

The Curators of the University of Missouri 2017 Annual Report Update of Financial and Operating Data (unaudited) Contained in Official Statement

Pledged Revenues of the System – Historical System Revenues

Historical Pledged System Revenues (\$ in thousands)

Fiscal Years Ended June 30,

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Operating Revenues					
Specifically Assessed Student	\$ 26,670	\$ 23,900	\$ 23,761	\$ 23,006	\$ 29,484
Fees					
Bookstore	55,645	54,503	56,010	54,673	47,662
Housing and Food Service,	106,435	107,547	115,097	116,622	107,753
Net					
Parking	14,895	11,523	13,768	13,284	13,297
Patient Medical Services, Net	844,747	873,638	942,160	1,012,410	1,126,221
Other	24,485	24,226	20,204	19,840	24,801
Total	1,072,878	1,095,337	1,171,000	1,239,835	1,349,218
Student System Facilities Fee	82,539	118,427	134,539	119,239	118,551
Total	<u>\$1,155,417</u>	<u>\$1,213,764</u>	<u>\$1,305,539</u>	<u>\$1,359,074</u>	\$1,467,769

University Health Care Summary Financial Information and Operating Data

University Health Care Summary Financial Information (\$\\$in thousands)

Fiscal Years Ended June 30,

	<u>2013</u>	<u>2014</u>	<u>2015 (1)</u>	<u>2016</u>	<u>2017</u>
Net patient service revenue	\$684,621	\$712,342	\$769,190	\$820,488	\$923,732
Other operating revenues	21,497	21,323	20,031	<u>19,463</u>	20,959
Total operating revenues	706,118	733,665	789,221	839,951	944,691
Operating expenses	672,309	705,286	730,897	<u>766,483</u>	<u>846,175</u>
Operating income (loss)	33,809	28,379	58,324	73,468	98,516
Net non-operating revenues	11,226	13,491	(19,264)	<u>(9,790)</u>	449
Income before contributions and transfers	\$45,035	\$41,870	\$39,060	\$63,678	\$98,965

⁽¹⁾ In December 2014, the University Health System closed the long-term acute care facility located in Mount Vernon, Missouri, due to reduced state funding for the facility, and sold the facility to the City of Mount Vernon. This resulted in a loss on disposal of \$10.1 million, and a reduction of state appropriations of \$5.0 million, which is reflected in net non-operating revenues.

University Health Care Sources of Patient Service Revenue

	Fiscal Years Ended June 30.					
Source of Payment	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	
Medicare	34.3%	36.1%	36.4%	36.1%	36.6%	
Medicaid	25.0	22.7	22.6	21.9	20.5	
Managed Care / Commercial Insurance	29.4	29.5	29.9	32.8	33.8	
Self Pay / Other	<u>11.3</u>	<u>11.7</u>	<u>11.1</u>	<u>9.2</u>	<u>9.1</u>	
Total	100.0%	100.0%	100.0%	100%	100%	

University Health Care Utilization Data

	Fiscal Years Ended June 30,				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Acute Staffed Beds (1)	545	550	538	569	595
Patient Days (1)	126,142	130,045	129,255	134,039	142,302
Average Daily					
Census (2)	354.5	356.3	354.1	367.2	389.9
Length of stay (days) ⁽²⁾	5.20	5.21	4.99	5.07	5.27
Discharges (2)	24,028	24,963	25,879	26,439	26,995
Outpatient Visits	829,947	843,551	840,300	877,341	915,257

⁽¹⁾ Effective November 1, 2014, University Health Care closed the Missouri Rehabilitation Center, in Mount Vernon, Missouri, for inpatient service, with outpatient services continuing on a contracted basis through December 31, 2014.

Historical Enrollment

The following table sets forth the historical enrollment for the University. Projected enrollment data is not readily available for all campuses and is therefore not included in this table.

