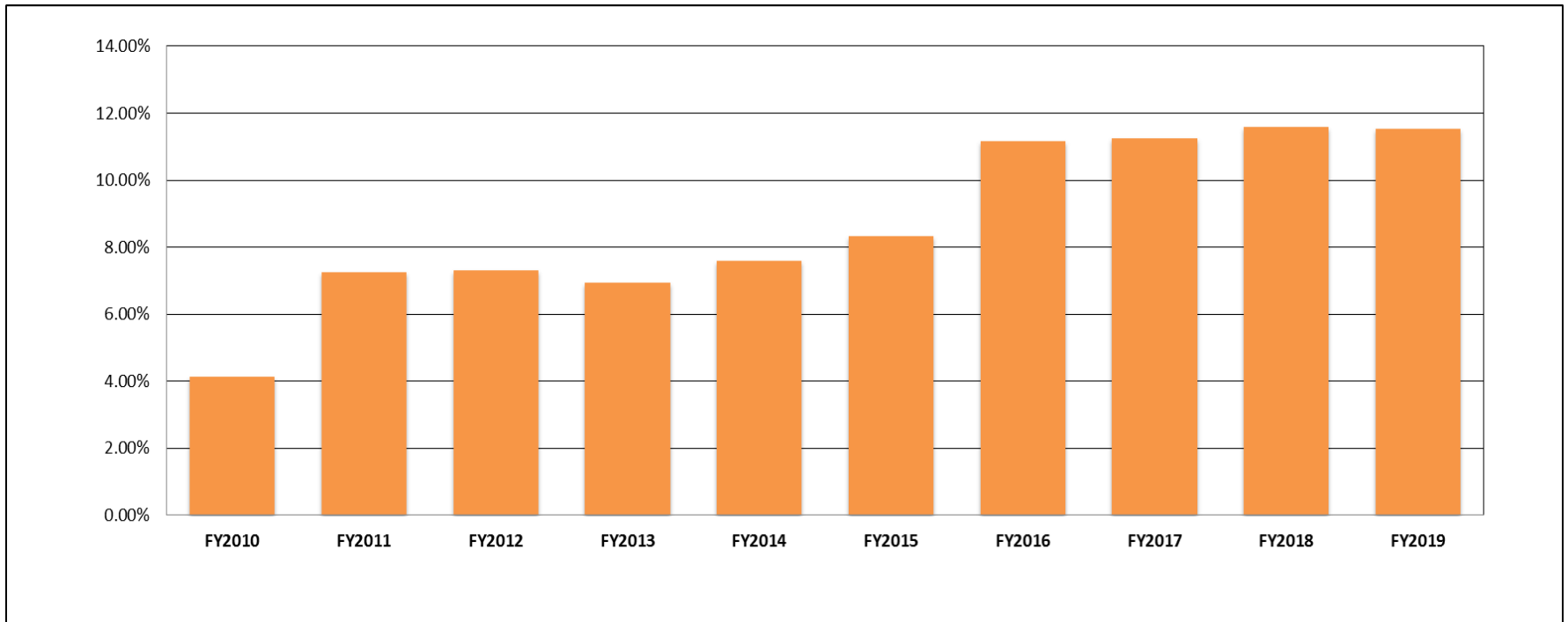


Salem State University Student Affordability - Annual Debt Service to FTE

Annual Debt Service per FTE as related to Undergraduate Tuition & Fees

Measures the proportion of the annual debt service as a percentage of Undergraduate student rates.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Annual Debt Service per FTE Undergrad	\$ 589	\$ 1,236	\$ 1,325	\$ 1,306	\$ 1,466	\$ 1,688	\$ 2,388	\$ 2,578	\$ 2,782	\$ 2,960
Tuition + Mandatory Fees + Average Housing + Meal Rates	\$ 14,220	\$ 17,014	\$ 18,116	\$ 18,804	\$ 19,294	\$ 20,252	\$ 21,391	\$ 22,934	\$ 24,009	\$ 25,679
Annual Debt Service per FTE Undergraduate	4.14%	7.26%	7.31%	6.95%	7.60%	8.34%	11.16%	11.24%	11.59%	11.53%

