

FY19-24 Financial Forecast

Board of Trustees: Administration & Finance Committee

March 27, 2019



University of Massachusetts

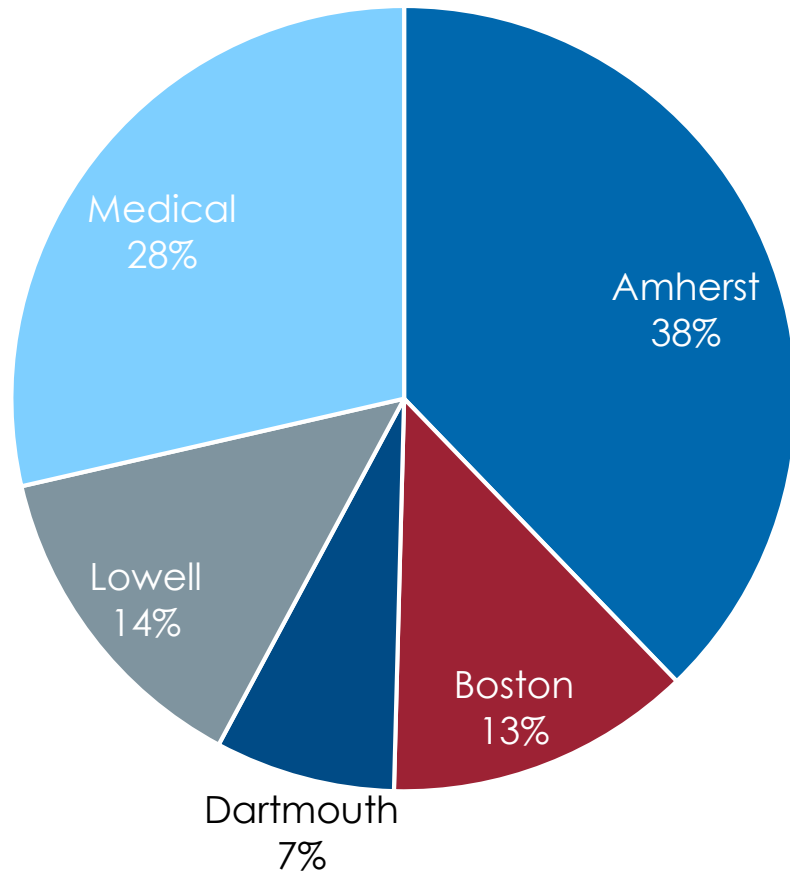
Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

Agenda

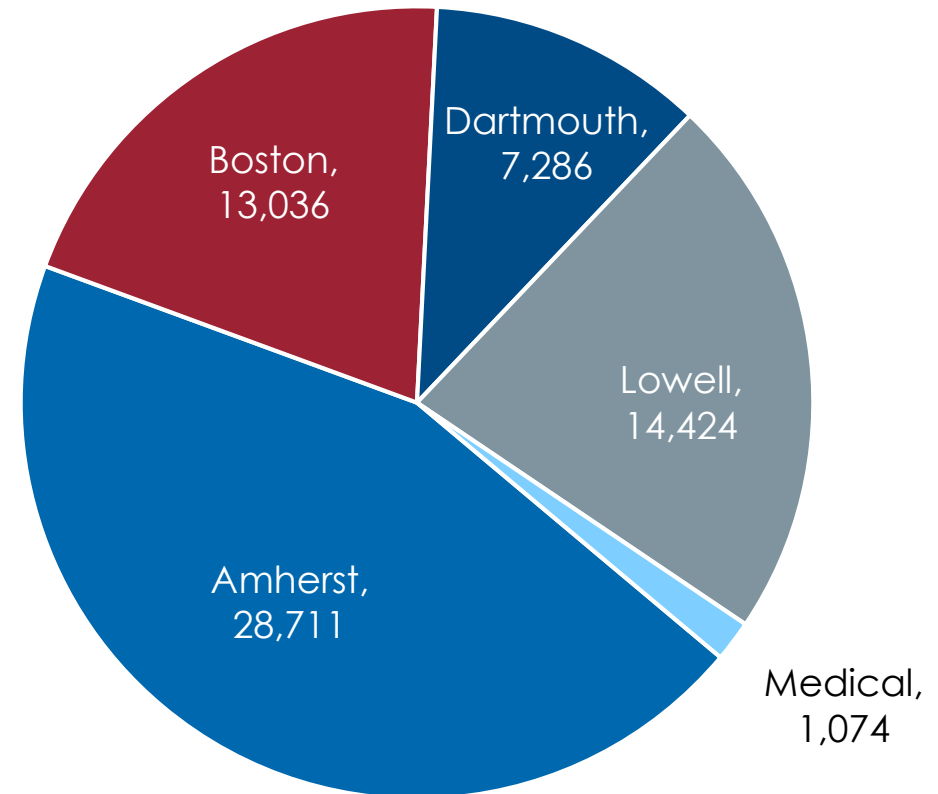
- **Financial Forecast Overview**
- **Highlights & Key Take Aways**
- **Revenues**
- **Expenses**
- **Ratios**
- **Appendices: Campus Data**

University Overview

FY18 Revenue = \$3.4 billion
(\$ in millions below)



FY18 Student FTEs = 64,531



Financial Forecast Overview

- Annual re-fresh of the 5-year forecast of revenues and expenses used for:
 - Campus 5-year Strategic Plans
 - University 5-year Capital Plan
 - Annual State Funding Request
 - Communication to Stakeholders – State, Rating Agencies, Granting Entities

- Include Enhancements:
 - Enrollment views
 - Debt Service Structure
 - Student & Staffing Ratios

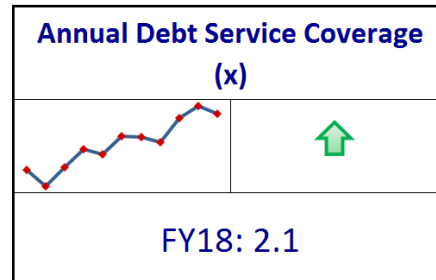
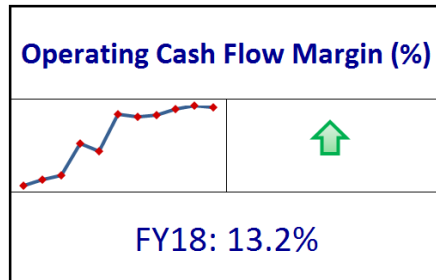
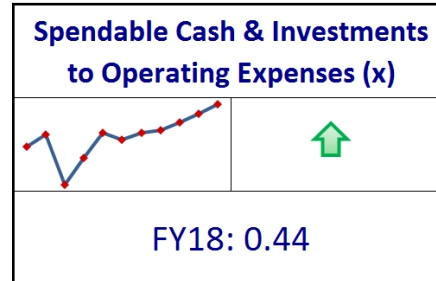
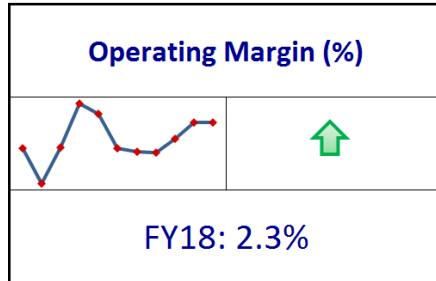
Highlights & Key Take Aways

Highlights

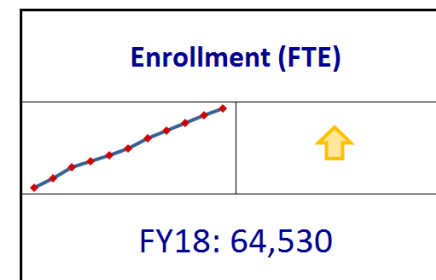
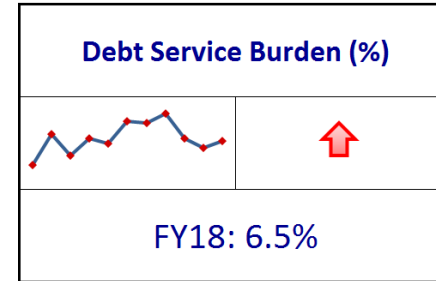
- Improved long term financial stability through deliberate growth
- Austere financial plan with a steady state – no major expansions assumed
- Enrollment growth considered in light of the demographic shift in the northeast
- State support tied to collective bargaining
- Tuition increases remain competitive
- Investments in capital are leveling off but still highly leveraged
- Unwavering commitment to achieving an Operating Margin of 2.0% maintaining Debt Service Burden at <8.0%
- Implementation of Shared Services & its savings being reviewed for impact on the forecast

Key Take Aways

Improving



On Watch



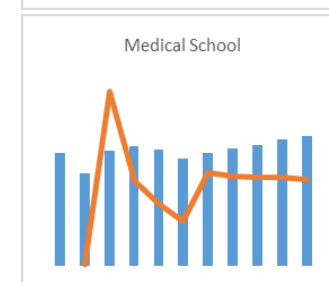
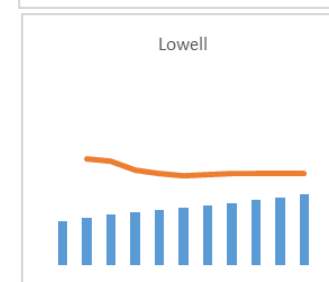
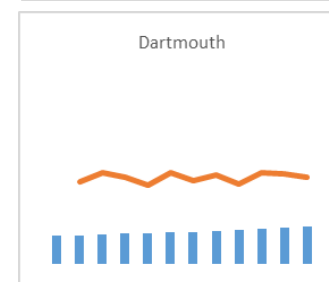
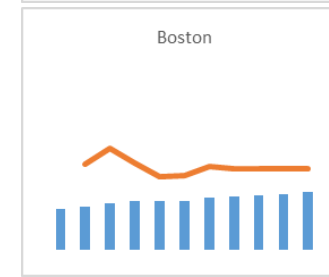
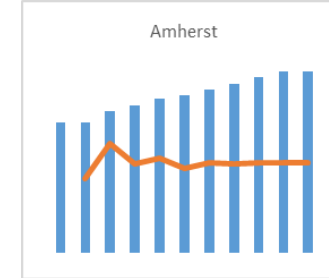
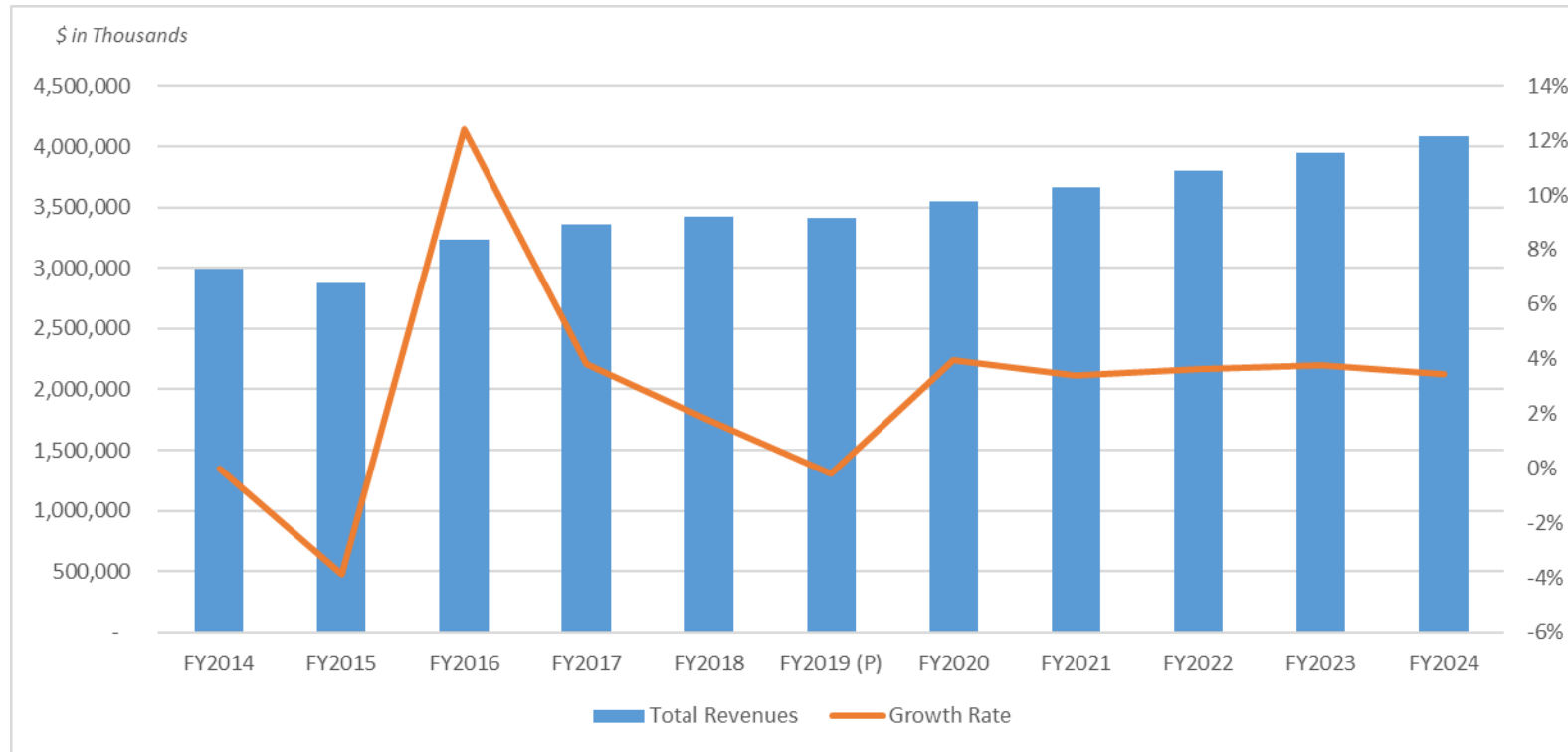
Revenue

Revenue: Modeling Assumptions

Revenue Assumptions	FY20-24
State Appropriation	0.0%
State Collective Bargaining	2%
Modeled Tuition - In State UG	No more than 2.5%
Modeled Tuition - Out of State UG	3%
Modeled Tuition - Grad	No more than 3%
Mandatory - Tech Fee	Case by Case
Mandatory - SAF	Case by Case
Non-Mandatory Fees	No more than 3%

- State Appropriation: Base increase to reflect State portion of assumed collective bargaining increase starting in FY18 which is estimated at \$11-12 million annually.
- Tuition increases:
 - In State Undergraduate = 2.5%
 - Out of State and Graduate = 3.0%
- Enrollment: Increase of 6% over the projection period (1.1% annual average) based on campus plans and capacity.

University Revenue: Annual Changes

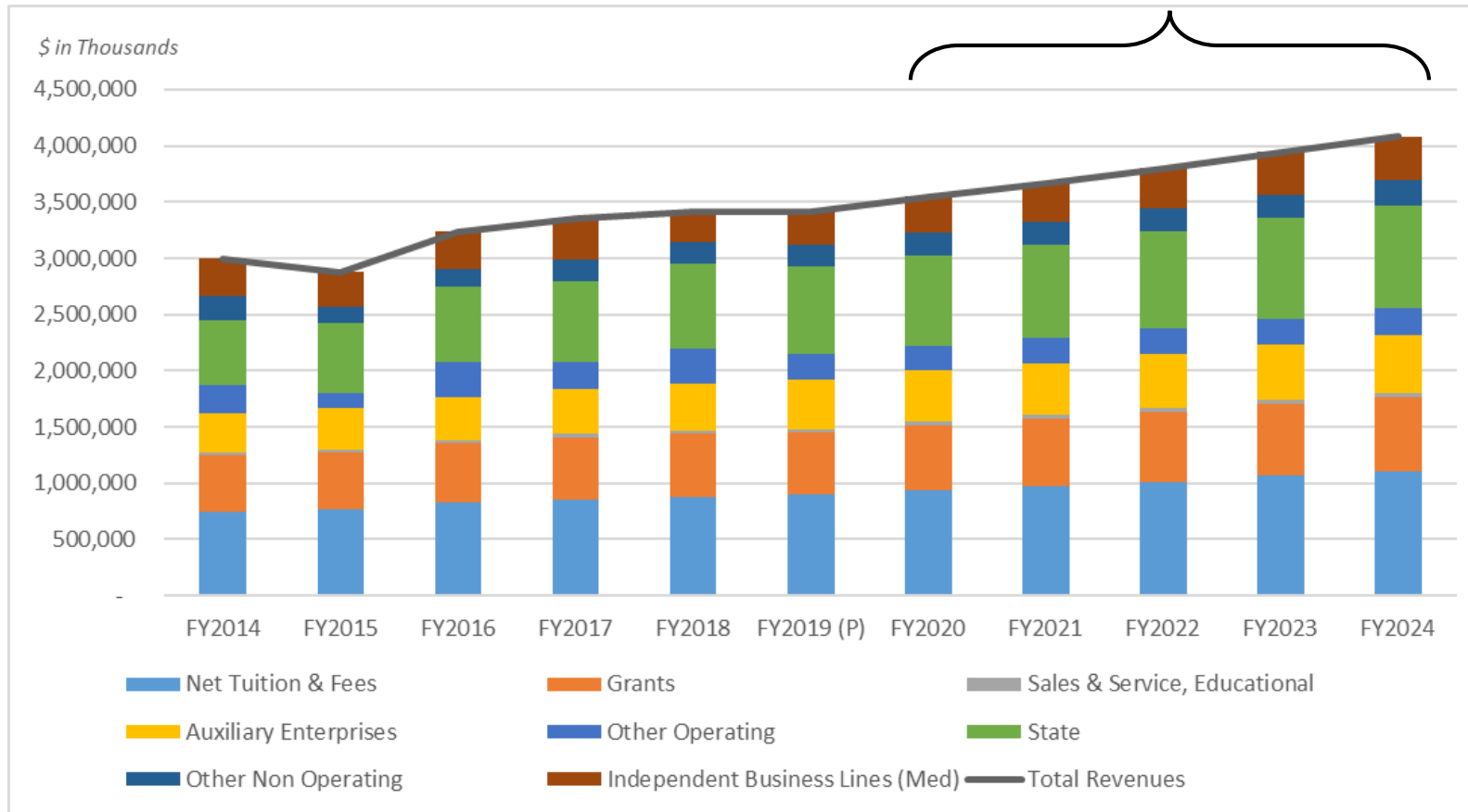


University Revenue: by Revenue Category

\$ in Thousands	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
Gross Tuition & Fees	939,019	987,384	1,070,841	1,136,540	1,185,826	1,237,733	1,222,461	1,276,051	1,326,128	1,381,801	1,442,280	1,502,262	
<i>Gross Tuition & Fees Growth</i>		5.2%	8.5%	6.1%	4.3%	4.4%	3.1%	4.4%	3.9%	4.2%	4.4%	4.2%	4.2%
Tuition Discounts	(198,903)	(222,164)	(244,025)	(288,708)	(311,000)	(328,164)	(326,097)	(343,204)	(355,880)	(367,815)	(379,992)	(392,352)	
<i>Tuition Discounts Growth</i>		11.7%	9.8%	18.3%	7.7%	5.5%	4.9%	5.2%	3.7%	3.4%	3.3%	3.3%	3.8%
Online Revenue	85,100	89,600	96,000	104,000	113,200	125,759	125,759	127,802	135,242	145,902	159,249	173,909	
<i>Online Growth</i>		5.3%	7.1%	8.3%	8.8%	11.1%	11.1%	1.6%	5.8%	7.9%	9.1%	9.2%	6.7%
Net Tuition & Fees	740,116	765,220	826,816	847,832	874,825	909,569	896,365	932,847	970,248	1,013,986	1,062,288	1,109,910	
<i>Net Tuition & Fees Growth</i>		3.4%	8.0%	2.5%	3.2%	4.0%	2.5%	4.1%	4.0%	4.5%	4.8%	4.5%	4.4%
Grants	511,694	510,741	528,352	560,081	560,990	560,862	555,975	577,726	597,563	617,898	638,049	655,248	
<i>Grants Growth</i>		-0.2%	3.4%	6.0%	0.2%	0.0%	-0.9%	3.9%	3.4%	3.4%	3.3%	2.7%	3.3%
Sales & Service, Educational	21,792	25,601	27,500	28,910	30,591	27,230	28,582	33,724	34,472	35,226	35,966	36,866	
<i>Sales & Service, Educational Growth</i>		17.5%	7.4%	5.1%	5.8%	-11.0%	-6.6%	18.0%	2.2%	2.2%	2.1%	2.5%	5.4%
Auxiliary Enterprises	349,485	362,193	383,281	400,822	416,733	434,685	439,686	457,191	467,191	483,461	499,859	515,549	
<i>Auxiliary Growth</i>		3.6%	5.8%	4.6%	4.0%	4.3%	5.5%	4.0%	2.2%	3.5%	3.4%	3.1%	3.2%
Other Operating	250,665	136,954	307,286	233,717	311,119	234,955	231,786	220,762	223,882	225,667	228,393	234,619	
<i>Other Operating Growth</i>		-45.4%	124.4%	-23.9%	33.1%	-24.5%	-25.5%	-4.8%	1.4%	0.8%	1.2%	2.7%	0.3%
State	570,618	621,200	669,748	720,817	751,894	760,518	776,386	803,220	831,511	860,340	889,880	920,019	
<i>State Growth</i>		8.9%	7.8%	7.6%	4.3%	1.1%	3.3%	3.5%	3.5%	3.5%	3.4%	3.4%	3.5%
Other Non Operating	214,767	144,964	162,741	195,089	197,142	186,568	188,710	196,117	200,798	205,746	212,497	219,373	
<i>Other Non-Operating Growth</i>		-32.5%	12.3%	19.9%	1.1%	-5.4%	-4.3%	3.9%	2.4%	2.5%	3.3%	3.2%	3.1%
Independent Business Lines (Med)	335,527	312,077	330,259	371,618	274,555	294,013	294,013	325,368	342,067	359,119	377,260	388,318	
<i>Independent Business Lines Growth</i>		-7.0%	5.8%	12.5%	-26.1%	7.1%	7.1%	10.7%	5.1%	5.0%	5.1%	2.9%	5.8%
Total	2,994,664	2,878,948	3,235,982	3,358,886	3,417,849	3,408,400	3,411,503	3,546,955	3,667,733	3,801,444	3,944,191	4,079,902	
<i>Total Growth</i>		-3.9%	12.4%	3.8%	1.8%	-0.3%	-0.2%	4.0%	3.4%	3.6%	3.8%	3.4%	3.6%