Enrollment (Full- and Part-Time)

Historical Enrollment						
<u>Fall</u>	<u>Columbia</u>	Kansas City	Missouri S&T	St. Louis	Total	
2013	34,616	15,718	8,129	16,809	75,272	
2014	35,425	16,146	8,640	17,072	77,283	
2015	35,424	16,685	8,886	16,738	77,733	
2016	33,239	16,936	8,835	16,989	75,999	
2017	30,844	16,372	8,883	16,715	72,814	

⁽²⁾ Excludes normal newborns.

Student Applications, Acceptances, and Matriculations

The following table sets forth the number of applications, acceptances and matriculations for new undergraduate students of the University for the fall semesters 2013 through 2017:

<u>Campus</u>	<u>Fall</u>	Category	Applications	Acceptances	Matriculations
Columbia	2013	Freshmen	20,956	16,743	6,201
		Transfers	3,091	2,040	1,208
	2014	Freshmen	21,163	16,437	6,518
		Transfers	3,248	2,117	1,277
	2015	Freshmen	21,988	17,180	6,194
		Transfers	3,319	2,215	1,191
	2016	Freshmen	21,107	15,767	4,780
		Transfers	2,824	1,756	994
	2017	Freshmen	16,373	12,787	4,140
		Transfers	2,604	1,647	996
Kansas City	2013	Freshmen	4,469	2,926	1,079
		Transfers	3,081	2,046	1,396
	2014	Freshmen	4,356	2,788	1,063
		Transfers	2,586	1,757	1,274
	2015	Freshmen	4,400	2,764	1,025
		Transfers	2,939	2,018	1,315
	2016	Freshmen	5,108	3,184	1,195
		Transfers	2,868	1,900	1,246
	2017	Freshmen	5,074	3,263	1,220
		Transfers	2,833	1,848	1,184
Missouri S&T	2013	Freshmen	3,041	2,657	1,263
		Transfers	829	552	427
	2014	Freshmen	3,577	3,071	1,291
		Transfers	876	613	460
	2015	Freshmen	3,592	3,164	1,489
		Transfers	826	579	430
	2016	Freshmen	4,349	3,334	1,482
		Transfers	793	558	401
	2017	Freshmen	3,890	3,248	1,426
		Transfers	682	510	352
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St. Louis	2013	Freshmen	2,444	1,348	501
	2014	Transfers	3,778	2,617	1,811
	2014	Freshmen	2,441	1,357	532
	2015	Transfers	3,700	2,569	1,757
	2015	Freshmen	2,430	1,389	526
	2016	Transfers	3,174	2,240	1,571
	2016	Freshmen	2,628	1,413	451
	2017	Transfers	3,257	2,221	1,580
	2017	Freshmen	2,716	1,563	495
		Transfers	3,237	2,191	1,540

Undergraduate Student Fees

The following table sets forth the total annual Academic, Educational and Required Fees charged to each full-time undergraduate student at the University who is a resident of Missouri for each of the four campuses for the academic years 2013-2014 through 2017-2018. Fiscal year 2018 total tuition and required fees will increase at 2.8% for MU and 2.1% at UMKC, S&T and UMSL.

Academic Year	<u>Columbia</u>	Kansas City	Missouri S&T	St. Louis
2013-2014	\$9,415	\$9,456	\$9,510	\$9,474
2014-2015	9,433	9,476	9,529	9,474
2015-2016	9,509	9,553	9,620	10,065
2016-2017	9,518	9,563	9,629	10,065
2017-2018	9,787	9,763	9,831	10,275

The annual rate of increase in undergraduate tuition and required fees charged to all Missouri resident students is governed by Missouri Senate Bill 389 (SB389). SB389 limits annual tuition and required fee increases to a rate no greater than the consumer price index (CPI). If tuition and fees are increased by more than the CPI, the University could be subject to a penalty of up to 5% of the current year State operating appropriation, unless a waiver is granted by the Commissioner of the Missouri Department of Higher Education.

Student Quality Indicators

The academic demands of the curriculum require that students admitted possess a satisfactory preparatory education. The following tables set forth the high school class rank of freshmen entering the University during the Fall 2017 term and the average ACT test scores for the last five years for incoming freshmen for each campus of the University, the State of Missouri, and the United States.