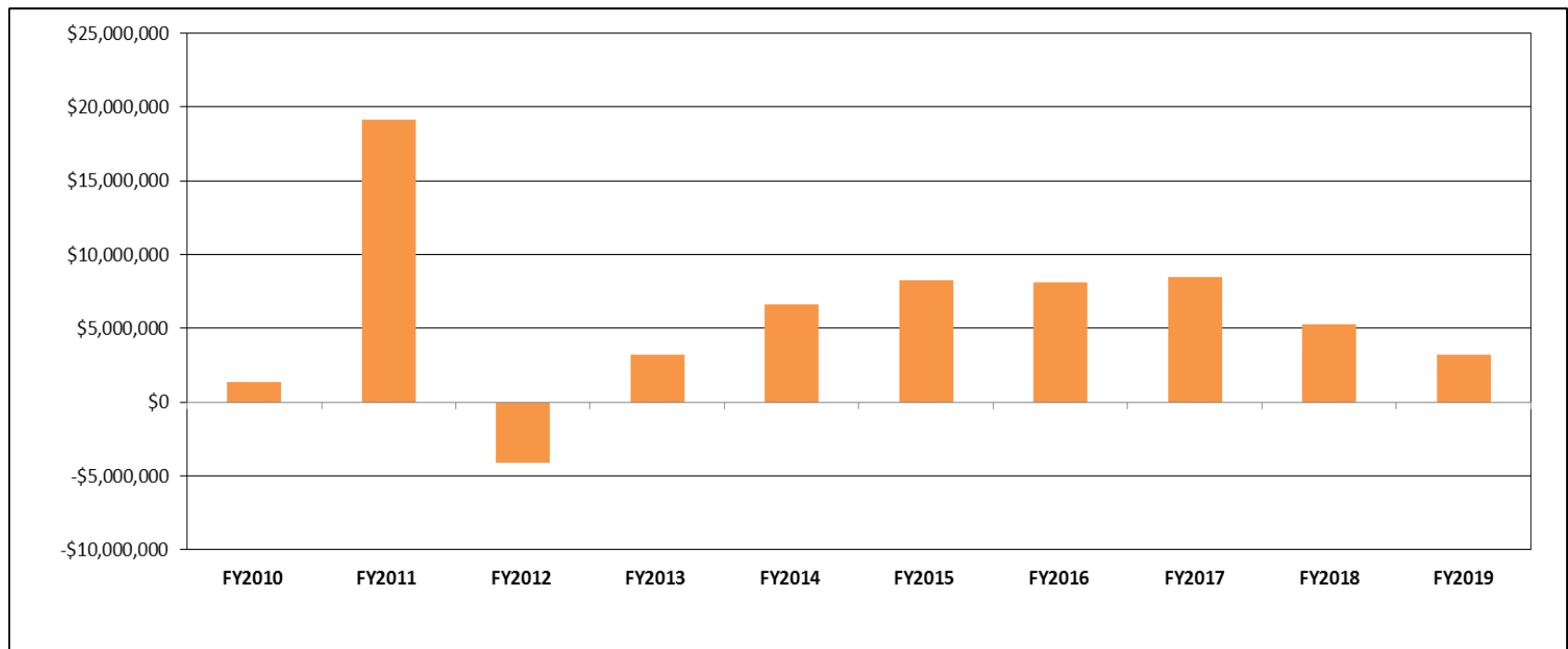


Salem State University Student Affordability - Annual Debt Service per FTE Undergraduate Tuition, Fees, Room & Board

Change in Operating Revenue

The increase or decrease in operating revenues from the prior year is depicted below.

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Change in Operating Revenue from Prior Year	\$ 1,368,996	\$ 19,141,912	\$ (4,151,886)	\$ 3,229,914	\$ 6,580,430	\$ 8,250,366	\$ 8,117,795	\$ 8,440,938	\$ 5,276,326	\$ 3,221,764



Change in Operating Revenue - Increase (Decrease)

Note: The significant amount of operating revenue change from FY 2011 to FY 2012 is primarily due to ARRA funding under a federal stimulus plan (\$7.5 million), the opening of Marsh Hall for the first time that added 525 beds to the campus (\$4.2 million) and an increase in Appropriations of (\$4.6 million).