University Revenue: Diverse Sources

Average Annual Growth FY20-24:
\$134 million or 3.6%



Revenue: by Campus

\$ in Thousands	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
Amherst	1,081,421	1,082,614	1,174,441	1,216,054	1,276,643	1,299,086	1,308,229	1,350,294	1,397,515	1,450,393	1,508,117	1,566,334	
Amherst Growth		0.1%	8.5%	3.5%	5.0%	1.8%	2.5%	3.2%	3.5%	3.8%	4.0%	3.9%	3.7%
Boston	362,033	373,284	406,402	423,334	426,589	436,969	431,357	452,223	464,373	477,065	490,269	504,078	
Boston Growth		3.1%	8.9%	4.2%	0.8%	2.4%	1.1%	4.8%	2.7%	2.7%	2.8%	2.8%	3.2%
Dartmouth	227,596	231,692	241,281	248,385	250,628	260,560	255,891	269,395	273,073	283,905	294,605	303,520	
Dartmouth Growth		1.8%	4.1%	2.9%	0.9%	4.0%	2.1%	5.3%	1.4%	4.0%	3.8%	3.0%	3.5%
Lowell	361,901	390,156	418,400	439,843	459,042	473,410	475,760	494,870	515,341	537,336	560,478	583,630	
Lowell Growth		7.8%	7.2%	5.1%	4.4%	3.1%	3.6%	4.0%	4.1%	4.3%	4.3%	4.1%	4.2%
Central	101,757	99,843	107,621	117,659	119,219	123,281	120,708	120,749	122,484	124,253	126,059	127,900	
Central Growth		-1.9%	7.8%	9.3%	1.3%	3.4%	1.2%	0.0%	1.4%	1.4%	1.5%	1.5%	1.2%
Subtotal	2,134,708	2,177,589	2,348,145	2,445,275	2,532,121	2,593,307	2,591,946	2,687,531	2,772,786	2,872,952	2,979,529	3,085,463	
Subtotal Growth		2.0%	7.8%	4.1%	3.6%	2.4%	2.4%	3.7%	3.2%	3.6%	3.7%	3.6%	3.5%
Medical	937,704	774,094	963,663	991,957	965,654	896,071	896,071	938,314	975,415	1,010,569	1,048,381	1,079,832	
Medical Growth		-17.4%	24.5%	2.9%	-2.7%	-7.2%	-7.2%	4.7%	4.0%	3.6%	3.7%	3.0%	3.8%
Total	2,994,664	2,878,948	3,235,982	3,358,886	3,417,850	3,408,400	3,411,503	3,546,955	3,667,733	3,801,444	3,944,191	4,079,902	
Total Growth		-3.9%	12.4%	3.8%	1.8%	-0.3%	-0.2%	4.0%	3.4%	3.6%	3.8%	3.4%	3.6%

Revenue: by Program Area

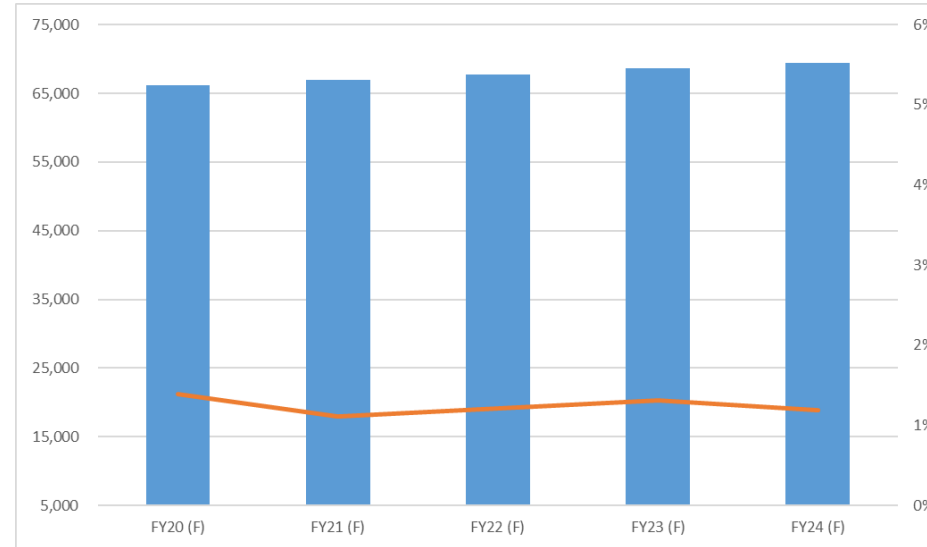
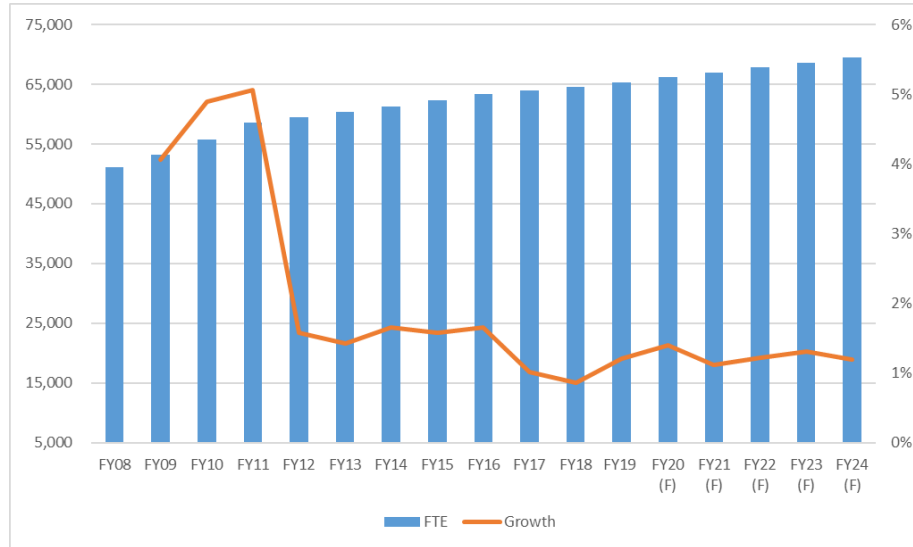
	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
<i>\$ in Thousands</i>													
(1) E&G (ABDL)	1,514,735	1,563,696	1,673,418	1,749,548	1,796,653	1,838,784	1,840,093	1,904,824	1,972,926	2,047,178	2,127,238	2,207,236	
<i>E&G Growth</i>		3.2%	7.0%	4.5%	2.7%	2.3%	2.4%	3.5%	3.6%	3.8%	3.9%	3.8%	3.7%
Research (ABDL)	210,881	219,523	232,703	243,349	248,269	254,391	249,494	256,989	262,890	269,038	274,912	282,321	
<i>Research Growth</i>		4.1%	6.0%	4.6%	2.0%	2.5%	0.5%	3.0%	2.3%	2.3%	2.2%	2.7%	2.5%
Auxiliary (ABDL)	308,080	323,883	348,045	365,029	390,123	407,230	414,072	429,185	438,380	453,824	469,308	483,956	
<i>Auxiliary Growth</i>		5.1%	7.5%	4.9%	6.9%	4.4%	6.1%	3.6%	2.1%	3.5%	3.4%	3.1%	3.2%
(2) Other (Med)	629,483	511,148	722,615	657,066	764,367	670,038	669,351	678,559	699,995	719,391	741,573	764,673	
<i>Other Growth</i>		-18.8%	41.4%	-9.1%	16.3%	-12.3%	-12.4%	1.4%	3.2%	2.8%	3.1%	3.1%	2.7%
Law School	3,781	3,401	3,430	3,280	3,990	4,067	4,766	4,688	4,794	4,907	5,094	5,300	
<i>Law School Growth</i>		-10.1%	0.9%	-4.4%	21.6%	1.9%	19.5%	-1.6%	2.3%	2.3%	3.8%	4.0%	2.2%
Independent Business Lines (Med)	371,468	348,487	349,215	391,643	292,199	307,714	307,714	342,565	359,847	377,525	396,324	407,938	
<i>Independent Business Lines Growth</i>		-6.2%	0.2%	12.1%	-25.4%	5.3%	5.3%	11.3%	5.0%	4.9%	5.0%	2.9%	5.8%
(3) Total	2,935,356	2,885,171	3,252,580	3,326,336	3,416,188	3,401,246	3,404,379	3,537,921	3,658,366	3,789,786	3,930,730	4,066,031	
<i>Total Growth</i>		-1.7%	12.7%	2.3%	2.7%	-0.4%	-0.3%	3.9%	3.4%	3.6%	3.7%	3.4%	3.6%

(1) E&G = Education & General; ABDL: Amherst, Boston, Dartmouth, Lowell; Total includes Online revenue

(2) Other: 85% of revenues are for the Medical School Research and Education; the remaining 15% are for ABDL revenues not reflected in other programs

(3) Revenue by program area excludes unrealized gains and losses consistent with the total revenue used to calculate the Operating Margin

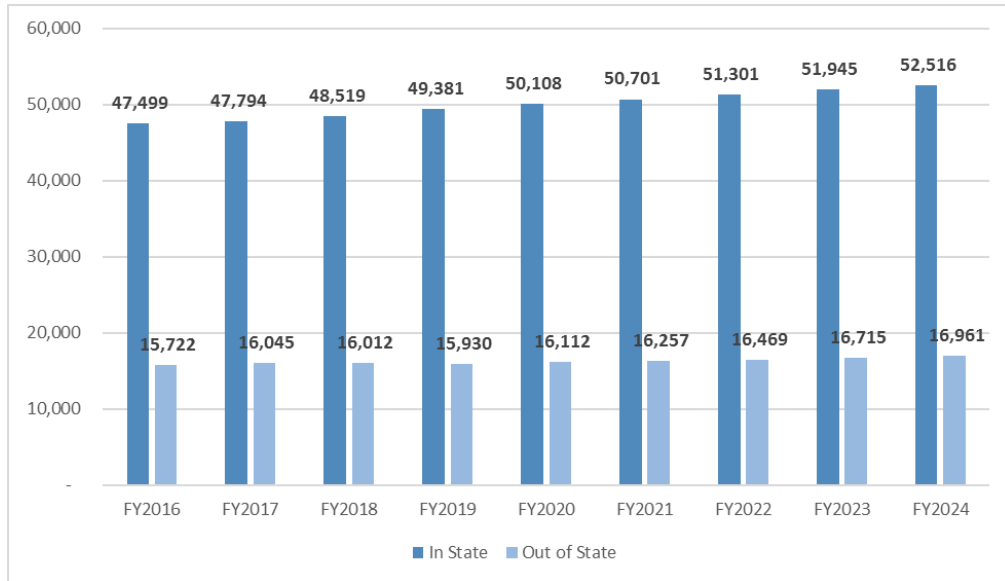
Revenue Sources: Enrollment Trend



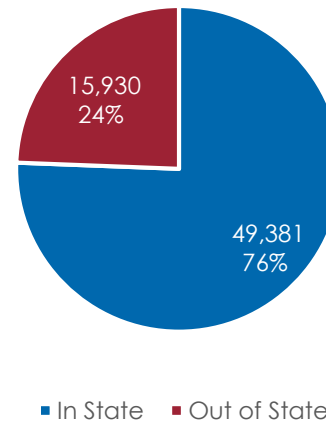
Students (FTEs)	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	23,758	24,277	24,932	26,328	26,637	26,747	27,008	27,098	27,696	28,340	28,711	29,189	29,051	29,326	29,651	30,047	30,516	30,841
Boston	9,817	10,442	11,156	11,442	11,791	12,001	12,333	12,833	13,195	13,101	13,036	13,188	13,219	13,486	13,550	13,614	13,679	13,744
Dartmouth	7,852	7,990	8,159	8,263	7,980	7,984	7,866	7,930	7,766	7,558	7,286	7,436	7,330	7,370	7,409	7,457	7,501	7,605
Lowell	8,619	9,413	10,373	11,361	11,867	12,490	13,025	13,369	13,620	13,910	14,425	14,836	14,558	14,862	15,159	15,463	15,776	16,098
Subtotal	50,046	52,122	54,620	57,394	58,275	59,222	60,232	61,230	62,277	62,909	63,458	64,649	64,158	65,044	65,769	66,582	67,472	68,289
% Growth		4.1%	4.8%	5.1%	1.5%	1.6%	1.7%	1.7%	1.7%	1.0%	0.9%	1.9%	1.1%	0.6%	1.1%	1.2%	1.3%	1.2%
Medical	1,023	1,018	1,120	1,170	1,206	1,115	1,104	1,071	1,056	1,070	1,074	1,111	1,153	1,176	1,188	1,188	1,188	1,188
University	51,069	53,140	55,740	58,564	59,481	60,337	61,336	62,301	63,333	63,979	64,532	65,760	65,310	66,220	66,957	67,770	68,660	69,477
Total Growth		4.1%	4.9%	5.1%	1.6%	1.4%	1.7%	1.6%	1.7%	1.0%	0.9%	1.9%	1.2%	0.7%	1.1%	1.2%	1.3%	1.2%

Source: Actuals from student profile.

Revenue Sources: Enrollment by Residency



FY2019 Enrollment



<i>by Residency</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	49,381	50,108	50,701	51,301	51,945	52,516
<i>In State Growth</i>	1.8%	1.5%	1.2%	1.2%	1.3%	1.1%
Out of State	15,930	16,112	16,257	16,469	16,715	16,961
<i>Out of State Growth</i>	-0.5%	1.1%	0.9%	1.3%	1.5%	1.5%
Total	65,310	66,220	66,957	67,770	68,660	69,477
Total Growth	1.2%	1.4%	1.1%	1.2%	1.3%	1.2%

Source: Actuals from student profile.

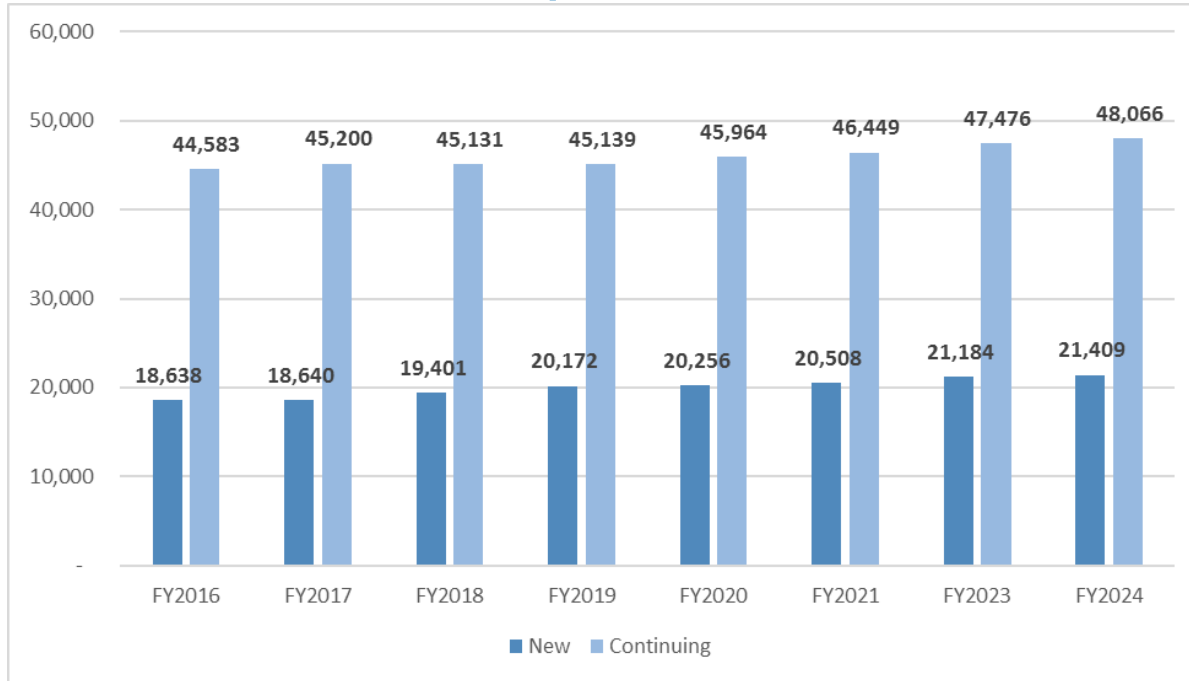
	UMA					
<i>by Residency</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	20,016	20,166	20,341	20,585	20,866	21,025
<i>In State Growth</i>	1.0%	0.8%	0.9%	1.2%	1.4%	0.8%
Out of State	9,035	9,159	9,309	9,462	9,650	9,816
<i>Out of State Growth</i>	1.7%	1.4%	1.6%	1.6%	2.0%	1.7%
Total	29,051	29,326	29,651	30,047	30,516	30,841
Total Growth	1.2%	0.9%	1.1%	1.3%	1.6%	1.1%

	UMB					
<i>by Residency</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	10,582	10,801	10,853	10,905	10,958	11,011
<i>In State Growth</i>	3.3%	2.1%	0.5%	0.5%	0.5%	0.5%
Out of State	2,637	2,685	2,697	2,709	2,721	2,733
<i>Out of State Growth</i>	-5.4%	1.8%	0.4%	0.4%	0.4%	0.4%
Total	13,219	13,486	13,550	13,614	13,679	13,744
Total Growth	1.4%	2.0%	0.5%	0.5%	0.5%	0.5%

	UMD					
<i>by Residency</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	6,248	6,281	6,302	6,324	6,343	6,402
<i>In State Growth</i>	0.6%	0.5%	0.3%	0.3%	0.3%	0.9%
Out of State	1,082	1,089	1,107	1,133	1,158	1,203
<i>Out of State Growth</i>	0.6%	0.7%	1.6%	2.4%	2.2%	3.9%
Total	7,330	7,370	7,409	7,457	7,501	7,605
Total Growth	0.6%	0.6%	0.5%	0.6%	0.6%	1.4%

	UML					
<i>by Residency</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	11,745	12,092	12,439	12,721	13,013	13,313
<i>In State Growth</i>	2.4%	3.0%	2.9%	2.3%	2.3%	2.3%
Out of State	2,813	2,770	2,720	2,742	2,763	2,786
<i>Out of State Growth</i>	-4.9%	-1.5%	-1.8%	0.8%	0.8%	0.8%
Total	14,558	14,862	15,159	15,463	15,776	16,098
Total Growth	0.9%	2.1%	2.0%	2.0%	2.0%	2.0%

Revenue Sources: Enrollment by New vs Continuing



<i>by New v Continuing Students (FTEs)</i>	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	20,172	20,256	20,508	20,827	21,184	21,409
<i>New Growth</i>	4.0%	0.4%	1.2%	1.6%	1.7%	1.1%
Continuing	45,139	45,964	46,449	46,942	47,476	48,066
<i>Continuing Growth</i>	0.0%	1.8%	1.1%	1.1%	1.1%	1.2%
Total	65,310	66,220	66,957	67,769	68,660	69,475
Total Growth	1.2%	1.4%	1.1%	1.2%	1.3%	1.2%

Source: Actuals from student profile.

	UMA					
<i>by New v Continuing Students (FTEs)</i>	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	8,561	8,836	9,111	9,423	9,755	9,963
<i>New Growth</i>	1.9%	3.2%	3.1%	3.4%	3.5%	2.1%
Continuing	20,490	20,490	20,540	20,624	20,762	20,879
<i>Continuing Growth</i>	0.9%	0.0%	0.2%	0.4%	0.7%	0.6%
Total	29,051	29,326	29,651	30,047	30,516	30,841
Total Growth	1.2%	0.9%	1.1%	1.3%	1.6%	1.1%

	UMB					
<i>by New v Continuing Students (FTEs)</i>	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	4,396	4,414	4,370	4,327	4,285	4,244
<i>New Growth</i>	7.8%	0.4%	-1.0%	-1.0%	-1.0%	-1.0%
Continuing	8,823	9,070	9,181	9,292	9,402	9,511
<i>Continuing Growth</i>	-1.5%	2.8%	1.2%	1.2%	1.2%	1.2%
Total	13,219	13,483	13,551	13,618	13,687	13,755
Total Growth	1.4%	2.0%	0.5%	0.5%	0.5%	0.5%

	UMD					
<i>by New v Continuing Students (FTEs)</i>	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	2,580	2,489	2,528	2,584	2,651	2,701
<i>New Growth</i>	7.4%	-3.5%	1.5%	2.2%	2.6%	1.9%
Continuing	4,750	4,881	4,881	4,873	4,850	4,904
<i>Continuing Growth</i>	-2.8%	2.8%	0.0%	-0.2%	-0.5%	1.1%
Total	7,330	7,370	7,409	7,457	7,501	7,605
Total Growth	0.6%	0.5%	0.5%	0.6%	0.6%	1.4%

	UML					
<i>by New v Continuing Students (FTEs)</i>	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	4,360	4,346	4,429	4,515	4,605	4,696
<i>New Growth</i>	2.7%	-0.3%	1.9%	2.0%	2.0%	2.0%
Continuing	10,198	10,516	10,730	10,947	11,171	11,402
<i>Continuing Growth</i>	0.2%	3.1%	2.0%	2.0%	2.0%	2.1%
Total	14,558	14,862	15,159	15,463	15,776	16,098
Total Growth	0.9%	2.1%	2.0%	2.0%	2.0%	2.0%

Revenue Sources: Enrollment by Career

<i>by Career</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Undergraduate	49,493	50,165	50,682	51,230	51,787	52,202
<i>Undergraduate Growth</i>	2.5%	1.4%	1.0%	1.1%	1.1%	0.8%
Graduate	9,076	9,092	9,234	9,360	9,493	9,626
<i>Graduate Growth</i>	0.0%	0.2%	1.6%	1.4%	1.4%	1.4%
Continuing Ed	1,808	1,698	1,693	1,696	1,712	1,734
<i>Continuing Ed Growth</i>	-16.3%	-6.1%	-0.3%	0.2%	1.0%	1.3%
Online Only	4,750	5,046	5,129	5,253	5,438	5,674
<i>Online Only Growth</i>	-1.3%	6.2%	1.7%	2.4%	3.5%	4.3%
Law School	184	220	220	230	230	240
<i>Law School Growth</i>	0.0%	19.9%	0.0%	4.5%	0.0%	4.3%
Total	65,310	66,220	66,957	67,770	68,660	69,477
Total Growth	1.2%	1.4%	1.1%	1.2%	1.3%	1.2%

Source: Actuals from student profile.