High School Class Rank of Incoming Freshmen, Fall 2017

High School Class Rank	<u>Columbia</u>	Kansas City	Missouri S&T	St. Louis
Top 10%	29%	31%	39%	27%
Top 20%	50	51	63	50
Top 40%	79	78	88	81

Average First Time Freshman ACT

<u>Fall</u>	<u>Columbia</u>	Kansas City	Missouri S&T	St. Louis	State of Missouri	National
2013	25.7	24.1	28.0	24.1	21.6	20.9
2014	25.9	24.4	28.4	24.1	21.8	21.0
2015	26.0	24.8	28.1	24.1	21.7	21.0
2016	26.0	24.5	28.1	24.0	20.2	20.8
2017	25.9	24.7	28.1	24.4	20.4	21.0

Financial Aid

The following table sets forth the total Financial Aid awarded by the University for fiscal year 2017, the number of students receiving financial aid and the average amount awarded per student.

Financial Aid

	<u>Columbia</u>	Kansas City	Missouri S&T	St. Louis	Total
Total Financial Aid Awarded ⁽¹⁾	\$464,653,355	\$194,188,662	\$128,781,186	\$122,936,487	\$910,559,690
Aid from Institutional Sources	\$194,429,747	\$48,574,866	\$55,575,800	\$33,795,665	\$332,376,078
Students Receiving Aid	26,685	11,057	7,708	10,760	56,210
Total Financial Aid Awarded Per	\$17,413	\$17,563	\$16,707	\$11,425	\$16,199
Student					

Financial Aid includes the Scholarships and Allowances included in the University's Statement of Revenues, Expenses and Changes in Net Position as well as student loans and federal aid.

Full-Time Ranked Faculty

The following table sets forth for the last five fiscal years the number of full-time ranked faculty, and the percentages who are tenured and hold terminal degrees for each campus of the University.

<u>Campus</u>	Academic <u>Year</u>	Full-Time Ranked Faculty	Percentage of Faculty Tenured	Percentage of Faculty With <u>Terminal</u> <u>Degrees</u>
Columbia	2012-2013	1,884	48	91
	2013-2014	1,903	48	90
	2014-2015	1,936	48	89
	2015-2016	1,878	45	89
	2016-2017	1,906	45	89
Kansas City	2012-2013	681	51	91
J	2013-2014	698	49	89
	2014-2015	668	49	88
	2015-2016	669	49	87
	2016-2017	687	46	86
Missouri S&T	2012-2013	325	62	96
	2013-2014	333	62	95
	2014-2015	351	63	95
	2015-2016	368	60	93
	2016-2017	382	58	93
St. Louis	2012-2013	456	50	80
	2013-2014	450	54	82
	2014-2015	449	51	79
	2015-2016	444	50	79
	2016-2017	431	47	78

University Investments

Investment policies are established by the Board. The policies ensure that funds are managed in accordance with the Revised Statutes of Missouri and prudent investment practices. The use of external investment managers has been authorized by the Board. Substantially all University cash and investments are managed centrally, primarily in the General Pool and Endowment Pool, each as described below.

General Pool. The General Pool represents the University's cash and reserves, including, but not limited to, operating funds, auxiliary funds, service operations funds, self-insurance funds, debt service funds, and plant funds. Approximately 36% of the General Pool consists of high-grade, short-duration, fixed income securities and commercial paper, primarily managed by the University, all of which are available to support the liquidity requirements of the University's variable rate bonds and commercial paper notes (for which the University provides self-liquidity). The General Pool had a market value of approximately \$2.1 billion as of June 30, 2017.

Endowment Pool. When appropriate and permissible, endowment and similar funds are pooled for investment purposes, with the objective of achieving long-term returns sufficient to preserve principal by protecting against inflation and to meet endowment spending targets. The Endowment Pool, currently managed by 64 investment managers, had the long-term target asset mix and actual asset mix as of June 30, 2017 as set forth on the following table.