Appendix

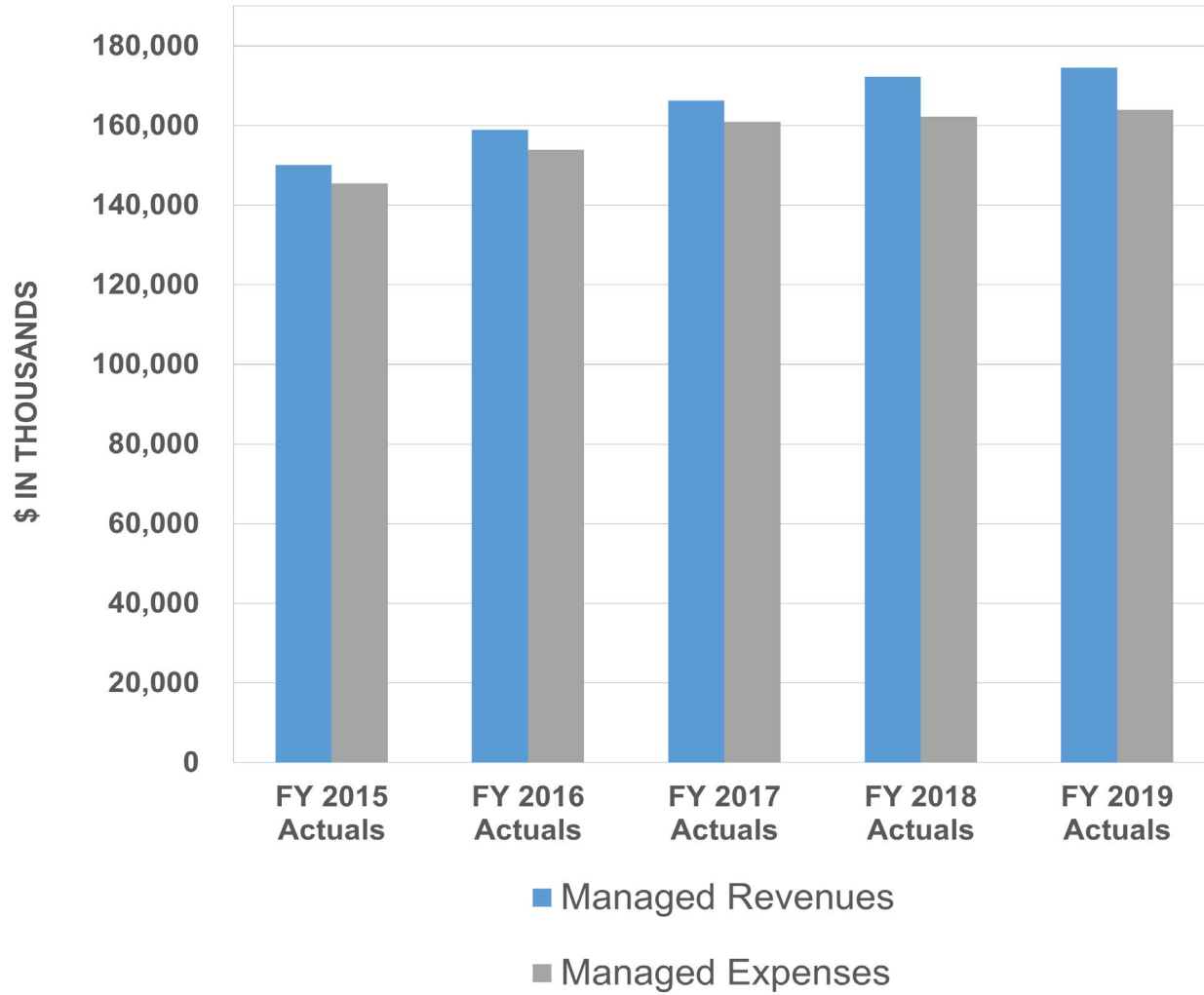
Managed Revenues and Expenses

Managed Revenue and Expenses FY 2015 thru FY 2019

(in thousands)

<u>Account Description</u>	<u>FY 2015 Year End</u>	<u>FY 2016 Year End</u>	<u>FY 2017 Year End</u>	<u>FY 2018 Year End</u>	<u>FY 2019 Year End</u>
<u>Managed Revenues:</u>					
Net Tuition and Fees	\$ 53,089	\$ 57,896	\$ 61,239	\$ 63,381	\$ 61,057
Federal, State, Private Grants	19,782	18,820	19,306	19,472	19,901
Auxiliary Enterprises	17,822	21,149	22,519	23,423	22,569
State General Appropriations	55,064	56,416	58,768	60,128	65,735
Other Revenue	4,365	4,592	4,420	5,859	5,291
Total Managed Revenues	150,122	158,873	166,252	172,263	174,553
<i>Year over Year Change</i>	<i>4.4%</i>	<i>5.8%</i>	<i>4.6%</i>	<i>3.6%</i>	<i>1.3%</i>
<u>Managed Expenses:</u>					
Compensation	107,510	112,436	118,273	117,761	118,997
Support	17,842	18,568	17,991	18,365	19,222
Facility-related	20,096	22,934	24,669	26,138	25,772
Total Managed Expenses	145,448	153,938	160,933	162,264	163,991
<i>Year over Year Change</i>	<i>5.4%</i>	<i>5.8%</i>	<i>4.5%</i>	<i>0.8%</i>	<i>1.1%</i>
Managed Net Income	4,674	4,935	5,319	9,998	10,562
Management Cash Flow Ratio	3.1%	3.1%	3.2%	5.8%	6.1%
<u>Non-Cash Revenues/(Expenses):</u>					
Capital Grants	846	783	7,711	2,950	2,067
Depreciation	(7,655)	(7,877)	(8,477)	(8,903)	(9,215)
Contributions to SSUAC	-	(911)	(896)	-	-
Unrealized Gains/Losses	(421)	(487)	738	(438)	414
Gains/Losses on Disposal of Plant Facilities	(941)	-	-	-	-
GASB 68 Pension	473	(4,368)	(4,711)	(3,583)	(3,755)
GASB 75 OPEB	-	-	-	(4,498)	(2,525)
Total Non-Cash Revenues/(Expenses)	(7,698)	(12,860)	(5,635)	(14,472)	(13,014)
<i>Year over Year Change</i>	<i>-191.1%</i>	<i>67.1%</i>	<i>-56.2%</i>	<i>156.8%</i>	<i>-10.1%</i>
Decrease in Net Position	\$ (3,024)	\$ (7,925)	\$ (316)	\$ (4,474)	\$ (2,452)

Five-Year Managed Revenue & Expense Trends



Five-Year Managed Revenue Trends