UMA						
<i>by Career</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Undergraduate	22,945	23,095	23,295	23,545	23,795	23,895
<i>Undergraduate Growth</i>	1.3%	0.7%	0.9%	1.1%	1.1%	0.4%
Graduate	3,772	3,897	4,022	4,122	4,222	4,322
<i>Graduate Growth</i>	1.7%	3.3%	3.2%	2.5%	2.4%	2.4%
Continuing Ed	417	417	417	425	446	468
<i>Continuing Ed Growth</i>	-11.8%	0.0%	0.0%	2.0%	5.0%	5.0%
Online Only	1,917	1,917	1,917	1,956	2,053	2,156
<i>Online Only Growth</i>	1.5%	0.0%	0.0%	2.0%	5.0%	5.0%
Total	29,051	29,326	29,651	30,047	30,516	30,841
Total Growth	1.2%	0.9%	1.1%	1.3%	1.6%	1.1%

UMB						
<i>by Career</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Undergraduate	10,256	10,483	10,535	10,588	10,641	10,694
<i>Undergraduate Growth</i>	4.3%	2.2%	0.5%	0.5%	0.5%	0.5%
Graduate	1,714	1,752	1,761	1,769	1,778	1,787
<i>Graduate Growth</i>	-4.9%	2.2%	0.5%	0.5%	0.5%	0.5%
Continuing Ed	715	715	715	715	715	715
<i>Continuing Ed Growth</i>	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Online Only	534	537	539	542	545	547
<i>Online Only Growth</i>	-24.0%	0.5%	0.5%	0.5%	0.5%	0.5%
Total	13,219	13,486	13,550	13,614	13,679	13,744
Total Growth	1.4%	2.0%	0.5%	0.5%	0.5%	0.5%

UMD						
<i>by Career</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Undergraduate	5,679	5,734	5,734	5,734	5,734	5,734
<i>Undergraduate Growth</i>	1.7%	1.0%	0.0%	0.0%	0.0%	0.0%
Graduate	640	580	599	617	641	665
<i>Graduate Growth</i>	-8.3%	-9.4%	3.3%	3.0%	3.9%	3.8%
Continuing Ed	265	251	246	241	236	236
<i>Continuing Ed Growth</i>	-47.8%	-5.2%	-2.0%	-2.0%	-2.1%	0.0%
Online Only	546	585	610	635	660	730
<i>Online Only Growth</i>	73.3%	7.2%	4.3%	4.1%	3.9%	10.6%
Law School	200	220	220	230	230	240
<i>Law School Growth</i>	9.0%	10.0%	0.0%	4.5%	0.0%	4.3%
Total	7,330	7,370	7,409	7,457	7,501	7,605
Total Growth	0.6%	0.6%	0.5%	0.6%	0.6%	1.4%

UML						
<i>by Career</i> Students (FTEs)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Undergraduate	10,560	10,853	11,117	11,363	11,617	11,878
<i>Undergraduate Growth</i>	3.1%	2.8%	2.4%	2.2%	2.2%	2.2%
Graduate	1,740	1,688	1,664	1,664	1,664	1,664
<i>Graduate Growth</i>	-3.0%	-3.0%	-1.4%	0.0%	0.0%	0.0%
Continuing Ed	306	315	315	315	315	315
<i>Continuing Ed Growth</i>	-36.8%	2.9%	0.0%	0.0%	0.0%	0.0%
Online Only	1,952	2,007	2,063	2,121	2,180	2,241
<i>Online Only Growth</i>	2.4%	2.8%	2.8%	2.8%	2.8%	2.8%
Total	14,558	14,862	15,159	15,463	15,776	16,098
Total Growth	0.9%	2.1%	2.0%	2.0%	2.0%	2.0%

Revenue Sources: Online

<i>\$ in Thousands</i>	Budget		Forecast				Change	
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	\$	%
Amherst	49,876	50,873	51,891	55,509	61,128	67,318	17,442	35%
Boston	20,239	18,827	19,301	19,786	20,284	20,794	555	3%
Dartmouth	12,168	13,740	15,251	16,929	18,791	20,846	8,678	71%
Lowell	43,538	44,362	48,799	53,678	59,046	64,951	21,413	49%
Total	125,821	127,802	135,242	145,902	159,249	173,909	48,088	38%
<i>Growth</i>		1.6%	5.8%	7.9%	9.1%	9.2%		

- Online revenue reflects the current programming through UMass Online.
- Annual increases assume both enrollment and expanded course offering growth.
- Revenue does not reflect the future state of UMass Online that is currently being studied.

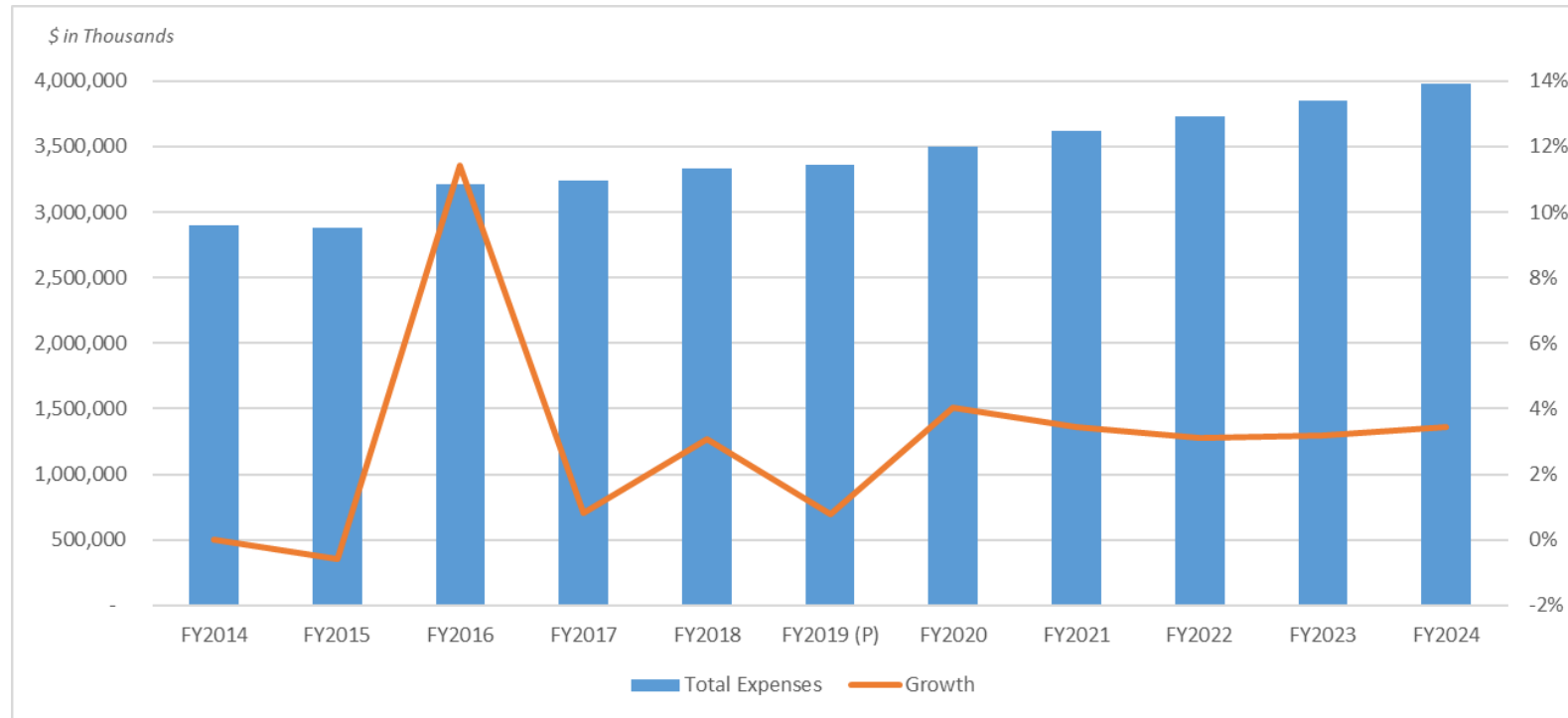
Expenses

Expenses: Modeling Assumptions

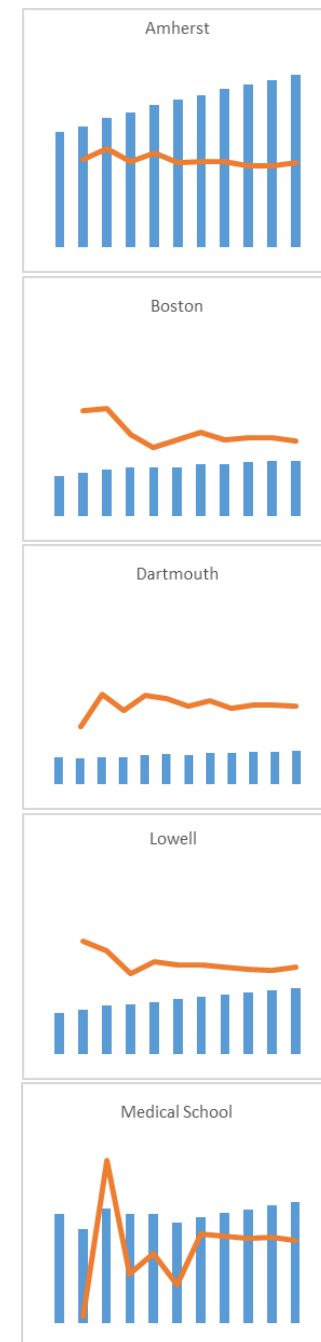
<u>Expense Assumptions</u>	<u>FY20-24</u>
Collective Bargaining	2.0%
Fringe Rate	Range = 36.62% - 43.52%
Payroll Tax	Range = 1.79% - 2.04%
Interest on new borrowing	5.0%
Financial Aid	Consistent with T&F Increase

- **Salaries & Fringe:**
 - Total collective bargaining increases beginning in FY18 of 2.0% or \$26-31 million annually.
 - State funding for collective bargaining beginning in FY18 included at 2.0% or \$11-12 million annually.
 - Annual fringe rate increase of 4.5% based on historical average.
- **Staffing:** Consistent with enrollment, research opportunities and other programmatic needs.
- **Capital & Debt:** Reflects borrowing required to fully implement the current capital plan; Amherst built in planning amount for projects not yet approved; Medical did not build in borrowing or revenues / expenses associated with the VA project pending its final federal approval.
- **Financial Aid:** Increases consistent with tuition increase and to meet student need.

University Expenses: Annual Changes



Excludes impact of GASB 68 & 75



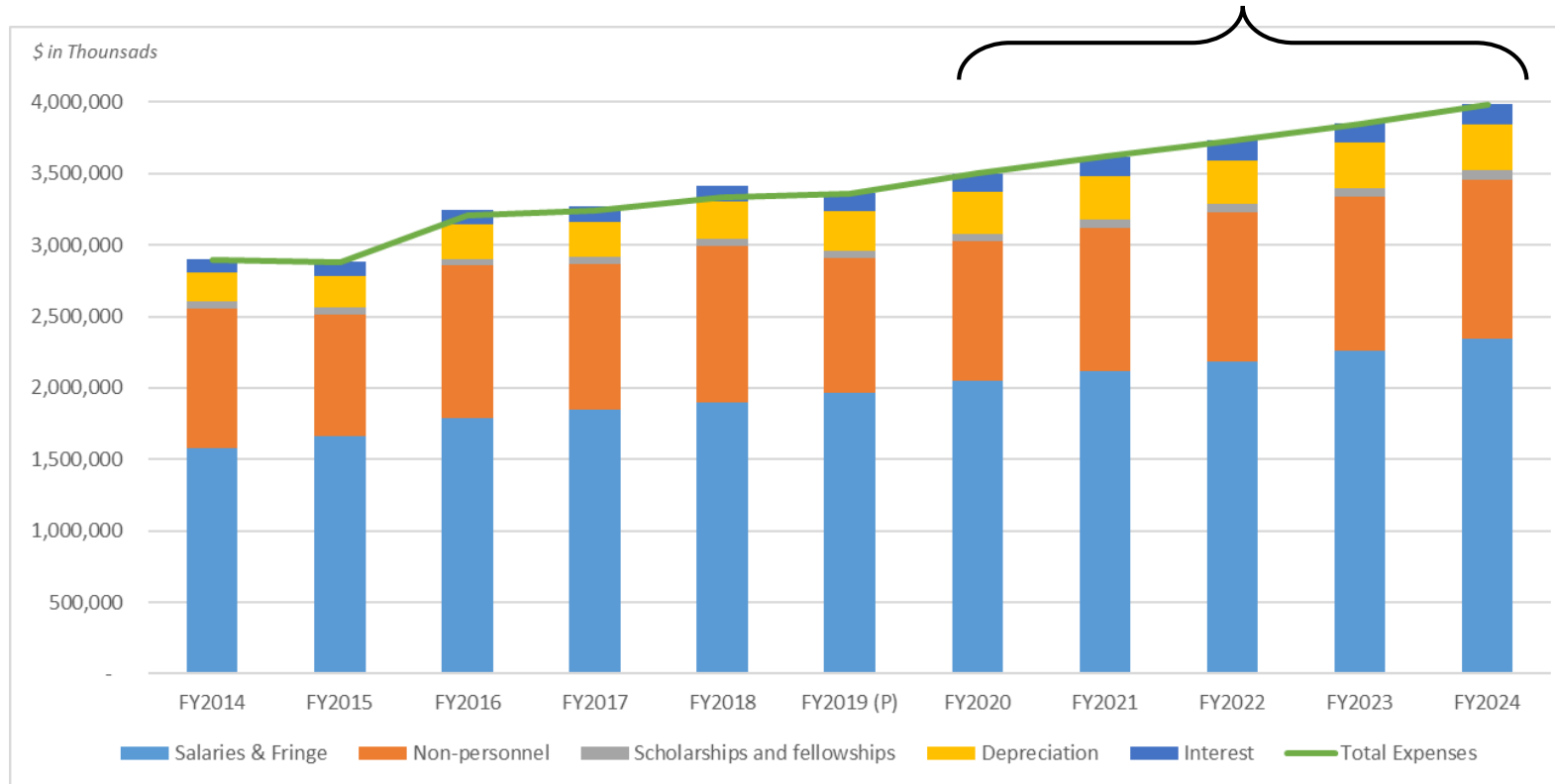
University Expenses: by Expense Category

\$ in Thousands	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
Salaries & Fringe	1,579,542	1,659,054	1,788,018	1,847,346	1,901,896	1,962,973	1,966,641	2,046,017	2,113,625	2,186,316	2,259,007	2,342,459	
<i>Salaries & Fringe Growth</i>		5.0%	7.8%	3.3%	3.0%	3.2%	3.4%	4.0%	3.3%	3.4%	3.3%	3.7%	3.6%
Non-personnel	975,060	852,900	1,067,226	1,018,600	1,088,019	942,706	938,461	977,307	1,009,677	1,040,100	1,081,292	1,116,573	
<i>Non-personnel Growth</i>		-12.5%	25.1%	-4.6%	6.8%	-13.4%	-13.7%	4.1%	3.3%	3.0%	4.0%	3.3%	3.5%
Scholarships and fellowships	51,177	49,300	44,645	47,706	50,402	54,639	52,046	54,555	56,564	58,511	60,522	62,585	
<i>Scholarships & fellowships Growth</i>		-3.7%	-9.4%	6.9%	5.7%	8.4%	3.3%	4.8%	3.7%	3.4%	3.4%	3.4%	3.8%
Depreciation	204,121	221,043	240,864	249,669	261,417	278,941	278,463	290,086	299,493	310,018	317,803	323,496	
<i>Depreciation Growth</i>		8.3%	9.0%	3.7%	4.7%	6.7%	6.5%	4.2%	3.2%	3.5%	2.5%	1.8%	3.0%
Interest	89,496	100,332	105,276	110,069	115,851	124,659	127,333	130,336	139,267	136,313	131,532	137,565	
<i>Interest Growth</i>		12.1%	4.9%	4.6%	5.3%	7.6%	9.9%	2.4%	6.9%	-2.1%	-3.5%	4.6%	1.6%
Total Expenses	2,899,396	2,882,686	3,211,563	3,237,351	3,336,260	3,363,919	3,362,944	3,498,301	3,618,627	3,731,259	3,850,155	3,982,678	
<i>Total Growth</i>		-0.6%	11.4%	0.8%	3.1%	0.8%	0.8%	4.0%	3.4%	3.1%	3.2%	3.4%	3.4%

Excludes impact of GASB 68 & 75

University Expenses: Expense Drivers

Average Annual Growth FY20-24:
\$123.9 million or 3.4%



Excludes impact of GASB 68 & 75

Expenses: by Campus

\$ in Thousands	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
Amherst	1,010,500	1,056,072	1,128,807	1,173,095	1,241,490	1,282,143	1,288,535	1,331,829	1,383,191	1,426,974	1,472,382	1,529,378	
<i>Amherst Growth</i>		4.5%	6.9%	3.9%	5.8%	3.3%	3.8%	3.4%	3.9%	3.2%	3.2%	3.9%	3.5%
Boston	347,427	377,435	411,912	424,463	424,202	436,500	431,357	452,083	459,880	470,066	480,466	493,997	
<i>Boston Growth</i>		8.6%	9.1%	3.0%	-0.1%	2.9%	1.7%	4.8%	1.7%	2.2%	2.2%	2.8%	2.8%
Dartmouth	231,125	225,308	236,213	238,763	250,270	260,074	255,793	268,749	273,382	280,040	288,398	296,918	
<i>Dartmouth Growth</i>		-2.5%	4.8%	1.1%	4.8%	3.9%	2.2%	5.1%	1.7%	2.4%	3.0%	3.0%	3.0%
Lowell	351,922	387,313	417,850	428,306	451,552	470,143	472,493	492,095	512,681	531,115	549,146	571,882	
<i>Lowell Growth</i>		10.1%	7.9%	2.5%	5.4%	4.1%	4.6%	4.1%	4.2%	3.6%	3.4%	4.1%	3.9%
Central	86,791	97,339	104,744	108,938	106,776	121,650	117,724	118,825	120,288	121,777	123,550	125,362	
<i>Central Growth</i>		12.2%	7.6%	4.0%	-2.0%	13.9%	10.3%	0.9%	1.2%	1.2%	1.5%	1.5%	1.3%
Subtotal	2,027,765	2,143,467	2,299,526	2,373,565	2,474,290	2,570,511	2,565,901	2,663,581	2,749,421	2,829,972	2,913,943	3,017,537	
<i>Subtotal Growth</i>		5.7%	7.3%	3.2%	4.2%	3.9%	3.7%	3.8%	3.2%	2.9%	3.0%	3.6%	3.3%
Medical	949,379	811,896	987,866	942,132	943,144	874,386	874,386	913,610	949,673	983,364	1,019,931	1,050,534	
<i>Medical Growth</i>		-14.5%	21.7%	-4.6%	0.1%	-7.3%	-7.3%	4.5%	3.9%	3.5%	3.7%	3.0%	3.7%
⁽¹⁾ Total	2,899,396	2,882,686	3,211,563	3,237,351	3,336,260	3,363,919	3,362,944	3,498,301	3,618,627	3,731,259	3,850,155	3,982,678	
<i>Total Growth</i>		-0.6%	11.4%	0.8%	3.1%	0.8%	0.8%	4.0%	3.4%	3.1%	3.2%	3.4%	3.4%

⁽¹⁾ Excludes impact of GASB 68 & 75

Expenses: by Program Area

	Actual					Budget	Projection	Forecast					Average
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Annual
<i>\$ in Thousands</i>													
(1) E&G (ABDL)	1,497,345	1,546,676	1,613,294	1,708,158	1,760,614	1,837,184	1,846,624	1,915,548	1,981,757	2,044,658	2,111,490	2,198,834	
<i>E&G Growth</i>		3.3%	4.3%	5.9%	3.1%	4.3%	4.9%	3.7%	3.5%	3.2%	3.3%	4.1%	3.6%
Research (ABDL)	205,972	211,109	230,981	235,562	245,931	256,925	246,815	255,160	261,118	267,443	273,140	278,116	
<i>Research Growth</i>		2.5%	9.4%	2.0%	4.4%	4.5%	0.4%	3.4%	2.3%	2.4%	2.1%	1.8%	2.4%
Auxiliary (ABDL)	231,252	274,770	330,577	334,935	362,365	376,379	372,864	384,478	395,581	404,258	412,982	422,177	
<i>Auxiliary Growth</i>		18.8%	20.3%	1.3%	8.2%	3.9%	2.9%	3.1%	2.9%	2.2%	2.2%	2.2%	2.5%
(2) Other (Med)	665,013	568,199	757,329	677,349	764,882	675,674	681,826	689,937	711,910	730,776	751,720	772,982	
<i>Other Growth</i>		-14.6%	33.3%	-10.6%	12.9%	-11.7%	-10.9%	1.2%	3.2%	2.7%	2.9%	2.8%	2.5%
Law School	7,997	8,092	7,820	7,728	7,788	7,928	7,659	7,781	7,900	8,024	8,149	8,278	
<i>Law School Growth</i>		1.2%	-3.4%	-1.2%	0.8%	1.8%	-1.7%	1.6%	1.5%	1.6%	1.6%	1.6%	1.6%
Independent Business Lines	369,564	346,517	347,392	361,099	275,890	290,806	290,806	324,287	340,829	358,179	376,394	387,686	
<i>Independent Business Lines Growth</i>		-6.2%	0.3%	3.9%	-23.6%	5.4%	5.4%	11.5%	5.1%	5.1%	5.1%	3.0%	6.0%
(3) Total	2,899,396	2,882,686	3,211,564	3,237,350	3,336,260	3,363,917	3,362,944	3,498,301	3,618,627	3,731,261	3,850,157	3,982,680	
<i>Total Growth</i>		-0.6%	11.4%	0.8%	3.1%	0.8%	0.0%	4.0%	3.4%	3.1%	3.2%	3.4%	3.4%