Endowment Pool – Asset Mix

<u>Investment Sectors</u>	Target Asset Mix	Actual Asset Mix June 30, 2017
Global equity	43.0%	45.5%
Real Estate	10.0	8.4
Risk Parity	10.0	10.0
Private equity	10.0	10.1
Opportunistic Debt	7.0	8.6
Absolute Return Funds	6.0	0.4
Emerging Markets Debt	5.0	3.7
Global fixed Income	4.0	6.1
Inflation-linked bonds	3.0	3.8
Commodities	2.0	1.8
U.S. Treasuries	0.0	0.3
Cash	0.0	1.3

The market values of the Endowment Pool as of June 30th for the last five fiscal years are set forth below.

University of Missouri System Endowment Pool

As of June 30,	Market Value
2013	\$1,135,525,000
2014	1,326,526,000
2015	1,405,453,000
2016	1,364,410,000
2017	1,543,307,000

At June 30, 2017, the Endowment Pool had a market value of approximately \$1.54 billion, compared to \$1.36 billion at June 30, 2016. The Endowment Pool includes true endowment and quasi endowment funds. The market value of certain investments in the Endowment Pool (primarily, absolute return, private equity, and real estate) is reported on a lagged basis of one to three months. For the fiscal year ended June 30, 2017, the Endowment Pool had an annual return of 13.7%.

The Endowment Pool's spending policy was revised in fiscal year 2012 to distribute 4.5% of the trailing 28-quarter average of the endowment's total market value. The change from 5% to 4.5% was phased in over several years to minimize any impact on annual distributions. In addition, the University distributes 1% of the trailing 28-quarter average of the endowment's total market value to support internal endowment administration and development functions.

Starting in fiscal year 2018, the University will begin transitioning the spending rate from 4.5% to 4.0% in a methodical manner over a period not to exceed the seven years ended June 30, 2024. Upon completion of this transition, the Endowment's spending policy will apply a rate of 4.0% to a base equal to the 28-quarter trailing average market value as of December 31st of the prior year. Also, starting in fiscal year 2018, the University will increase its Endowment administrative fee from 1.0% to 1.25%. The administrative fee is calculated by applying a rate of 1.25% to the base of the 28-quarter trailing average market value as of December 31st.

Retirement Trust and OPEB Trust

The University operates the University of Missouri Retirement, Disability and Death Benefit Plan (the "Retirement Plan") and the University of Missouri Other Post-employment Benefits Plan (the "OPEB Plan" and, collectively with the University Retirement Plan, the "Plan"), which are single employer, defined benefit plans. The assets of the Plan are held in trust and are restricted for use only to pay for benefits and expenses of the Plan. Therefore, the net position and changes in net position are reflected separately from the operations of the University.

The table below sets forth comparative summary financial statements for the Plan as of and for the three fiscal years ended June 30, 2017.

Summary Financial Information of the Plan (in thousands)

	Fiscal Y	ears Ended Jun	e 30,
Net Assets Held for Plan	<u>2015</u>	<u>2016</u>	<u>2017</u>
Assets:			
Cash and Cash Equivalents and Collateral	¢ 260.552	Ф 222 207	¢ 500.767
for Securities Lending	\$ 260,553	\$ 332,297	\$ 500,767
Investments and Related Receivables	<u>3,314,664</u>	3,085,713	<u>3,253,829</u>
Total Assets	3,575,217	<u>3,418,010</u>	<u>3,754,596</u>
Liabilities:			
Payables and Accrued Liabilities	101,730	63,579	71,263
Collateral for Securities Lending	<u>135,813</u>	<u>98,660</u>	<u>161,264</u>
Total Liabilities	237,543	162,239	232,527
Net Assets Held in Trust for Retirement and OPEB	\$3,337,674	<u>\$3,255,771</u>	<u>\$3,522,069</u>
Changes in Plan Net Assets			
Net Revenues and Other Additions:			
Net Investment Income	\$ 35,538	\$ 10,045	\$ 368,419
Contributions and other Revenues	160,302	157,481	147,993
Total Net Revenues and Other Additions	195,840	<u>167,526</u>	516,412
Expenses and Other Deductions:			
Administrative Expenses	3,153	4,301	3,207
Payments to Retirees and Beneficiaries	239,339	245,128	246,907
Total Expenses and Other Deductions	242,492	249,429	250,114
Increase (Decrease) in Net Position Held in Trust for Retirement and OPEB	(46,652)	(81,903)	266,298
Net Position Held in Trust for Retirement and OPEB, Beginning of Year	3,384,326	<u>3,337,674</u>	3,255,771
Net Position Held in Trust for Retirement and OPEB, End of Year	\$3,337,674	<u>\$3,255,771</u>	<u>\$3,522,069</u>