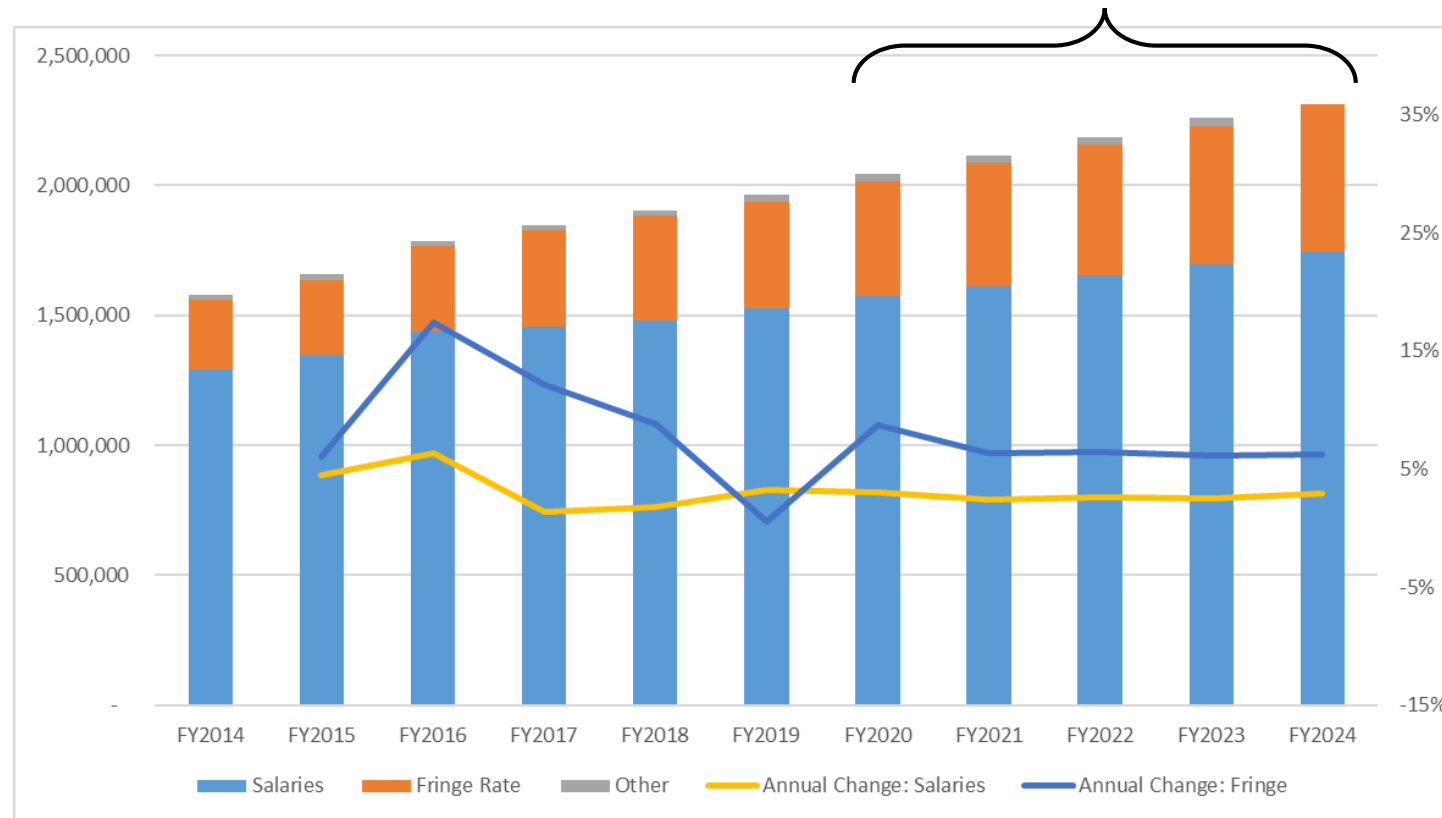
(1) *ABDL: Amherst, Boston, Dartmouth, Lowell*

(2) *Other: 85% of expenses are for the Medical School Research and Education; the remaining 15% are for ABDL costs not reflected in other programs*

(3) *Excludes impact of GASB 68 & 75*

Expense Drivers: Salaries & Fringe

Average Annual Growth FY20-24:
Salaries = \$43.2 million or 3%; Fringe = \$31.6 million or 7%



University: Staffing

University									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	272	320	320	318	323	332	342	348	351
Staff	1,349	1,615	1,639	1,628	1,644	1,676	1,707	1,727	1,750
Total Restricted	1,621	1,935	1,959	1,947	1,967	2,008	2,049	2,075	2,101
<i>FTE Change (#)</i>		313	24	12	20	41	41	26	26
Unrestricted General University Ops									
Faculty	3,759	3,813	3,866	3,939	3,956	3,976	4,003	4,030	4,057
Staff	6,487	6,521	6,552	6,553	6,567	6,578	6,588	6,599	6,610
Total General University Ops	10,246	10,334	10,418	10,491	10,523	10,554	10,591	10,629	10,667
<i>FTE Change (#)</i>		88	84	157	31	31	37	38	38
Unrestricted Aux./Independent Business									
Faculty	18	13	13	13	13	13	13	13	13
Staff	2,549	2,516	2,616	2,721	2,929	2,931	2,933	2,935	2,937
Total Aux./Independent Business	2,567	2,529	2,629	2,734	2,942	2,944	2,946	2,948	2,950
<i>FTE Change (#)</i>		(38)	100	205	208	2	2	2	2
Total Faculty & Staff	14,434	14,847	15,474	15,474	15,728	15,805	15,888	15,956	16,024
		2.9%	4.2%	4.2%	1.6%	0.5%	0.5%	0.4%	0.4%

Staffing Ratios

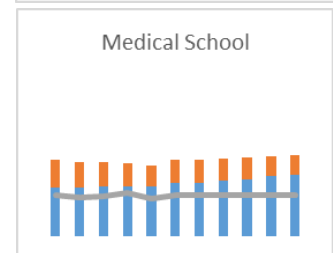
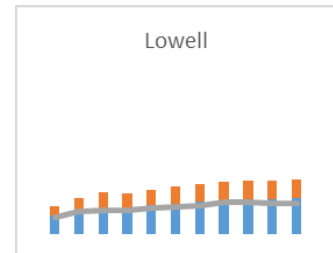
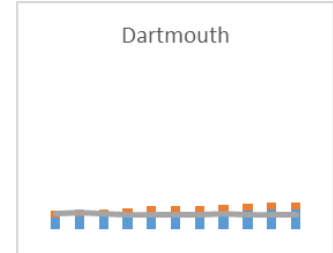
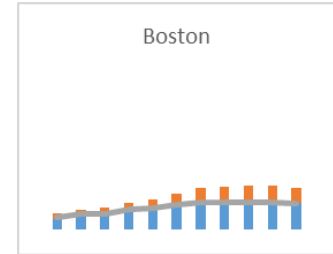
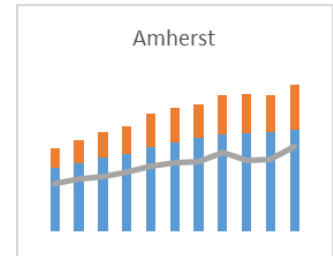
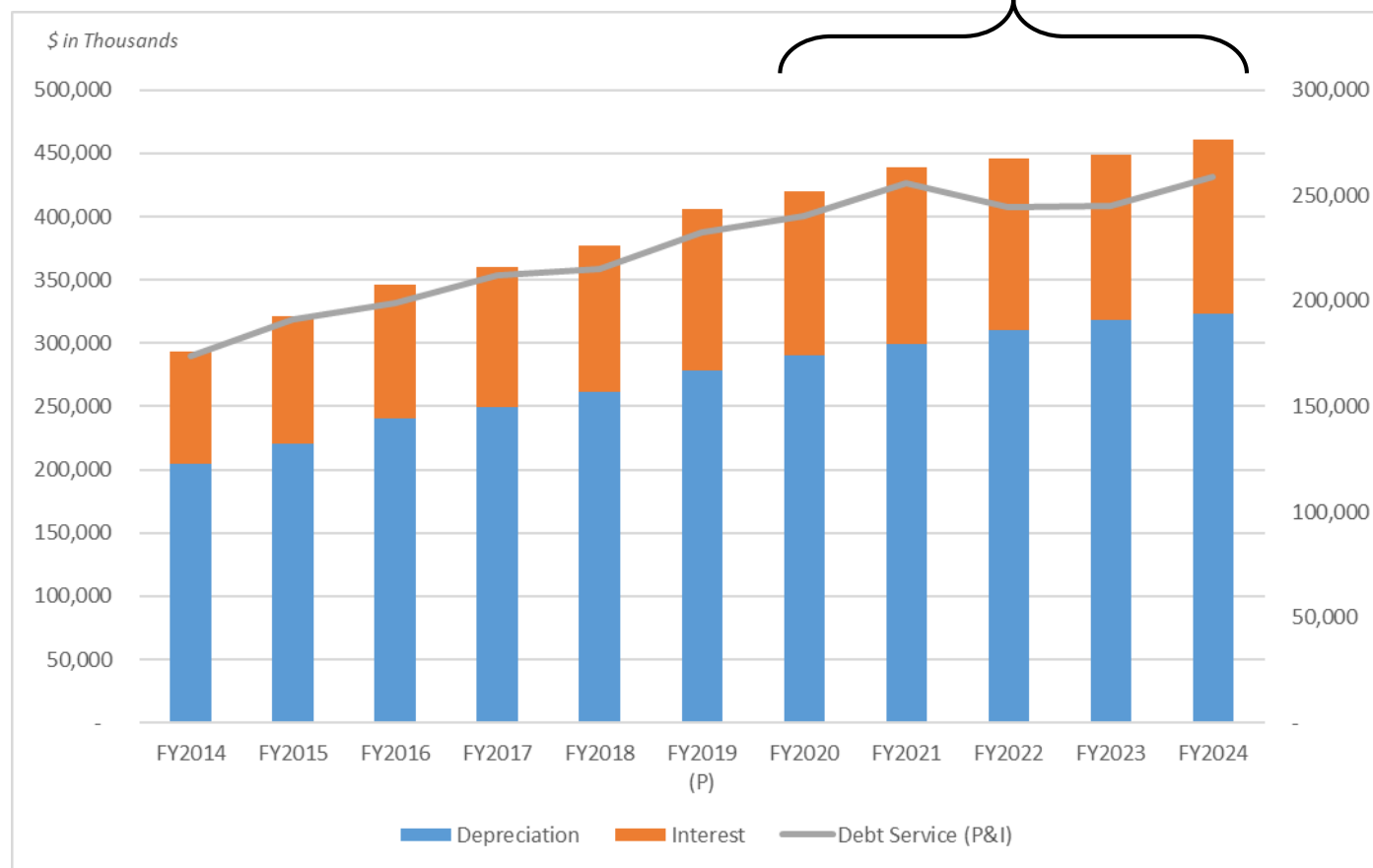
<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	63,977	64,531	65,310	66,220	66,957	67,770	68,660	69,477
Faculty (FTE)	4,049	4,146	4,270	4,291	4,320	4,357	4,390	4,420
Student-Faculty Ratio	15.8	15.6	15.3	15.4	15.5	15.6	15.6	15.7

<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	10,385	10,652	10,902	11,140	11,185	11,228	11,261	11,297
Faculty (FTE)	4,049	4,146	4,270	4,291	4,320	4,357	4,390	4,420
Staff-Faculty Ratio	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6

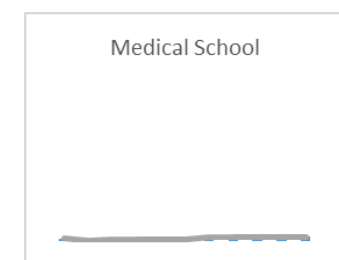
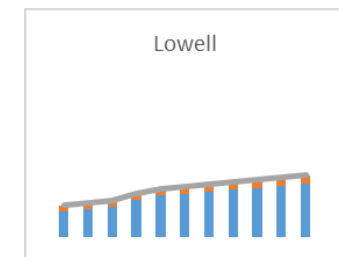
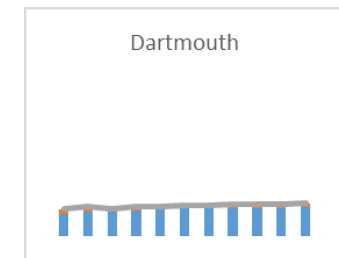
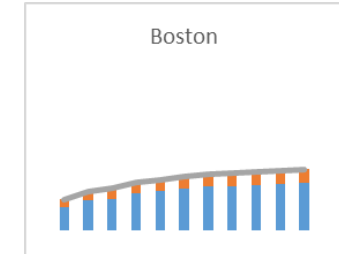
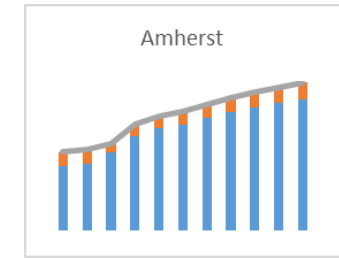
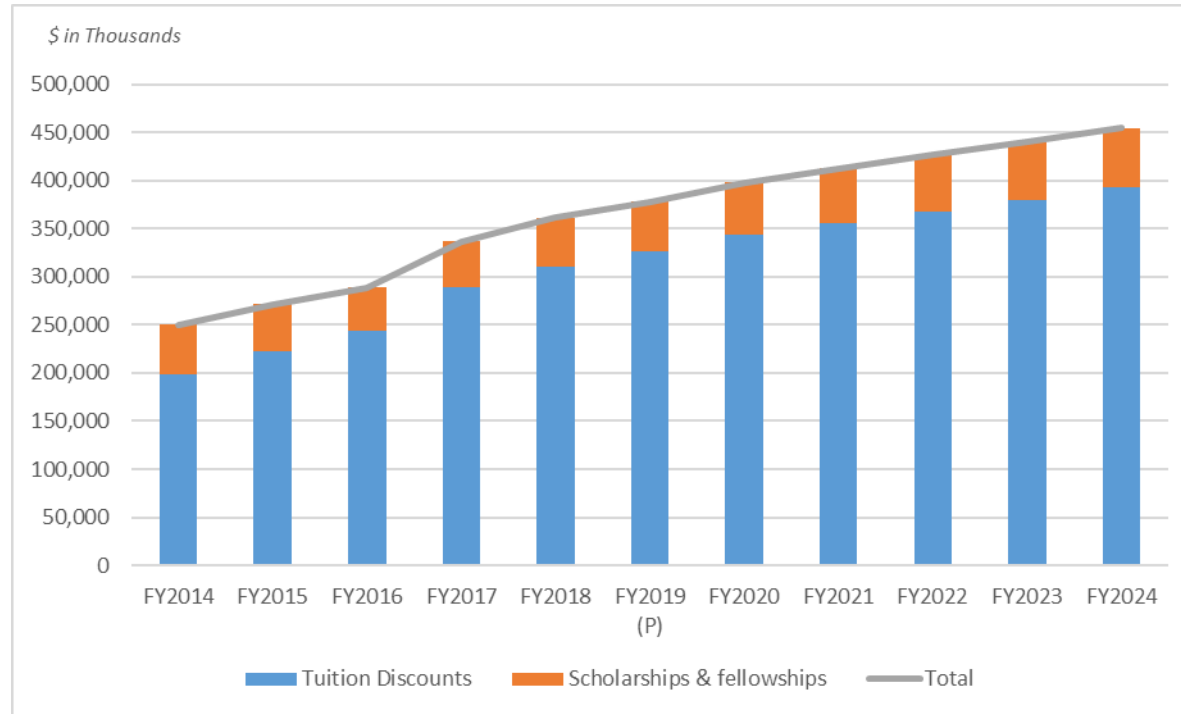
<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	6,487	6,521	6,553	6,567	6,578	6,588	6,599	6,610
Faculty (FTE)	3,759	3,813	3,939	3,956	3,976	4,003	4,030	4,057
Staff-Faculty Ratio (E&G)	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6

Expense Drivers: Depreciation & Interest

Average Annual Growth FY20-24:
\$5.3 million or 2.3%



Expense Drivers: University Financial Aid



Ratios

Key Financial Ratios Defined

Operating cash flow margin – Measures net income (before non-cash expenses) relative to operating revenue to support investments

$$\frac{(\text{Total revenues} - \text{total expenses}) + \text{depreciation} + \text{interest}}{\text{Total revenues}}$$

Operating margin – Indicates the excess margin (or deficit) by which annual revenues cover annual expenses (excluding unrealized gains or losses)

$$\frac{\text{Total revenues} - \text{Total expenses}}{\text{Total revenues}}$$

Debt burden – Compares the relative cost of borrowing to overall expenditures

$$\frac{\text{Debt service (P\&I)}}{\text{Total expenses}}$$

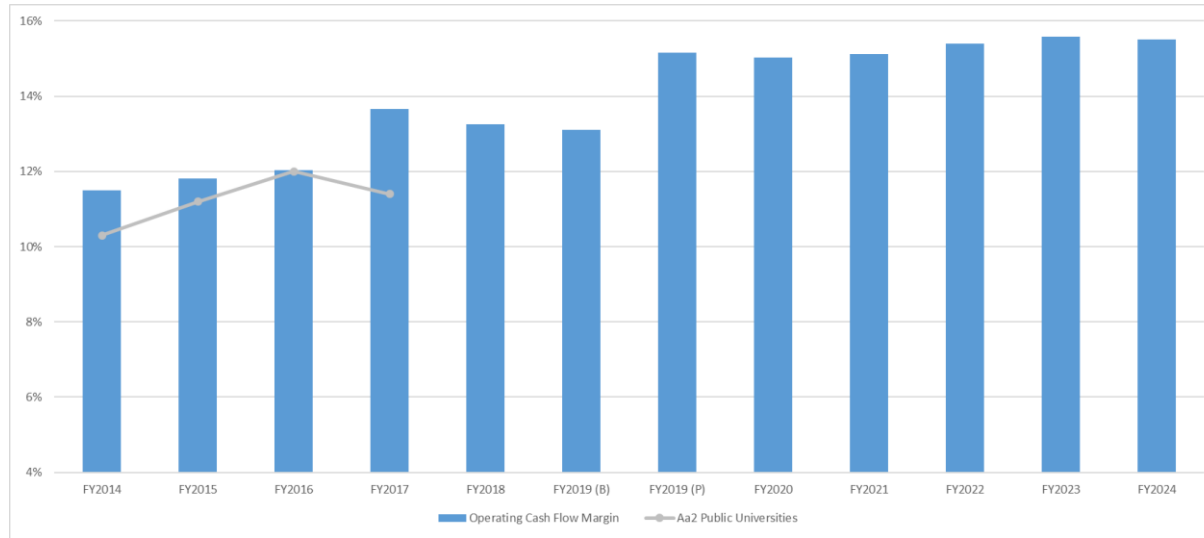
Debt service coverage – Measures the ability to make debt service payments from annual operations

$$\frac{(\text{Total revenues} - \text{total expenses}) + \text{depreciation} + \text{interest}}{\text{Debt service (P\&I)}}$$

Spendable cash & investments to expenses - Measures the extent to which the University can rely on wealth that can be accessed over time or for a specific purpose to operate

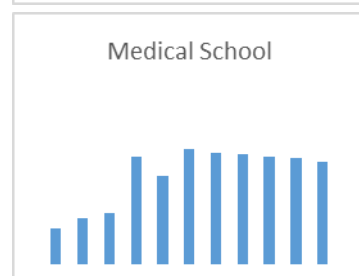
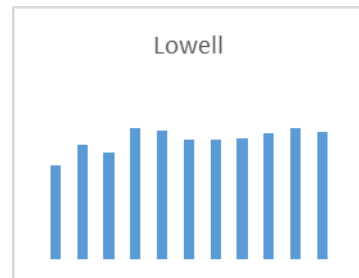
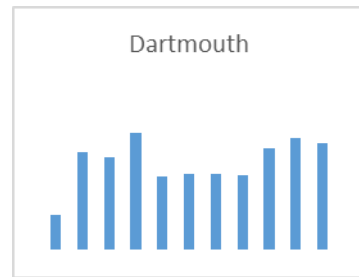
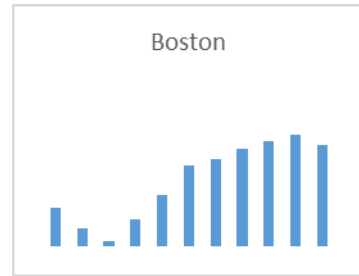
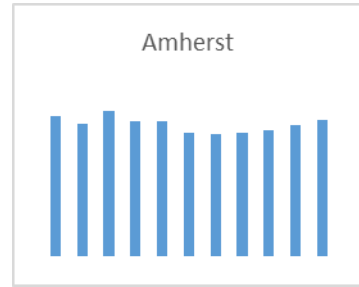
$$\frac{(\text{Cash \& investments} - \text{debt service reserve funds} + \text{permanently restricted pledges receivable} - \text{permanently restricted Net Assets})}{\text{Total expenses}}$$

Operating Cash Flow Margin

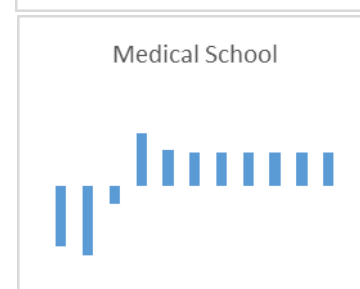
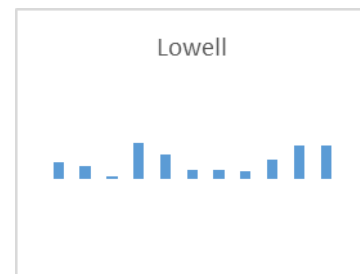
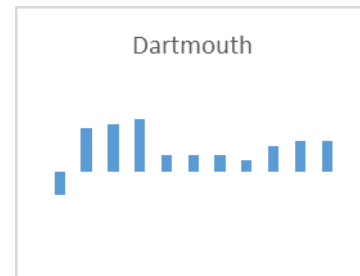
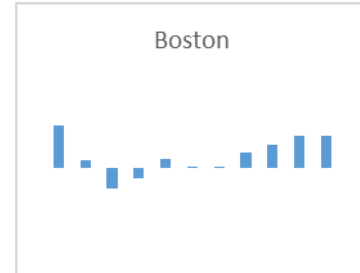
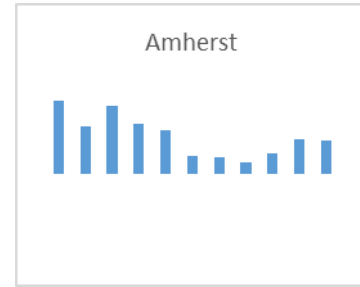
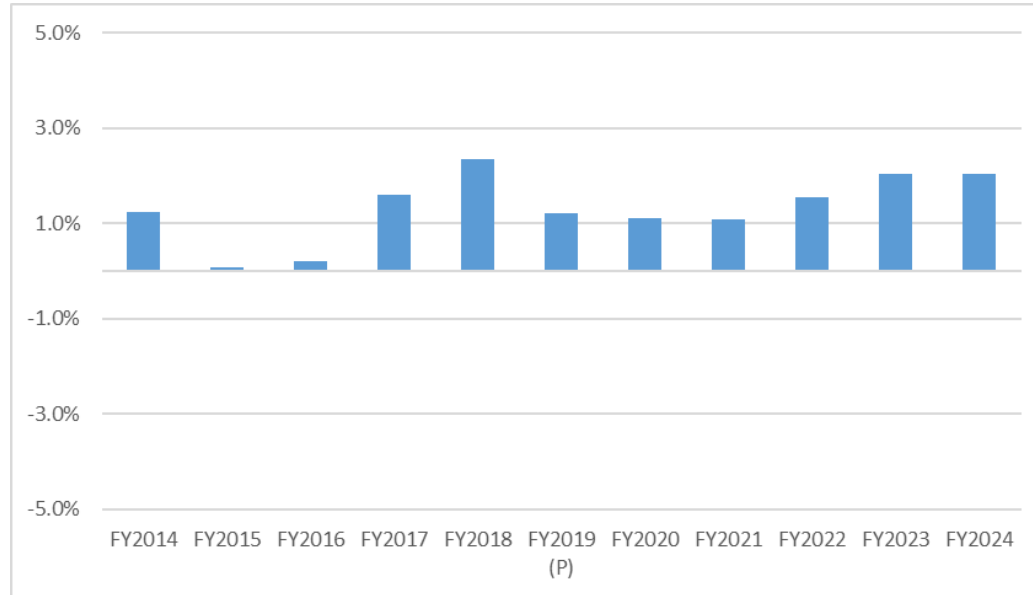


	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	15.2%	14.6%	15.6%	14.8%	14.8%	13.6%	14.2%	13.8%	13.9%	14.1%	14.4%	14.8%
Boston	8.0%	6.4%	5.4%	7.1%	9.0%	10.5%	11.2%	11.8%	12.6%	13.2%	13.6%	12.8%
Dartmouth	7.6%	12.5%	12.1%	13.9%	10.6%	11.1%	10.8%	10.8%	10.7%	12.8%	13.5%	13.1%
Lowell	11.8%	13.3%	12.8%	14.6%	14.3%	13.8%	13.7%	13.7%	13.8%	14.1%	14.5%	14.2%
Medical	7.6%	8.4%	8.7%	12.8%	11.5%	13.2%	13.4%	13.1%	13.0%	12.9%	12.7%	12.5%
Central	19.4%	14.6%	17.0%	17.7%	17.5%	8.9%	5.9%	7.4%	7.8%	8.0%	8.1%	8.1%
University	11.5%	11.8%	12.0%	13.7%	13.3%	13.1%	15.2%	15.0%	15.1%	15.4%	15.6%	15.5%

Excludes impact of GASB 68 & 75



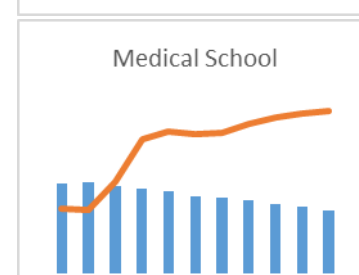
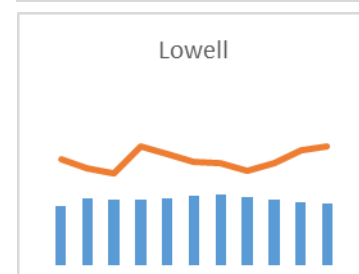
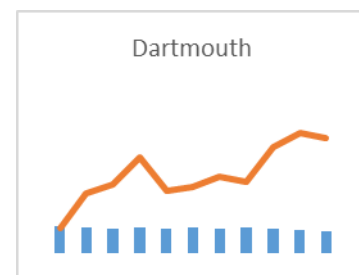
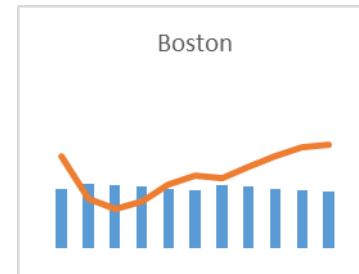
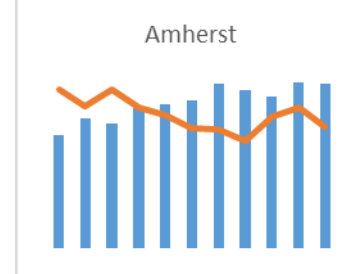
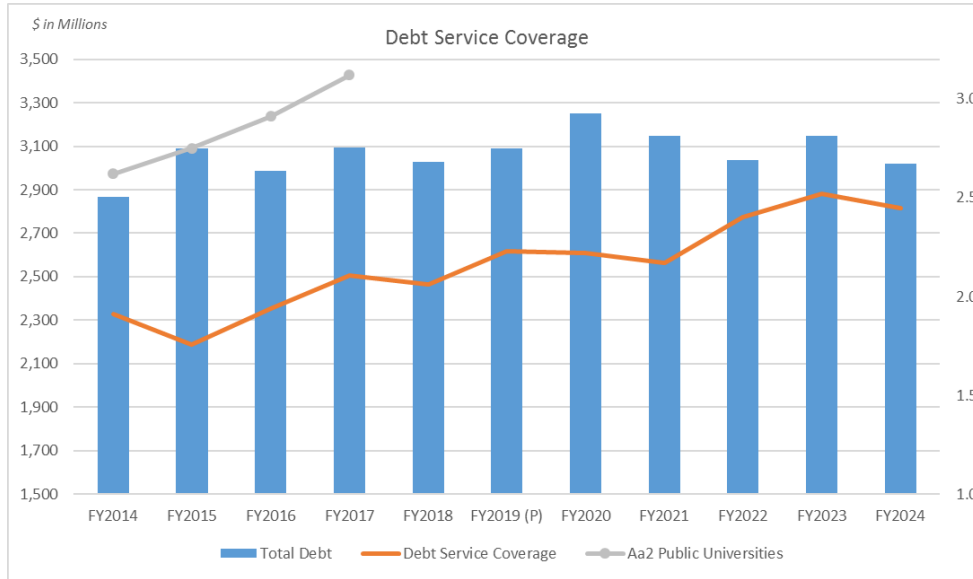
Operating Margin



	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	4.4%	2.8%	4.1%	3.0%	2.6%	0.9%	1.1%	1.0%	0.6%	1.3%	2.0%	2.0%
Boston	2.7%	0.5%	-1.3%	-0.7%	0.6%	0.0%	0.0%	0.0%	1.0%	1.5%	2.0%	2.0%
Dartmouth	-1.5%	2.8%	3.1%	3.4%	1.1%	1.1%	1.1%	1.1%	0.7%	1.7%	2.0%	2.0%
Lowell	1.0%	0.8%	0.2%	2.2%	1.5%	0.7%	0.7%	0.5%	0.5%	1.1%	2.0%	2.0%
Medical	-3.6%	-4.2%	-1.1%	3.2%	2.2%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Central	14.7%	-1.5%	0.7%	6.4%	10.4%	1.3%	2.5%	1.6%	1.8%	2.0%	2.0%	2.0%
University	1.2%	0.1%	0.2%	1.6%	2.3%	1.1%	1.2%	1.1%	1.1%	1.5%	2.0%	2.0%

Excludes impact of GASB 68 & 75

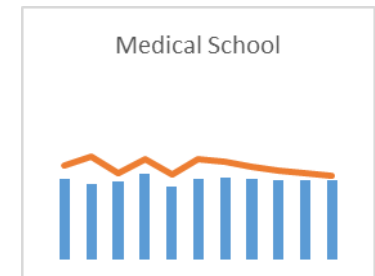
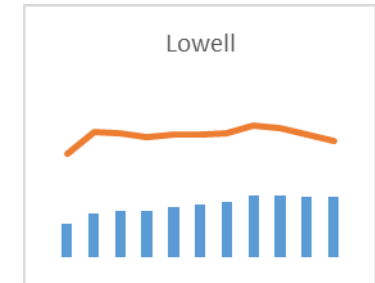
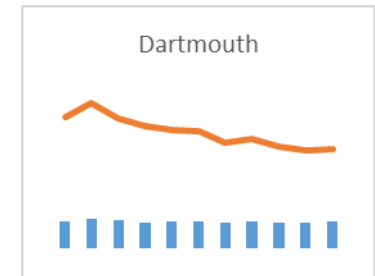
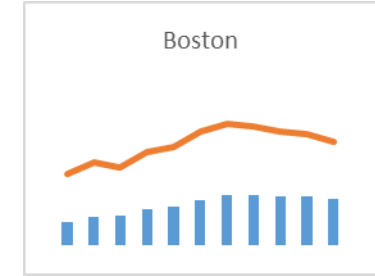
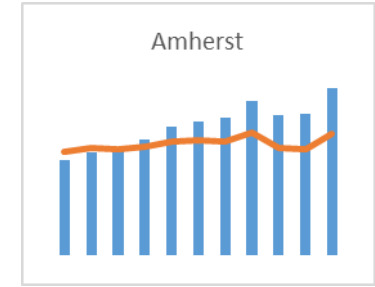
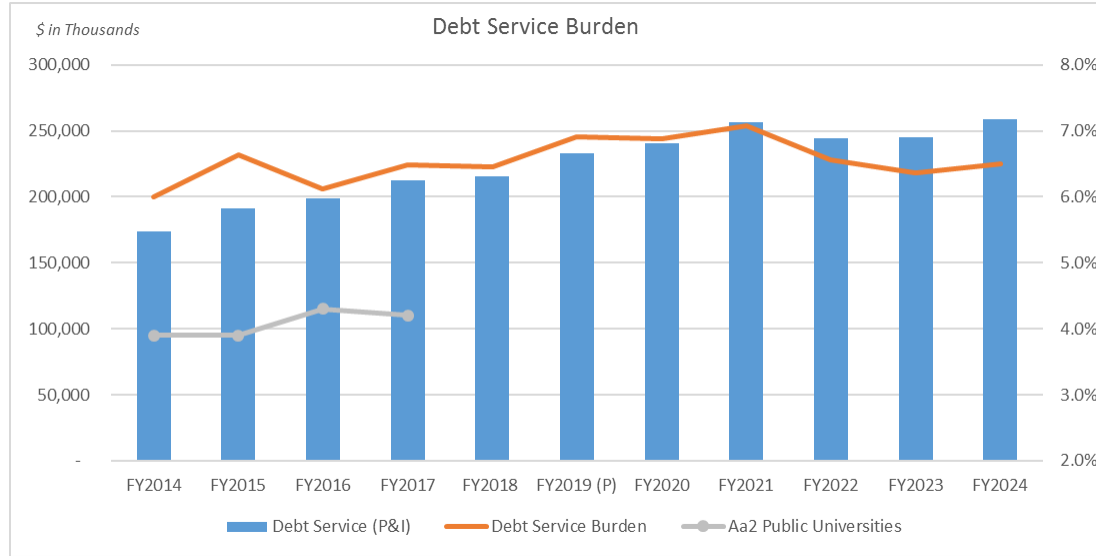
Debt Service Coverage



	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	2.5	2.3	2.5	2.3	2.2	2.0	2.1	2.0	1.9	2.2	2.3	2.1
Boston	1.7	1.2	1.0	1.1	1.4	1.4	1.5	1.5	1.6	1.7	1.9	1.9
Dartmouth	0.8	1.3	1.4	1.8	1.3	1.5	1.4	1.5	1.5	1.9	2.1	2.0
Lowell	1.8	1.7	1.7	2.0	1.9	1.8	1.8	1.8	1.7	1.8	2.0	2.0
Medical	1.3	1.3	1.7	2.2	2.3	2.2	2.3	2.3	2.4	2.5	2.5	2.6
Central	N/A	4.7	4.6	5.6	7.0	1.6	1.8	1.5	1.6	1.6	1.6	2.4
University	1.9	1.8	1.9	2.1	2.1	1.9	2.2	2.2	2.2	2.4	2.5	2.4

Excludes impact of GASB 68 & 75

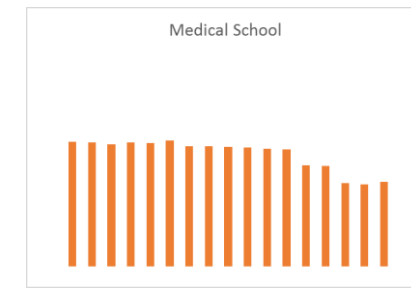
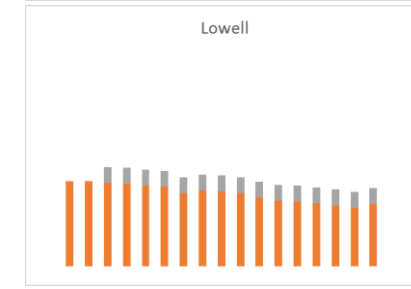
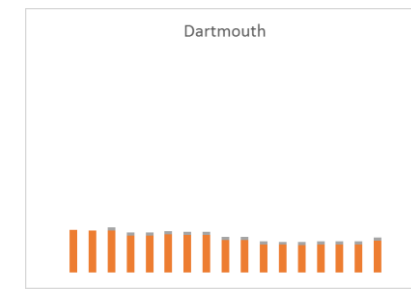
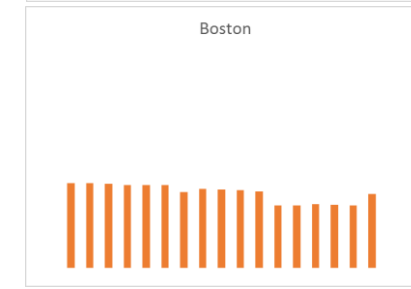
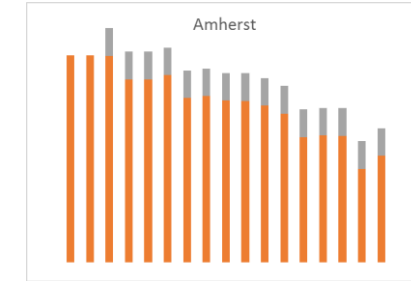
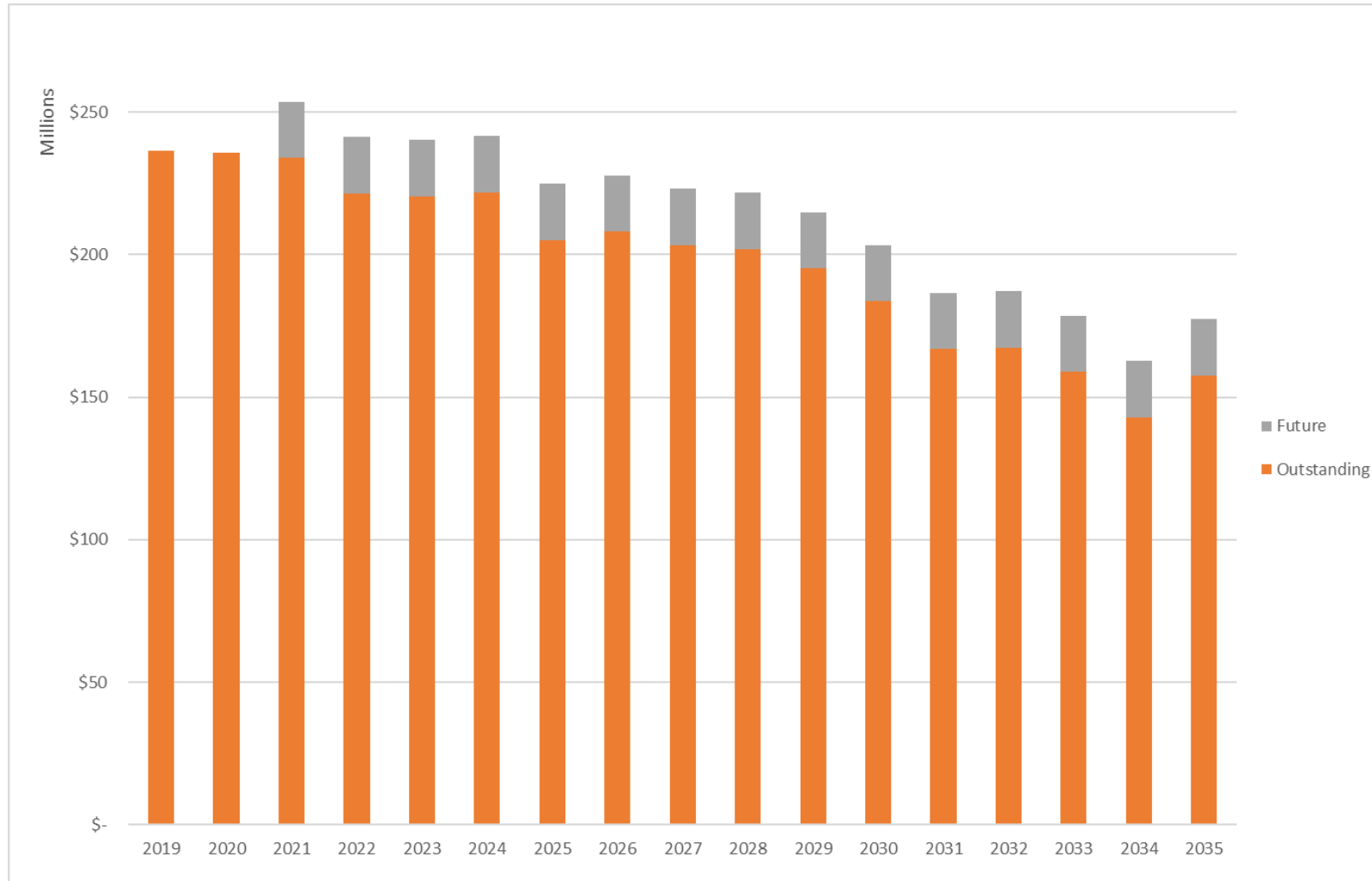
Debt Service Burden



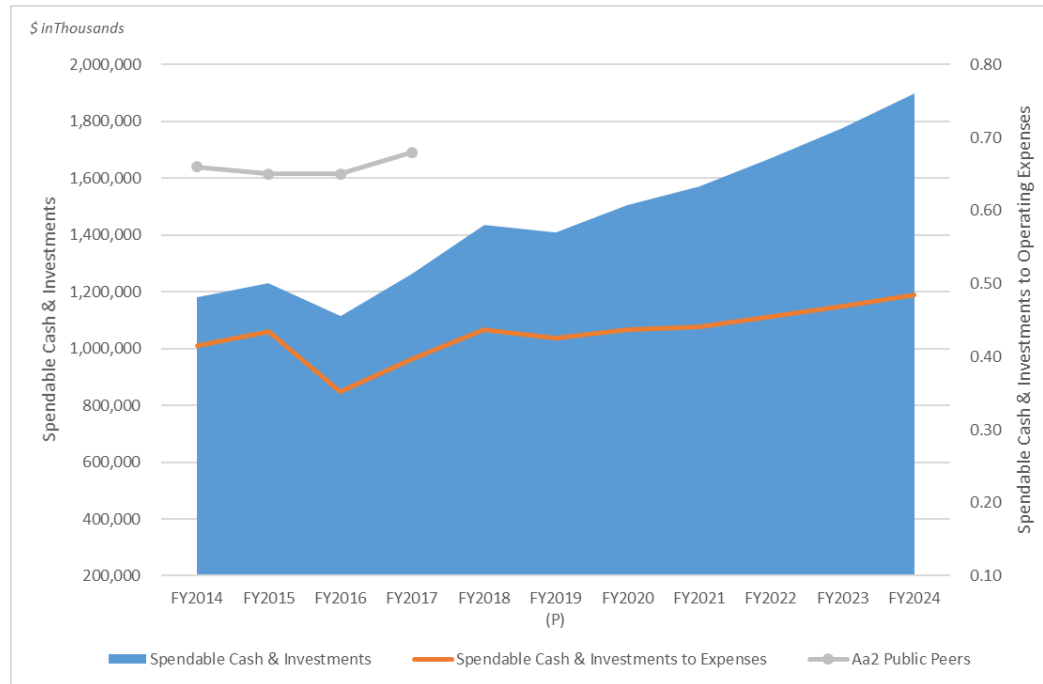
	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	6.2%	6.4%	6.4%	6.6%	6.8%	6.7%	6.9%	6.9%	7.4%	6.5%	6.4%	7.3%
Boston	4.5%	5.2%	4.9%	5.9%	6.3%	6.9%	7.2%	7.7%	7.6%	7.3%	7.1%	6.6%
Dartmouth	8.5%	9.3%	8.4%	7.8%	7.6%	7.1%	7.5%	6.8%	7.1%	6.5%	6.3%	6.4%
Lowell	6.3%	7.6%	7.5%	7.3%	7.4%	7.5%	7.5%	7.5%	8.0%	7.8%	7.4%	7.0%
Medical	5.6%	6.2%	5.2%	6.0%	5.1%	6.1%	6.1%	5.9%	5.6%	5.4%	5.2%	5.0%
Central	0.1%	3.1%	3.7%	3.4%	2.8%	5.8%	4.2%	4.2%	4.3%	4.3%	4.3%	2.8%
University	6.0%	6.6%	6.1%	6.5%	6.5%	6.8%	6.9%	6.9%	7.1%	6.6%	6.4%	6.5%

Excludes impact of GASB 68 & 75

University Debt Service

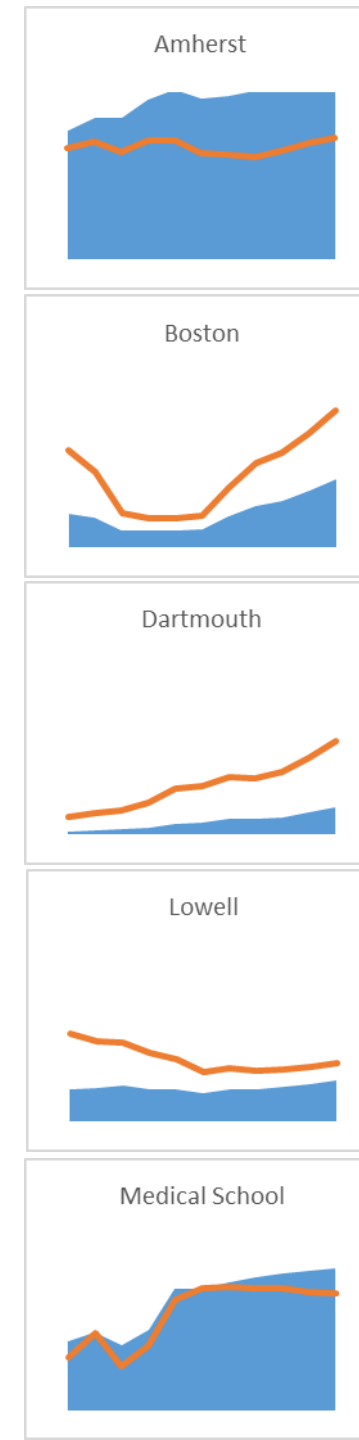


Spendable Cash & Investments



	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019 (B)	FY2019 (P)	FY2020	FY2021	FY2022	FY2023	FY2024
Amherst	0.43	0.46	0.42	0.46	0.46	0.41	0.42	0.41	0.41	0.43	0.45	0.46
Boston	0.39	0.33	0.20	0.19	0.19	0.18	0.20	0.28	0.35	0.38	0.44	0.49
Dartmouth	0.15	0.16	0.17	0.20	0.24	0.21	0.24	0.27	0.27	0.29	0.33	0.38
Lowell	0.36	0.34	0.34	0.31	0.29	0.22	0.25	0.26	0.25	0.26	0.27	0.27
Medical	0.26	0.33	0.23	0.30	0.43	0.35	0.47	0.47	0.47	0.47	0.46	0.45
Central	2.18	1.83	1.44	1.74	1.95	1.64	1.79	1.80	1.80	1.85	1.80	1.81
University	0.41	0.43	0.35	0.40	0.44	0.38	0.43	0.44	0.44	0.45	0.47	0.48

*Excludes impact of GASB 68 & 75



Graduation Rates

4 Year Graduation Rate											
%	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Amherst	66.0%	67.0%	67.0%	70.5%	73.7%	73.7%	74.1%	74.5%	75.0%	75.4%	76.4%
Boston(1)	15.0%	18.0%	20.9%	25.2%	24.5%						
Dartmouth	28.0%	28.0%	30.2%	37.2%	37.1%	37.2%	37.7%	38.2%	38.8%	39.4%	40.0%
Lowell (2)	31.0%	32.2%	38.5%	37.7%	40.5%	44.2%	45.0%	45.0%	45.0%	45.0%	45.0%

6 Year Graduation Rate											
%	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Amherst	72.9%	76.0%	78.0%	76.5%	77.4%	80.0%	80.5%	81.0%	81.5%	82.0%	83.0%
Boston(1)	43.6%	42.0%	42.0%	45.0%	47.9%						
Dartmouth	49.0%	47.0%	46.0%	48.8%	48.5%	49.0%	49.5%	50.0%	50.6%	51.3%	52.0%
Lowell (2)	54.0%	54.0%	56.0%	56.1%	60.1%	63.0%	60.0%	60.0%	60.0%	60.0%	60.0%

Source: FY11-18 Student Profile; FY19-24 Campus

(1) Boston campus does not currently set annual target for graduation rate.