Net position held for the Plan increased by \$266.3 million, from \$3.26 billion at fiscal year ended June 30, 2016 to \$3.52 billion at fiscal year ended June 30, 2017. The increase is a result of a \$358.4 million increase in net investment income for fiscal year 2017 compared to fiscal year 2016.

For the year ended June 30, 2017, the Plan experienced a total money-weighted investment return of 11.0% compared to 0.3% for the year ended June 30, 2016. The time-weighted return for the fiscal year ended June 30, 2017 was 12.4%, compared to the benchmark index of 9.9%. The allocation of the Retirement Plan investments and the time-weighted return on those investments for the fiscal year ended June 30, 2017 is shown in the following table:

Plan Investments Fiscal Year ended June 30, 2017

	Asset Distribution	Total Return	Benchmark Index Return (1)
Global Equity	39.8%	21.7%	18.1%
Real Estate	7.0	9.8	7.4
Global Fixed Income	5.3	5.0	(2.2)
Opportunistic Debt	15.4	7.7	6.4
Absolute Return Funds,	0.4	8.4	4.2
Inflation-Linked Bonds	4.8	(1.0)	(0.1)
Emerging Markets Debt	4.9	7.3	4.8
Risk Parity	9.3	5.9	5.2
Cash	0.8	1.5	0.5
Commodities	2.8	(7.8)	(8.1)
U.S. Treasuries	0.3	-	-
Private Equity	9.2	16.2	12.5
Total (Composite)	100.0	12.4	9.9

⁽¹⁾ Benchmark index returns are calculated by independent investment consultants based on returns of similar security portfolios.

The following table sets forth the schedule of funding progress for the Retirement Plan as of the five most recent actuarial valuation dates:

Retirement Plan – Schedule of Funding Progress (unaudited; \$ in thousands)

Actuarial Valuation Date Oct 1	Actuarial Valuation of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL / (Excess Funding) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL (Excess) as a % of Covered Payroll ([b-a]/(c)
2012	\$2,790,622	\$3,308,967	\$518,345	84.3%	\$1,046,075	49.6%
2013	2,950,555	3,463,026	512,470	85.2	1,078,347	47.5
2014	3,160,999	3,637,426	476,427	86.9	1,109,431	42.9
2015	3,289,216	3,763,247	474,031	87.4	1,129,784	42.0
2016	3,433,435	3,892,721	459,286	88.2	1,144,412	40.1

In fiscal year 2014, the University implemented Governmental Accounting Standards Board Statement Number 68. As of June 30, 2017, the net pension liability was \$522,264,000.

The following table compares the actuarial valuation of assets as of each of the five most recent valuation dates to the market value of the Retirement Plan assets as of those dates, in dollars, and the funded ratio of the Retirement Plan based on both actuarial value and market value as of those dates.

Retirement Plan – Actuarial Value of Assets Compared to Market Value (unaudited; \$ in thousands)

Oat 1	Actuarial Valuation of	Market Value of	% of Actuarial Value to	Funded Ratio ⁽¹⁾ (Actuarial	Funded Ratio (2)
Oct 1	Assets	Assets	Market Value	Value)	(Market Value)
2012	\$2,790,622	\$2,788,322	100.1%	84.3%	84.3%
2013	2,950,555	3,051,916	96.7	85.2	88.1
2014	3,160,999	3,244,105	97.4	86.9	89.2
2015	3,289,216	3,109,173	105.8	87.4	82.6
2016	3,433,435	3,303,240	103.9	88.2	84.9

⁽¹⁾ Actuarial value of assets divided by actuarial accrued liability

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⁽²⁾ Market value of assets divided by actuarial accrued liability