(2) Lowell: 6-year - 60% is the 2020 Strategic Plan Goal for fall 2020 (FY21). Intent would be to maintain or improve on goal in the future.

Retention Rates

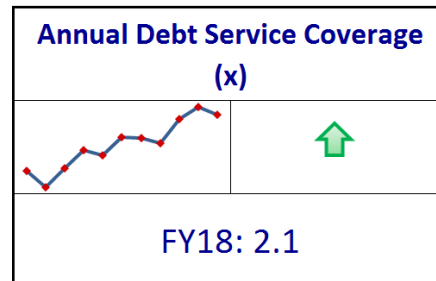
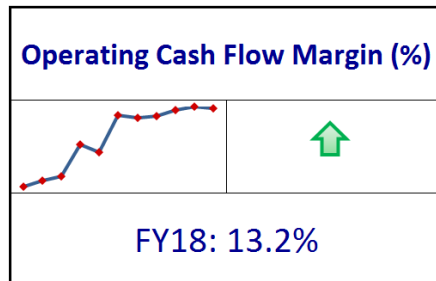
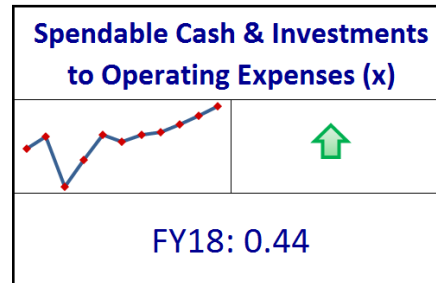
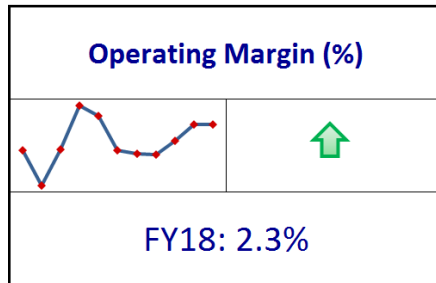
First-Year Retention Rate											
%	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Amherst	89.0%	90.0%	91.0%	91.3%	90.6%	91.0%	91.0%	91.0%	91.0%	91.0%	91.0%
Boston	77.0%	80.0%	78.0%	79.4%	77.5%	80.5-82.5%	80.5-82.5%	80.5-82.5%	80.5-82.5%	80.5-82.5%	80.5-82.5%
Dartmouth	76.0%	79.0%	75.0%	73.4%	74.2%	70.5%	72.0%	73.5%	75.0%	76.0%	77.0%
Lowell (1)	84.0%	84.0%	86.0%	84.8%	86.3%	85.1%	85.0%	85.0%	85.0%	85.0%	85.0%

Source: FY11-18 Student Profile; FY19-24 Campus

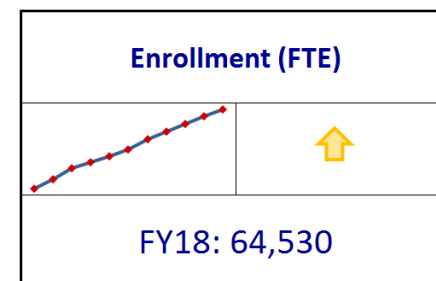
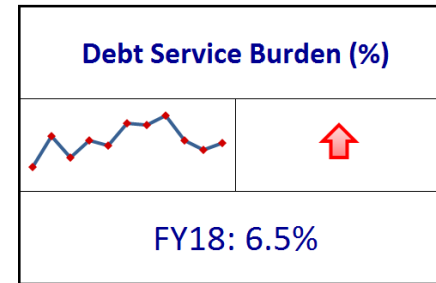
(1) Lowell: 90% is the 2020 Strategic Plan Goal for fall 2020 (FY21). The feasibility of hitting this target is under review. The campus has made tremendous strides in recent years. The intent is to continue to maintain or increase retention rates as feasible.

Key Take Aways

Improving



On Watch



Campus Data

Amherst

Amherst: Assumptions

<i>\$ in thousands</i>	Assumption FY2020-24	\$ Value				
Revenue Assumptions		FY20	FY21	FY22	FY23	FY24
University Level						
State Appropriation	0.0%	-	-	-	-	-
State Collective Bargaining	2.0%	5,839	5,948	6,058	6,171	6,286
Modeled Tuition - In State UG	2.5%	4,356	4,491	4,637	4,802	4,972
Modeled Tuition - Out of State UG	3.0%	3,390	3,411	3,500	3,649	3,808
Modeled Tuition - Grad	3.0%	1,115	1,178	1,237	1,298	1,362
Campus Level						
Enrollment Increase	FY20 = 0.9% FY21-24 = 1.1 - 0.7%	3,387	4,098	4,675	4,675	2,592
Auxiliary: Dining & Housing Rates	3% increase in Room & board rate/year.	5,528	7,824	7,727	7,993	7,658
Online: Rates & Enrollment	2% increase in rate; flat enrollment	996	1,016	3,618	5,619	6,190
Expense Assumptions						
University Level						
Collective Bargaining	2.0%	11,511	11,555	11,880	12,117	12,583
Fringe Rate	36.62% - 43.52%	10,562	10,850	11,103	11,364	11,630
Campus Level						
Expense Reductions to achieve margin	pending detailed plans	1,500	1,500	1,500	1,500	1,500
Debt (interest payment)	FY20 & FY23 borrowing		9,050	8,914	8,771	20,121

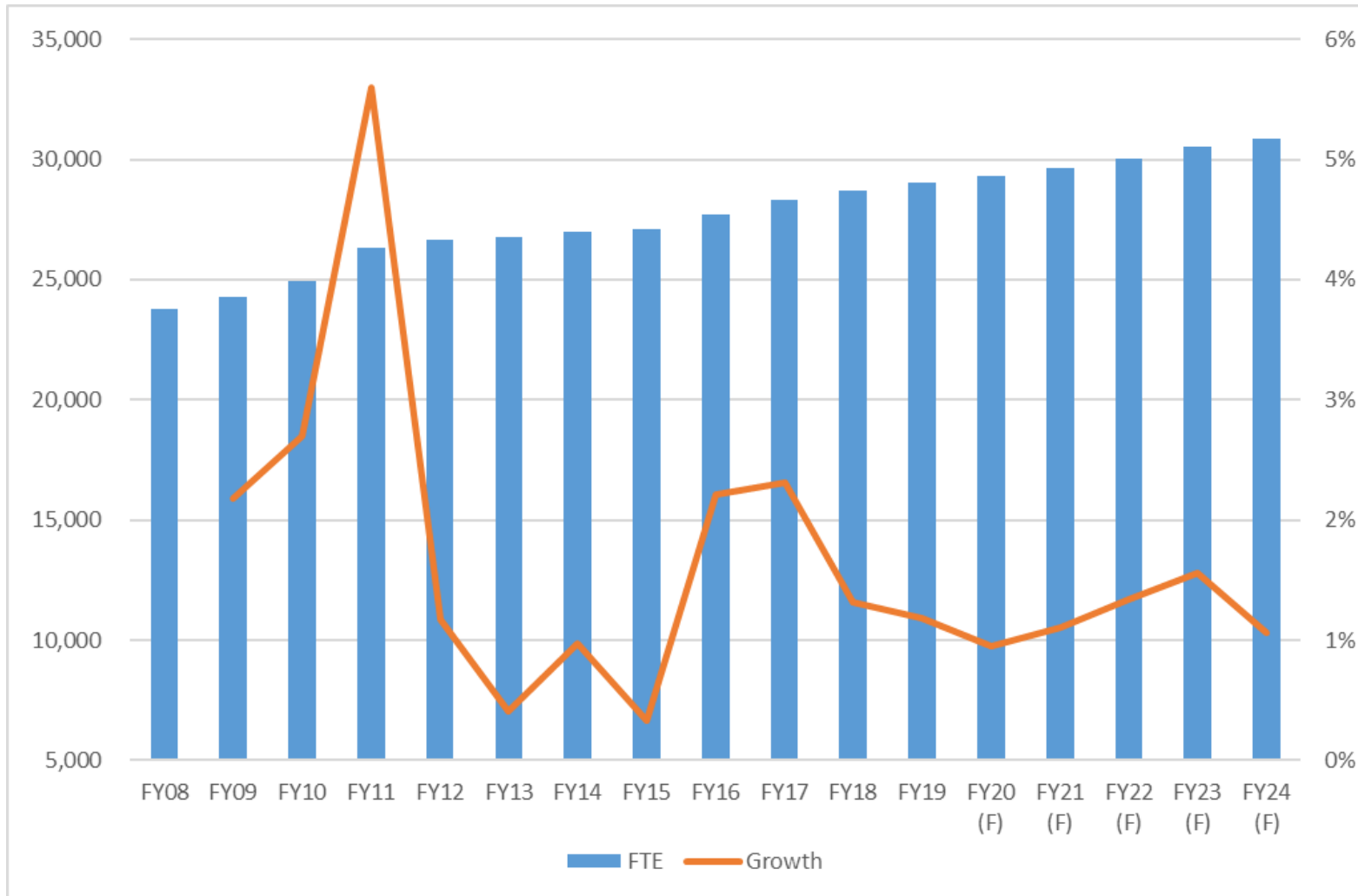
Amherst: Revenue & Expenses

(\$ in Thousands)

AMHERST

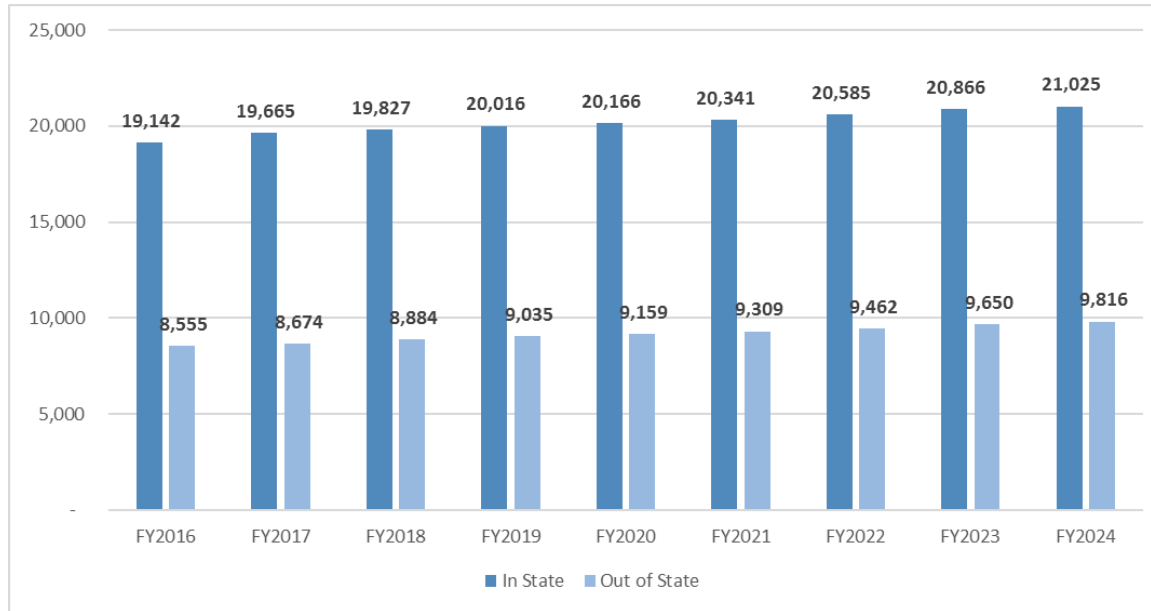
Revenues	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Gross Tuition & Fees	433,244	440,723	481,072	513,450	541,665	561,039	560,476	581,553	604,292	631,183	661,224	689,255
Tuition Discounts	(95,477)	(99,261)	(114,881)	(139,441)	(150,824)	(158,632)	(156,668)	(166,181)	(174,609)	(182,081)	(189,525)	(195,178)
Discount Rate	22.0%	22.5%	23.9%	27.2%	27.8%	28.3%	28.0%	28.6%	28.9%	28.8%	28.7%	28.3%
Net Tuition & Fees	337,767	341,462	366,191	374,009	390,841	402,407	403,808	415,372	429,683	449,102	471,699	494,077
Grants	145,206	137,136	145,217	148,554	153,007	157,607	156,545	161,034	165,669	170,442	175,359	180,423
Sales & Service, Educational	8,089	8,908	8,935	9,137	9,321	9,796	9,796	10,092	10,397	10,710	11,033	11,366
Auxiliary Enterprises	214,759	223,784	241,428	256,110	268,041	276,141	277,799	286,640	297,884	309,155	320,802	332,110
Other Operating	16,137	19,010	22,413	16,575	16,768	18,259	18,000	18,000	18,000	18,000	18,000	18,000
State appropriations	272,676	298,423	319,541	345,411	360,161	363,541	371,243	385,042	399,243	413,847	428,816	444,122
Other NonOperating	86,787	53,891	70,716	66,258	78,504	71,335	71,039	74,113	76,640	79,137	82,408	86,235
Total Revenues	1,081,421	1,082,614	1,174,441	1,216,054	1,276,643	1,299,087	1,308,229	1,350,294	1,397,515	1,450,393	1,508,117	1,566,334
% Growth		0.1%	8.5%	3.5%	5.0%	1.8%	2.5%	3.9%	3.5%	3.8%	4.0%	3.9%
Expenses	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Salaries & Fringe	591,485	621,583	676,474	712,315	744,102	764,195	767,693	797,288	824,610	853,720	883,618	914,475
Non-personnel	289,728	295,012	308,850	306,743	326,076	340,381	339,528	347,650	358,456	371,203	386,665	399,320
Scholarships and fellowships	20,991	20,215	14,452	17,378	18,216	19,606	19,606	20,539	21,581	22,504	23,424	24,123
Depreciation	82,687	89,442	96,614	100,409	109,965	115,982	116,594	121,305	126,184	128,771	129,564	132,607
Interest	25,609	29,820	32,417	36,250	43,131	41,978	45,113	45,047	52,358	50,776	49,111	58,852
Total Expenses	1,010,500	1,056,072	1,128,807	1,173,095	1,241,490	1,282,143	1,288,535	1,331,829	1,383,191	1,426,974	1,472,382	1,529,378
% Growth		4.5%	6.9%	3.9%	5.8%	3.3%	3.8%	3.9%	3.9%	3.2%	3.2%	3.9%
Operating Margin	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Surplus / (Deficit)	46,270	30,624	48,150	36,052	33,114	11,819	14,483	13,208	9,019	18,066	30,333	31,505
UMass OM Calc	4.4%	2.8%	4.1%	3.0%	2.6%	0.9%	1.1%	1.0%	0.6%	1.3%	2.0%	2.0%

Amherst: Enrollment Trend



Source: Actuals from student profile.

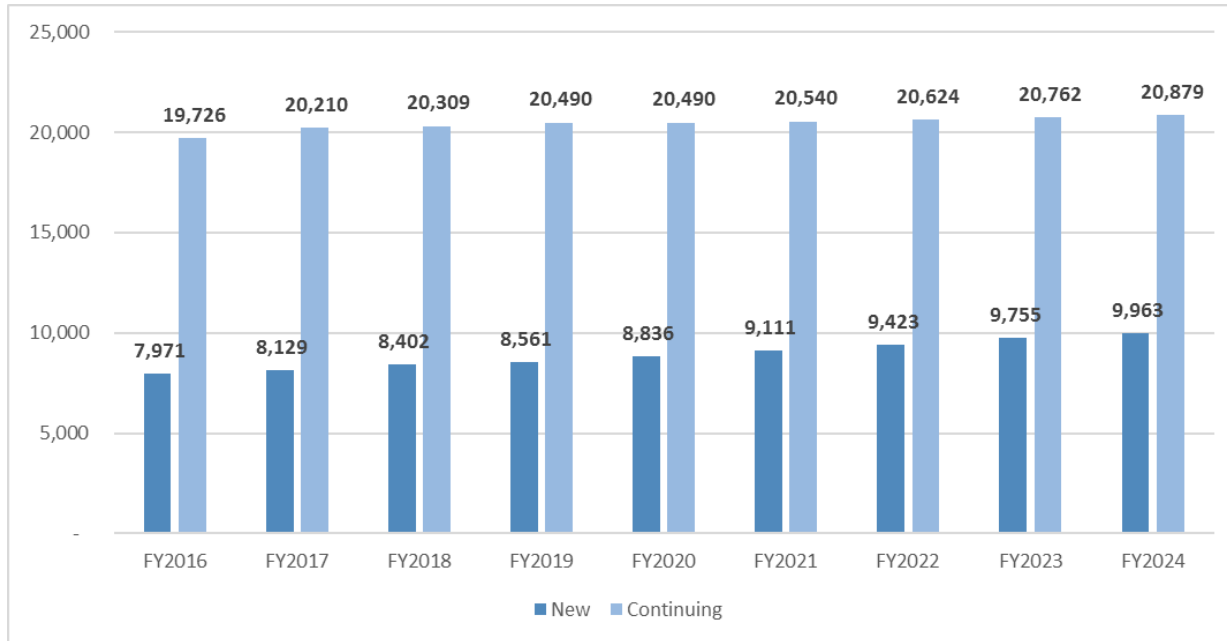
Amherst: Enrollment by Residency



<i>by Residency</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	19,142	19,665	19,827	20,135	20,016	20,166	20,341	20,585	20,866	21,025
<i>In State Growth</i>		2.7%	0.8%	1.6%	1.0%	0.8%	0.9%	1.2%	1.4%	0.8%
Out of State	8,555	8,674	8,884	9,054	9,035	9,159	9,309	9,462	9,650	9,816
<i>Out of State Growth</i>		1.4%	2.4%	1.9%	1.7%	1.4%	1.6%	1.6%	2.0%	1.7%
Total	27,697	28,339	28,711	29,189	29,051	29,326	29,651	30,047	30,516	30,841
<i>Total Growth</i>		2.3%	1.3%	1.7%	1.2%	0.9%	1.1%	1.3%	1.6%	1.1%

Source: Actuals from student profile.

Amherst: Enrollment by New v Continuing



<i>by New v Continuing Students (FTEs)</i>	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	7,971	8,129	8,402	8,856	8,561	8,836	9,111	9,423	9,755	9,963
<i>New Growth</i>		2.0%	3.4%	5.4%	1.9%	3.2%	3.1%	3.4%	3.5%	2.1%
Continuing	19,726	20,210	20,309	20,333	20,490	20,490	20,540	20,624	20,762	20,879
<i>Continuing Growth</i>		2.5%	0.5%	0.1%	0.9%	0.0%	0.2%	0.4%	0.7%	0.6%
Total	27,697	28,339	28,711	29,189	29,051	29,326	29,651	30,047	30,516	30,841
Total Growth		2.3%	1.3%	1.7%	1.2%	0.9%	1.1%	1.3%	1.6%	1.1%

Source: Actuals from student profile.

Amherst: Staffing

Amherst									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	64	49	49	50	50	50	50	50	50
Staff	317	374	374	375	375	375	375	375	375
Total Restricted	381	423	423	425	425	425	425	425	425
<i>FTE Change (#)</i>		42	-	2	-	-	-	-	-
Unrestricted General University Ops									
Faculty	1,486	1,509	1,527	1,560	1,570	1,580	1,598	1,616	1,634
Staff	2,611	2,692	2,702	2,710	2,718	2,722	2,726	2,730	2,734
Total General University Ops	4,097	4,201	4,229	4,270	4,288	4,302	4,324	4,346	4,368
<i>FTE Change (#)</i>		104	28	69	18	14	22	22	22
Unrestricted Aux./Independent Business									
Faculty	-	-	-	-	-	-	-	-	-
Staff	1,016	1,051	1,101	1,225	1,427	1,429	1,431	1,433	1,435
Total Aux./Independent Business	1,016	1,051	1,101	1,225	1,427	1,429	1,431	1,433	1,435
<i>FTE Change (#)</i>		35	50	174	202	2	2	2	2
Total Faculty & Staff	5,494	5,675	5,753	5,920	6,140	6,156	6,180	6,204	6,228
		3%	1%	4%	4%	0%	0%	0%	0%

Amherst: Staffing Ratios

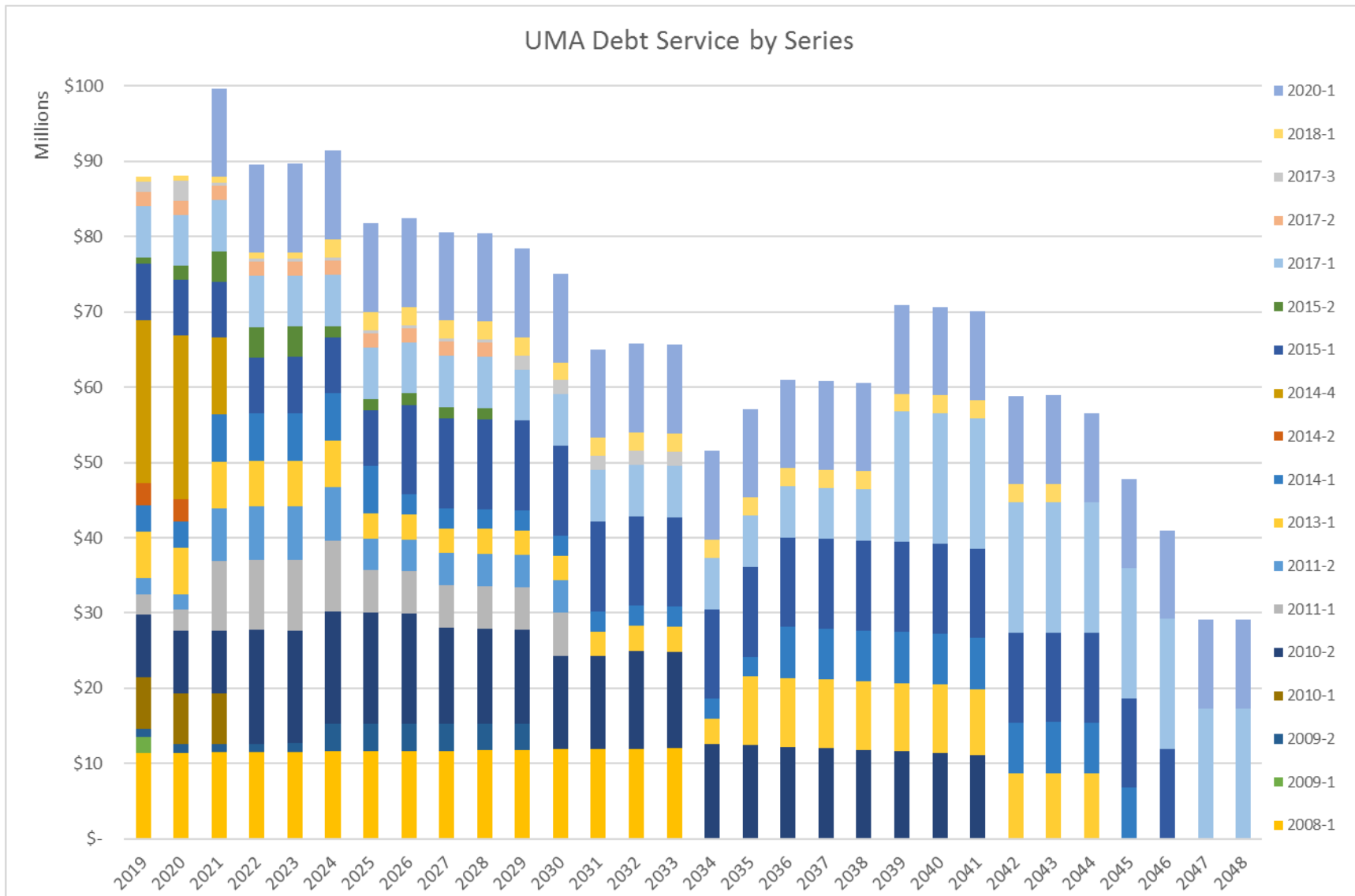
<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	28,339	28,711	29,051	29,326	29,651	30,047	30,516	30,841
Faculty (FTE)	1,550	1,558	1,610	1,620	1,630	1,648	1,666	1,684
Student-Faculty Ratio	18.3	18.4	18.0	18.1	18.2	18.2	18.3	18.3

<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	3,944	4,117	4,310	4,520	4,526	4,532	4,538	4,544
Faculty (FTE)	1,550	1,558	1,610	1,620	1,630	1,648	1,666	1,684
Staff-Faculty Ratio	2.5	2.6	2.7	2.8	2.8	2.8	2.7	2.7

<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	2,611	2,692	2,710	2,718	2,722	2,726	2,730	2,734
Faculty (FTE)	1,486	1,509	1,560	1,570	1,580	1,598	1,616	1,634
Staff-Faculty Ratio (E&G)	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7

Amherst: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	4.4%	2.8%	4.1%	3.0%	2.6%	0.9%	1.1%	1.0%	0.6%	1.3%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>46,270</i>	<i>30,624</i>	<i>48,150</i>	<i>36,052</i>	<i>33,114</i>	<i>11,819</i>	<i>14,483</i>	<i>13,208</i>	<i>9,019</i>	<i>18,066</i>	<i>30,333</i>	<i>31,505</i>
Operating Cash Flow Margin (%)	15.2%	14.6%	15.6%	14.8%	14.8%	13.6%	14.2%	13.8%	13.9%	14.1%	14.4%	14.8%
<i>Operating Cash Flow Margin (\$)</i>	<i>157,934</i>	<i>156,493</i>	<i>181,720</i>	<i>176,745</i>	<i>186,268</i>	<i>174,472</i>	<i>182,916</i>	<i>183,940</i>	<i>191,443</i>	<i>201,464</i>	<i>213,370</i>	<i>228,068</i>
Debt Service Burden (%)	6.2%	6.4%	6.4%	6.6%	6.8%	6.7%	6.9%	6.9%	7.4%	6.5%	6.4%	7.3%
Annual Debt Service Coverage (x)	2.5	2.3	2.5	2.3	2.2	2.0	2.1	2.0	1.9	2.2	2.3	2.1
Spendable Cash & Investments to Op Expenses (x)	0.43	0.46	0.42	0.46	0.46	0.41	0.42	0.41	0.41	0.43	0.45	0.46
Enrollment	27,007	27,098	27,696	28,340	28,711	29,189	29,051	29,326	29,651	30,047	30,516	30,841
<i>Enrollment (% Change)</i>		<i>0.3%</i>	<i>2.2%</i>	<i>2.3%</i>	<i>1.3%</i>		<i>1.2%</i>	<i>0.9%</i>	<i>1.1%</i>	<i>1.3%</i>	<i>1.6%</i>	<i>1.1%</i>



*Series 2020-1 is a future issuance

Boston

Boston: Assumptions

<i>\$ in thousands</i>	Assumption	\$ Value				
Revenue Assumptions	FY2020-24	FY20	FY21	FY22	FY23	FY24
University Level						
State Appropriation	0.0%	-				
State Collective Bargaining	2.0%	2,148	2,188	2,228	2,270	2,312
Modeled Tuition - In State UG	2.5%	2,319	2,426	2,536	2,651	2,769
Modeled Tuition - Out of State UG	3.0%	1,428	1,501	1,577	1,655	1,737
Modeled Tuition - Grad	3.0%	455	479	503	528	554
Campus Level						
Enrollment Increase	FY20 = 2% FY21-24 = 0.5%	3,191	865	885	906	926
Auxiliary: Parking Rates	FY21-24 remain flat at FY20 rates	375	-	-	-	-
Auxiliary: Ground Lease	FY20-24	1,025	(429)	15	17	16
Online: Rates & Enrollment	1.5% growth	471	488	506	525	544
Expense Assumptions						
University Level						
Collective Bargaining	2.0%	4,330	4,347	4,469	4,559	4,734
Fringe Rate	36.62% - 43.52%	3,149	3,789	4,375	4,516	4,661
Campus Level						
Expense Reductions to achieve margin	pending detailed plans	405	1,685	23	23	23

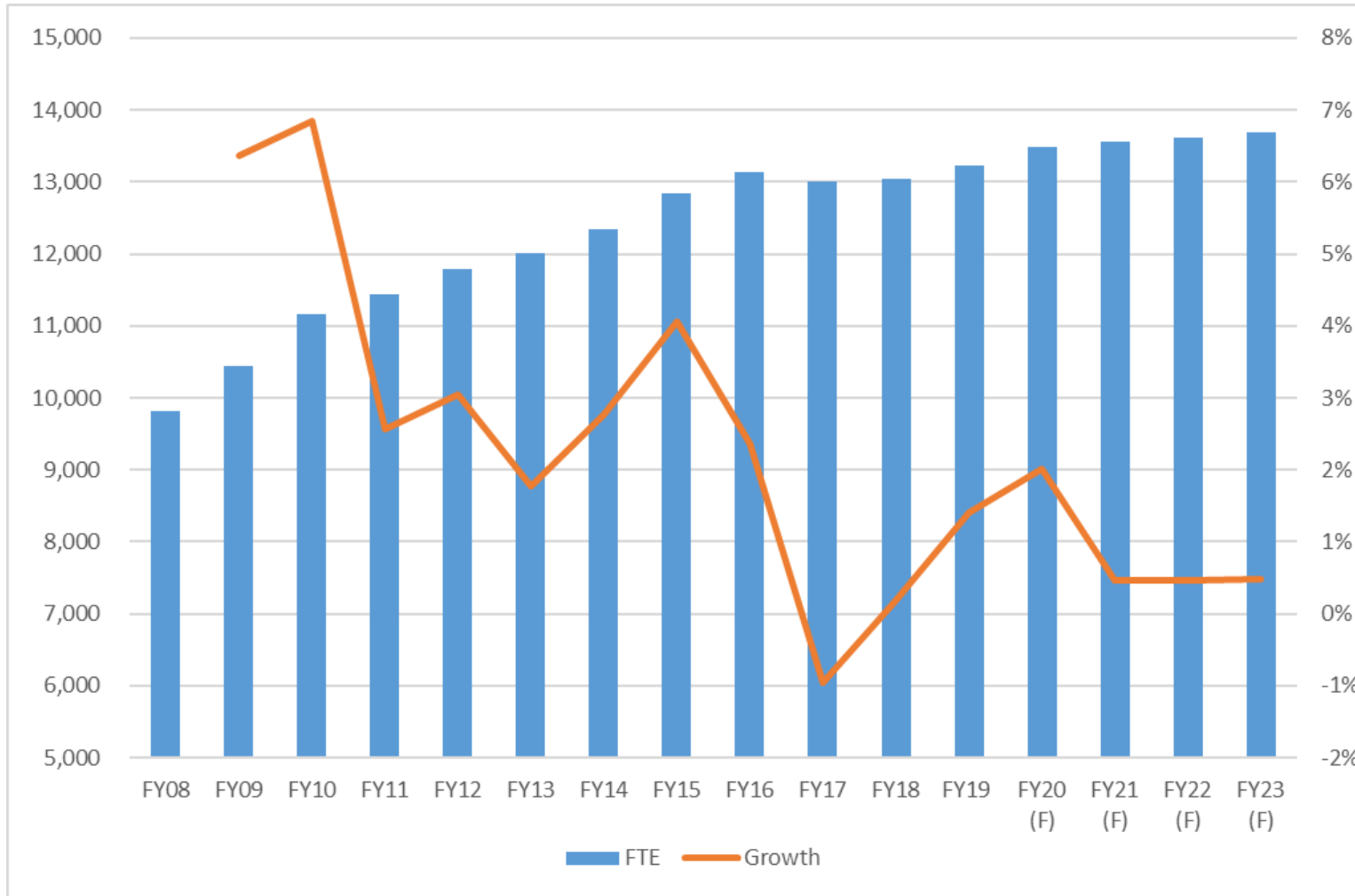
Boston: Revenue & Expenses

(\$ in Thousands)

BOSTON

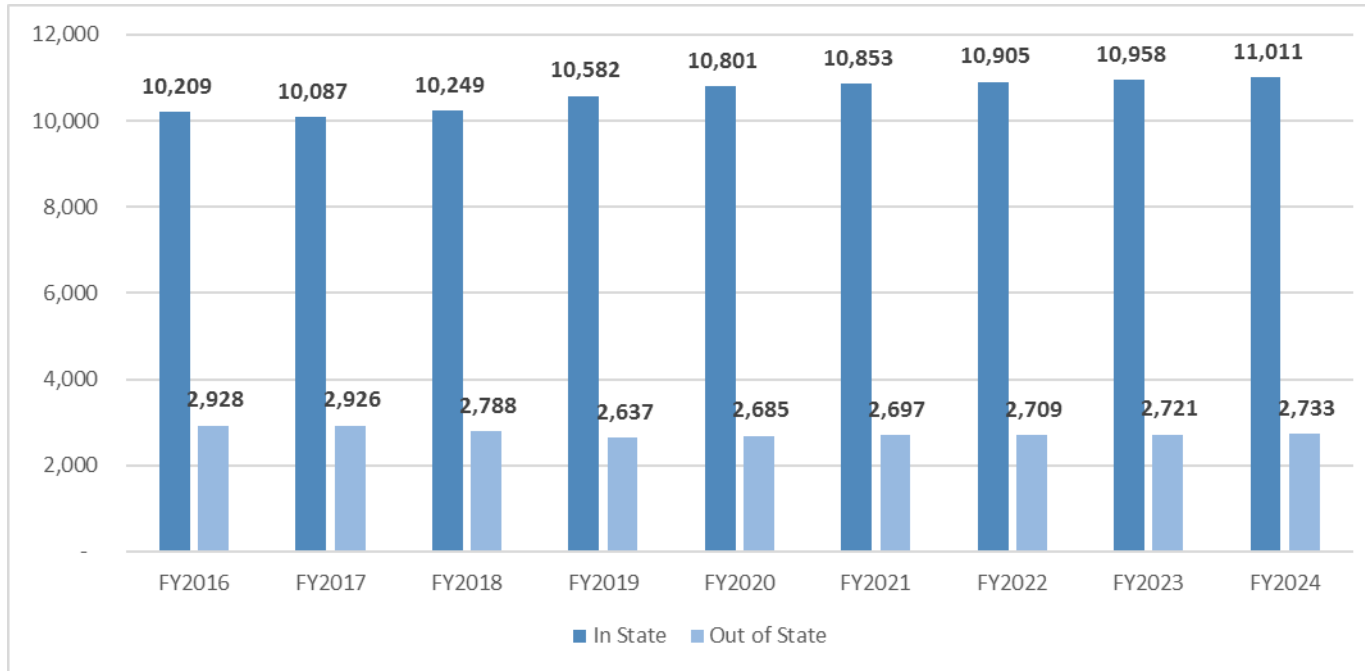
Revenues	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Gross Tuition & Fees	193,337	213,968	232,355	240,235	242,813	254,035	244,537	256,468	264,151	272,075	280,250	288,682
Tuition Discounts	(33,020)	(44,311)	(45,471)	(53,820)	(56,844)	(63,036)	(60,624)	(63,308)	(64,579)	(65,895)	(67,332)	(68,762)
Discount Rate	17.1%	20.7%	19.6%	22.4%	23.4%	24.8%	24.8%	24.7%	24.4%	24.2%	24.0%	23.8%
Net Tuition & Fees	160,317	169,657	186,884	186,415	185,970	190,999	183,913	193,160	199,572	206,181	212,918	219,920
Grants	47,435	48,561	53,927	58,201	56,212	58,201	51,429	56,211	56,211	56,211	56,211	56,211
Sales & Service, Educational	3,433	4,197	3,709	3,979	4,072	4,036	3,823	4,072	4,072	4,072	4,072	4,072
Auxiliary Enterprises	9,981	9,211	5,965	6,167	5,199	8,252	12,876	13,435	13,439	13,442	13,446	13,450
Other Operating	998	854	2,837	1,818	1,758	1,906	2,148	2,783	2,354	2,369	2,386	2,402
State appropriations	100,553	110,295	117,987	130,157	135,605	136,471	139,472	144,608	149,832	155,193	160,694	166,338
Other NonOperating	39,316	33,347	35,093	36,597	37,773	37,104	37,696	37,954	38,893	39,596	40,542	41,685
Total Revenues	362,033	376,122	406,402	423,334	426,589	436,969	431,357	452,223	464,373	477,065	490,269	504,078
% Growth		3.9%	8.1%	4.2%	0.8%	2.4%	1.1%	3.5%	2.7%	2.7%	2.8%	2.8%
Expenses	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Salaries & Fringe	229,512	244,755	266,100	275,330	269,465	269,623	263,328	274,628	280,945	289,055	297,381	307,487
Non-personnel	86,312	95,721	101,713	98,250	98,972	101,446	104,188	105,550	105,714	105,886	106,737	112,238
Scholarships and fellowships	11,654	12,254	16,047	16,161	17,180	18,771	17,180	17,926	18,452	18,999	19,591	20,187
Depreciation	13,284	16,572	18,988	22,246	24,433	29,474	28,474	32,664	33,135	34,936	36,206	34,795
Interest	6,665	8,133	9,064	12,476	14,152	17,186	18,186	21,315	21,633	21,190	20,551	19,290
Total Expenses	347,427	377,435	411,912	424,463	424,202	436,500	431,357	452,083	459,880	470,066	480,466	493,997
% Growth		8.6%	9.1%	3.0%	-0.1%	2.9%	1.7%	3.6%	1.7%	2.2%	2.2%	2.8%
Operating Margin	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Surplus / (Deficit)	9,547	1,822	(5,369)	(3,001)	2,387	1	0	140	4,494	7,000	9,804	10,082
UMass OM Calc	2.7%	0.5%	-1.3%	-0.7%	0.6%	0.0%	0.0%	0.0%	1.0%	1.5%	2.0%	2.0%

Boston: Enrollment Trend



Source: Actuals from student profile.

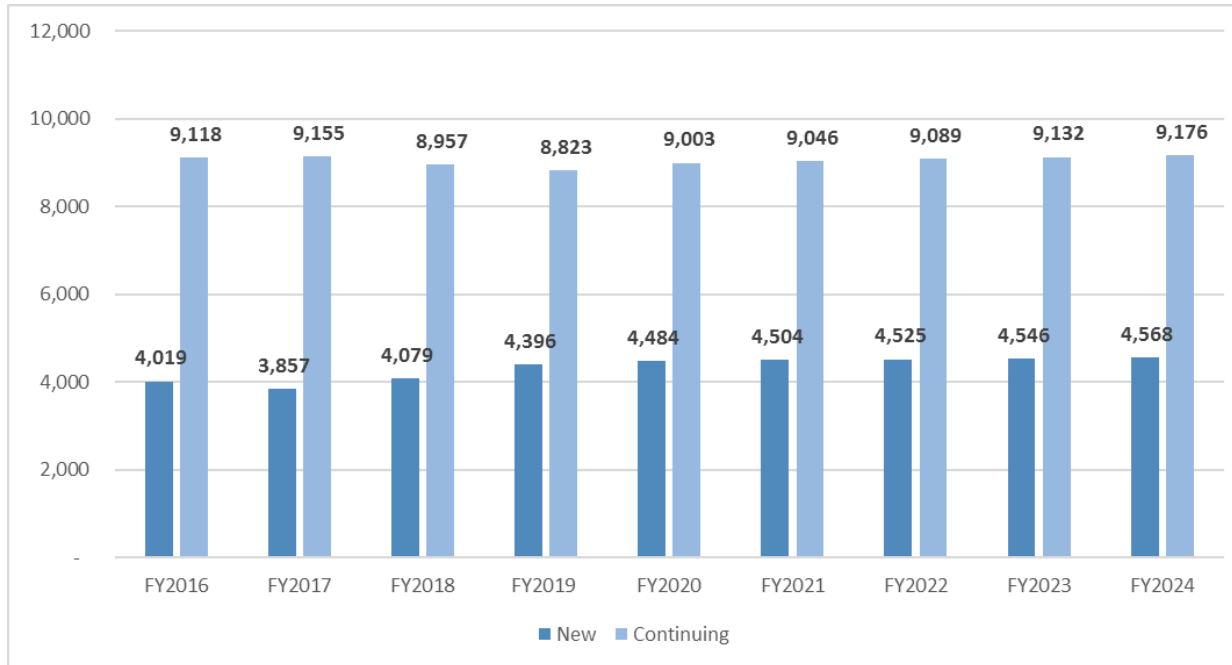
Boston: Enrollment by Residency



<i>by Residency</i>	Actual	Actual	Actual	Budget	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
<i>Students (FTEs)</i>	FY2016	FY2017	FY2018	FY2019 (B)	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
In State	10,209	10,087	10,249	10,419	10,582	10,801	10,853	10,905	10,958	11,011
<i>In State Growth</i>		-1.2%	1.6%	1.7%	3.3%	2.1%	0.5%	0.5%	0.5%	0.5%
Out of State	2,928	2,926	2,788	2,769	2,637	2,685	2,697	2,709	2,721	2,733
<i>Out of State Growth</i>		-0.1%	-4.7%	-0.7%	-5.4%	1.8%	0.4%	0.4%	0.4%	0.4%
Total	13,137	13,013	13,036	13,188	13,219	13,486	13,550	13,614	13,679	13,744
<i>Total Growth</i>		-0.9%	0.2%	1.2%	1.4%	2.0%	0.5%	0.5%	0.5%	0.5%

Source: Actuals from student profile.

Boston: Enrollment by New v Continuing



<i>by New v Continuing Students (FTEs)</i>	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	4,019	3,857	4,079	4,200	4,396	4,414	4,370	4,327	4,285	4,244
<i>New Growth</i>		-4.0%	5.8%	3.0%	7.8%	0.4%	-1.0%	-1.0%	-1.0%	-1.0%
Continuing	9,118	9,155	8,957	8,988	8,823	9,070	9,181	9,292	9,402	9,511
<i>Continuing Growth</i>		0.4%	-2.2%	0.3%	-1.5%	2.8%	1.2%	1.2%	1.2%	1.2%
Total	13,137	13,012	13,036	13,188	13,219	13,483	13,551	13,618	13,687	13,755
<i>Total Growth</i>		-1.0%	0.2%	1.2%	1.4%	2.0%	0.5%	0.5%	0.5%	0.5%

Source: Actuals from student profile.

Boston: Staffing

Boston									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	22	15	15	12	12	12	12	12	12
Staff	160	150	150	136	136	136	136	136	136
Total Restricted	182	165	165	148	148	148	148	148	148
<i>FTE Change (#)</i>		(17)	-	(17)	-	-	-	-	-
Unrestricted General University Ops									
Faculty	861	840	840	870	870	870	870	870	870
Staff	1,024	929	929	930	922	922	922	922	922
Total General University Ops	1,885	1,769	1,769	1,800	1,792	1,792	1,792	1,792	1,792
<i>FTE Change (#)</i>		(116)	-	31	(8)	-	-	-	-
Unrestricted Aux./Independent Business									
Faculty	-	-	-	-	-	-	-	-	-
Staff	61	43	43	40	40	40	40	40	40
Total Aux./Independent Business	61	43	43	40	40	40	40	40	40
<i>FTE Change (#)</i>		(18)	-	(3)	-	-	-	-	-
Total Faculty & Staff	2,128	1,977	1,977	1,988	1,980	1,980	1,980	1,980	1,980
		-7%	0%	1%	0%	0%	0%	0%	0%

Boston: Staffing Ratios

<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	13,013	13,036	13,219	13,486	13,550	13,614	13,679	13,744
Faculty (FTE)	883	855	882	882	882	882	882	882
Student-Faculty Ratio	14.7	15.2	15.0	15.3	15.4	15.4	15.5	15.6

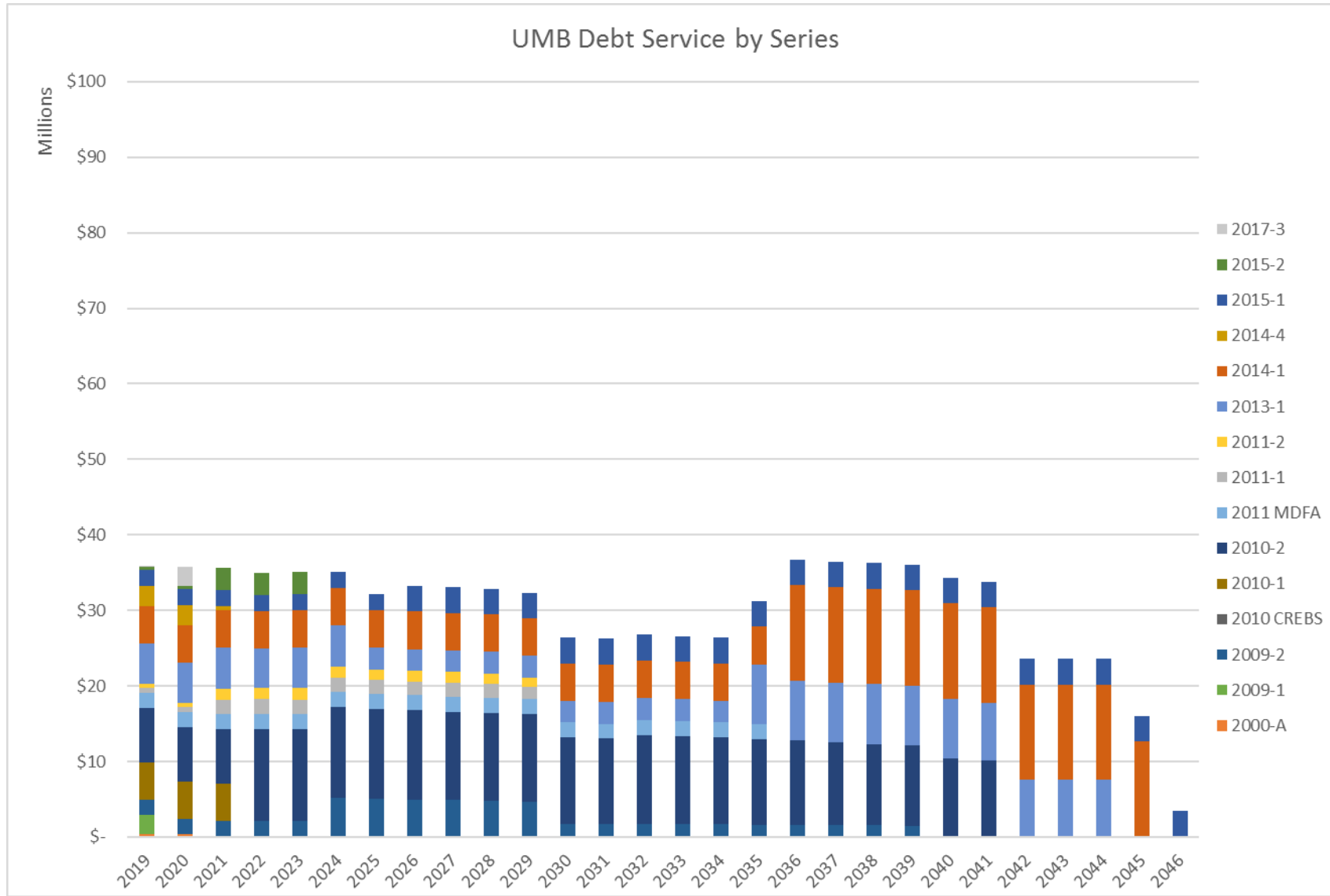
<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	1,245	1,122	1,106	1,073	1,058	1,015	973	973
Faculty (FTE)	883	855	882	882	882	882	882	882
Staff-Faculty Ratio	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1

<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	1,024	929	930	897	882	839	797	797
Faculty (FTE)	861	840	870	870	870	870	870	870
Staff-Faculty Ratio (E&G)	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9

Boston: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	2.7%	0.5%	-1.3%	-0.7%	0.6%	0.0%	0.0%	0.0%	1.0%	1.5%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>9,547</i>	<i>1,822</i>	<i>(5,369)</i>	<i>(3,001)</i>	<i>2,387</i>	<i>1</i>	<i>0</i>	<i>140</i>	<i>4,494</i>	<i>7,000</i>	<i>9,804</i>	<i>10,082</i>
Operating Cash Flow Margin (%)	8.0%	6.4%	5.4%	7.1%	9.0%	10.5%	11.2%	11.8%	12.6%	13.2%	13.6%	12.8%
<i>Operating Cash Flow Margin (\$)</i>	<i>27,509</i>	<i>23,220</i>	<i>21,192</i>	<i>28,684</i>	<i>36,282</i>	<i>43,416</i>	<i>46,393</i>	<i>50,678</i>	<i>55,571</i>	<i>59,854</i>	<i>63,579</i>	<i>61,836</i>
Debt Service Burden (%)*	4.5%	5.2%	4.9%	5.9%	6.3%	6.9%	7.2%	7.7%	7.6%	7.3%	7.1%	6.6%
Annual Debt Service Coverage (x)	1.7	1.2	1.0	1.1	1.4	1.4	1.5	1.5	1.6	1.7	1.9	1.9
Spendable Cash & Investments to Operating Expenses (x)	0.39	0.33	0.20	0.19	0.19	0.18	0.20	0.28	0.35	0.38	0.44	0.49
Enrollment	12,333	12,833	13,137	13,012	13,036	13,188	13,219	13,486	13,550	13,614	13,679	13,744
<i>Enrollment (% Change)</i>		<i>4.1%</i>	<i>2.4%</i>	<i>-1.0%</i>	<i>0.2%</i>		<i>1.4%</i>	<i>2.0%</i>	<i>0.5%</i>	<i>0.5%</i>	<i>0.5%</i>	<i>0.5%</i>

*FY20 Debt Burden excludes Bayside principal pre-payment.



Dartmouth

Dartmouth: Assumptions

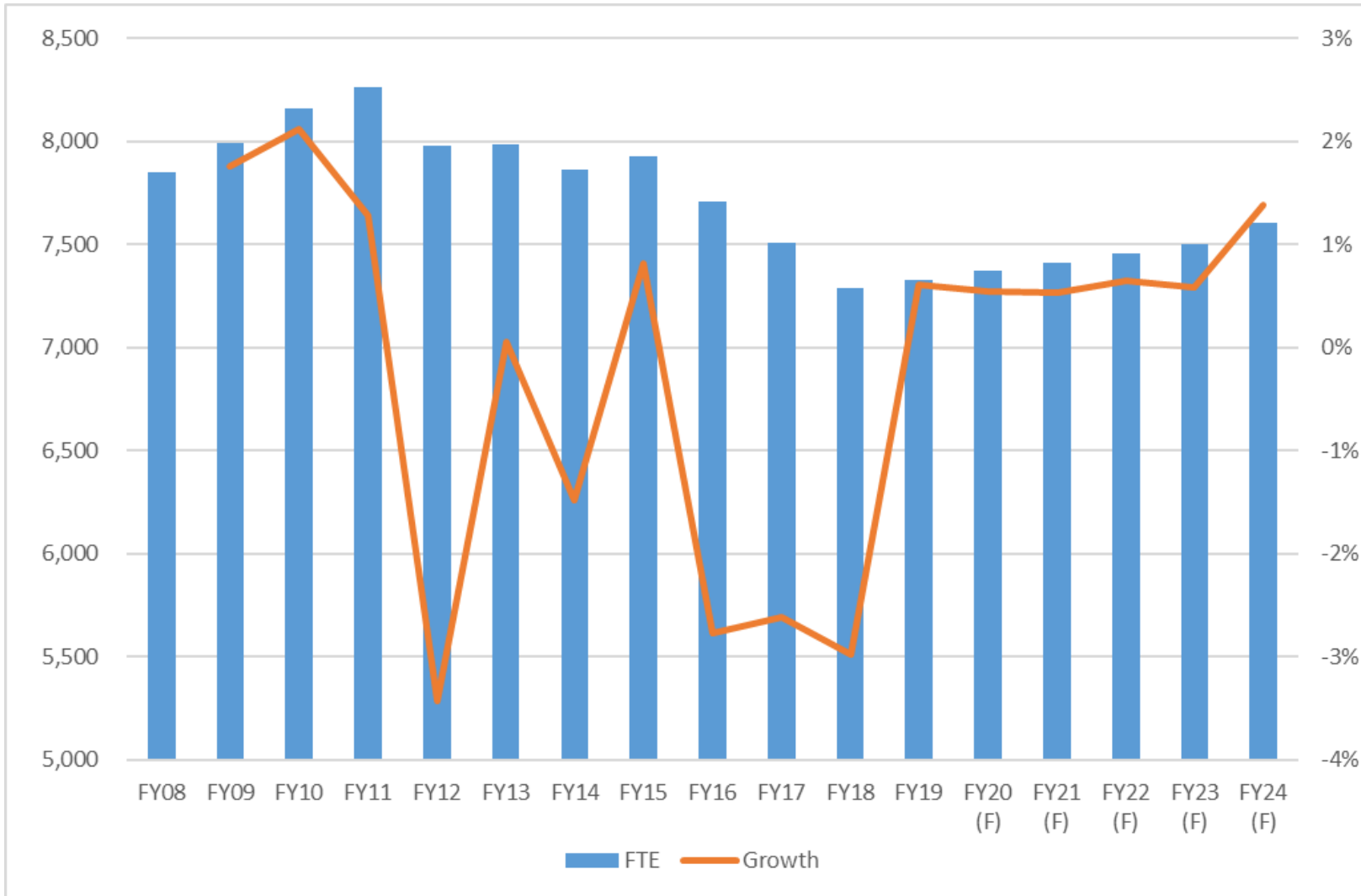
<i>\$ in thousands</i>	Assumption	\$ Value				
Revenue Assumptions	FY2020-24	FY20	FY21	FY22	FY23	FY24
University Level						
State Appropriation	0.0%	-	-	-	-	-
State Collective Bargaining	2.0%	1,251	1,274	1,298	1,322	1,347
Modeled Tuition - In State UG	2.5%	1,141	1,187	1,234	1,283	1,315
Modeled Tuition - Out of State UG	3.0%	268	280	292	306	315
Modeled Tuition - Grad	3.0%	290	303	316	331	341
Campus Level						
Enrollment Increase	FY20 = 1.3% FY21-23 = 0.5% FY24= 1.4%	800	1,048	1,318	1,722	2,134
Online: Rates & Enrollment		1,362	1,511	1,678	1,862	2,056
First year housing revenue eliminated	FY21		8,000			
Ground lease	FY21-23 annual payment		625	625	625	625
Proposed program fee increases	Annually 3%	156	161	165	170	175
Housing increases	5% for FY19-21 & 3% for FY22-24	1,700	(6,400)	1,600	1,200	786
Dining increases	Annually 3%	1,900	2,600	654	701	651
Parking rate changes	annual rates	716	722	742	759	768
UMassD Foundation Accounting Change (Rev & Exp)	FY19=\$2.3million; growing to \$3.5 million in FY24	2,530	2,530	3,000	3,500	3,500
Expense Assumptions						
University Level						
Collective Bargaining	2.0%	2,431	1,997	2,411	2,550	2,277
Fringe Rate	36.62% - 43.52%	2,382	2,614	2,795	2,913	3,038
Campus Level						
Expense Reductions to achieve margin		200	775	1,100		
Salary savings based on historical		1,500	1,500	1,500	1,500	1,500
Expenses associated with halls coming offline eliminated			2,300	2,300	2,300	2,300
Housing staff retained; reduce through attrition			275			
Demo of residence halls	FY23=\$500K; FY24+=\$2M				500	2,000
Debt : Dining Hall Project	P&I = \$756K - \$1.078M	756	917	1,078	1,078	1,078
Debt : Science & Engineering	P&I = \$1.294M		1,294	1,294	1,294	1,294
Depreciation for Dining at 40 years	\$6737K annually		337	673	673	673
Depreciation for SENG renovation over 20 Years	\$2.3M Annually			1,150	2,300	2,300

Dartmouth: Revenue & Expenses

(\$ in Thousands)

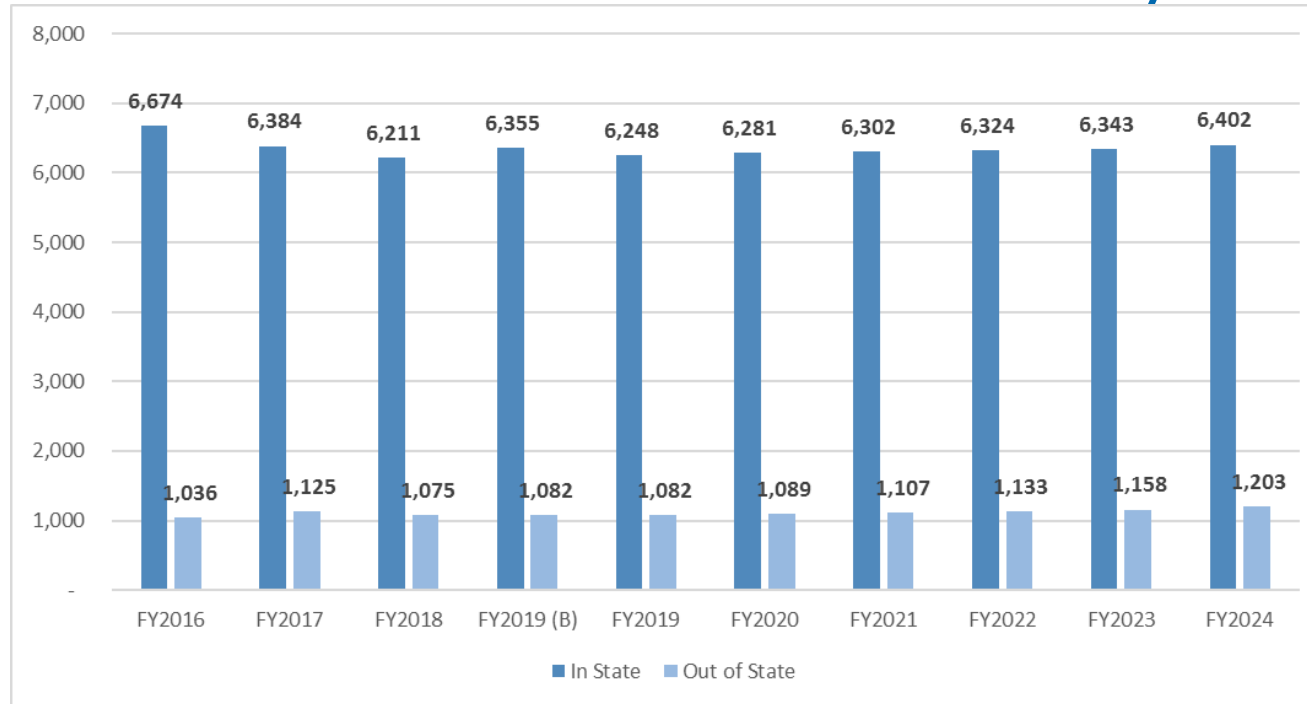
Revenues	DARTMOUTH												
	Actual					Budget		Projection		Forecast			
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	
Gross Tuition & Fees	106,046	108,033	112,467	115,421	116,766	121,776	120,060	124,499	129,059	133,717	138,816	144,225	
Tuition Discounts	(33,161)	(35,764)	(35,987)	(38,179)	(38,795)	(38,467)	(40,688)	(40,935)	(41,144)	(41,292)	(41,478)	(43,094)	
Discount Rate	31.3%	33.1%	32.0%	33.1%	33.2%	31.6%	33.9%	32.9%	31.9%	30.9%	29.9%	29.9%	
Net Tuition & Fees	72,885	72,269	76,480	77,242	77,971	83,309	78,542	83,564	87,915	92,425	97,338	101,130	
Grants	18,892	17,761	18,511	19,534	18,925	19,100	19,100	19,100	19,100	19,100	19,100	19,100	
Sales & Service, Educational	125	40	71	45	96	96	96	96	96	96	96	96	
Auxiliary Enterprises	48,220	47,374	48,835	48,349	47,666	51,911	49,944	55,184	51,379	53,750	55,739	57,185	
Other Operating	5,932	6,447	5,016	6,237	4,438	3,550	3,550	3,550	3,550	3,848	3,848	3,848	
State appropriations	64,633	70,006	75,971	80,436	83,740	84,198	86,263	89,139	92,135	95,199	98,346	101,577	
Other NonOperating	16,909	17,795	16,397	16,542	17,792	18,396	18,396	18,762	18,898	19,487	20,138	20,584	
Total Revenues	227,596	231,692	241,281	248,385	250,628	260,560	255,891	269,395	273,073	283,905	294,605	303,520	
% Growth		1.8%	4.1%	2.9%	0.9%	4.0%	2.1%	3.4%	1.4%	4.0%	3.8%	3.0%	
Expenses	Actual					Budget		Projection		Forecast			
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	
	Salaries & Fringe	134,040	138,028	142,174	142,247	150,061	150,699	151,346	157,953	162,383	167,237	172,296	177,455
Non-personnel	66,745	54,923	63,166	64,262	65,795	74,595	69,000	75,775	75,082	74,292	76,540	80,041	
Scholarships and fellowships	6,659	7,442	5,001	4,821	5,023	5,001	4,806	5,199	5,225	5,244	5,268	5,473	
Depreciation	15,064	16,663	17,904	18,647	20,481	21,503	21,741	21,814	22,311	23,998	25,348	25,348	
Interest	8,617	8,252	7,968	8,786	8,910	8,277	8,900	8,009	8,380	9,268	8,947	8,601	
Total Expenses	231,125	225,308	236,213	238,763	250,270	260,074	255,793	268,749	273,382	280,040	288,398	296,918	
% Growth		-2.5%	4.8%	1.1%	4.8%	3.9%	2.2%	3.3%	1.7%	2.4%	3.0%	3.0%	
Operating Margin	Actual					Budget		Projection		Forecast			
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	
	Surplus / (Deficit)	(3,351)	6,484	7,434	8,442	2,801	2,808	2,798	2,939	1,960	4,769	5,745	6,124
UMass OM Calc	-1.5%	2.8%	3.1%	3.4%	1.1%	1.1%	1.1%	1.1%	0.7%	1.7%	2.0%	2.0%	

Dartmouth: Enrollment Trend



Source: Actuals from student profile.

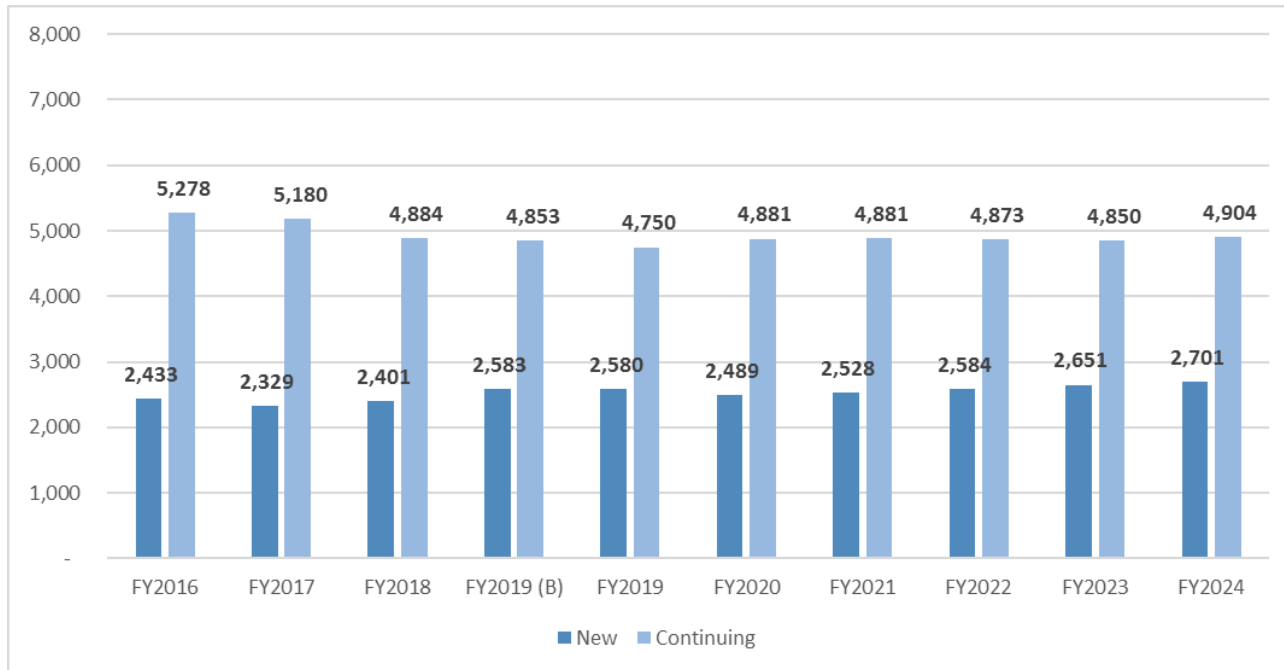
Dartmouth: Enrollment by Residency



<i>by Residency</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	6,674	6,384	6,211	6,355	6,248	6,281	6,302	6,324	6,343	6,402
<i>In State Growth</i>		-4.4%	-2.7%	2.3%	0.6%	0.5%	0.3%	0.3%	0.3%	0.9%
Out of State	1,036	1,125	1,075	1,082	1,082	1,089	1,107	1,133	1,158	1,203
<i>Out of State Growth</i>		8.6%	-4.5%	0.6%	0.6%	0.7%	1.6%	2.4%	2.2%	3.9%
Total	7,711	7,509	7,286	7,436	7,330	7,370	7,409	7,457	7,501	7,605
<i>Total Growth</i>		-2.6%	-3.0%	2.1%	0.6%	0.6%	0.5%	0.6%	0.6%	1.4%

Source: Actuals from student profile.

Dartmouth: Enrollment by New v Continuing



<i>by New v Continuing Students (FTEs)</i>	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	2,433	2,329	2,401	2,583	2,580	2,489	2,528	2,584	2,651	2,701
<i>New Growth</i>		-4.2%	3.1%	7.5%	7.4%	-3.5%	1.5%	2.2%	2.6%	1.9%
Continuing	5,278	5,180	4,884	4,853	4,750	4,881	4,881	4,873	4,850	4,904
<i>Continuing Growth</i>		-1.9%	-5.7%	-0.6%	-2.8%	2.8%	0.0%	-0.2%	-0.5%	1.1%
Total	7,711	7,509	7,286	7,435	7,330	7,370	7,409	7,457	7,501	7,605
Total Growth		-2.6%	-3.0%	2.1%	0.6%	0.5%	0.5%	0.6%	0.6%	1.4%

Source: Actuals from student profile.

Dartmouth: Staffing

Dartmouth									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	4	4	5	5	4	4	4	4	4
Staff	18	32	31	35	32	32	32	32	32
Total Restricted	22	36	36	40	36	36	36	36	36
<i>FTE Change (#)</i>		14	(0)	4	(4)	-	-	-	-
Unrestricted General University Ops									
Faculty	419	452	461	463	461	461	461	461	461
Staff	571	593	565	591	570	570	570	570	570
Total General University Ops	990	1,045	1,026	1,054	1,031	1,031	1,031	1,031	1,031
<i>FTE Change (#)</i>		55	(19)	9	(23)	-	-	-	-
Unrestricted Aux./Independent Business									
Faculty	-	-	-	-	-	-	-	-	-
Staff	107	106	100	105	106	106	106	106	106
Total Aux./Independent Business	107	106	100	105	106	106	106	106	106
<i>FTE Change (#)</i>		(1)	(6)	(1)	1	-	-	-	-
Total Faculty & Staff	1,119	1,187	1,162	1,199	1,173	1,173	1,173	1,173	1,173
		6%	-2%	1%	-2%	0%	0%	0%	0%

Dartmouth: Staffing Ratios

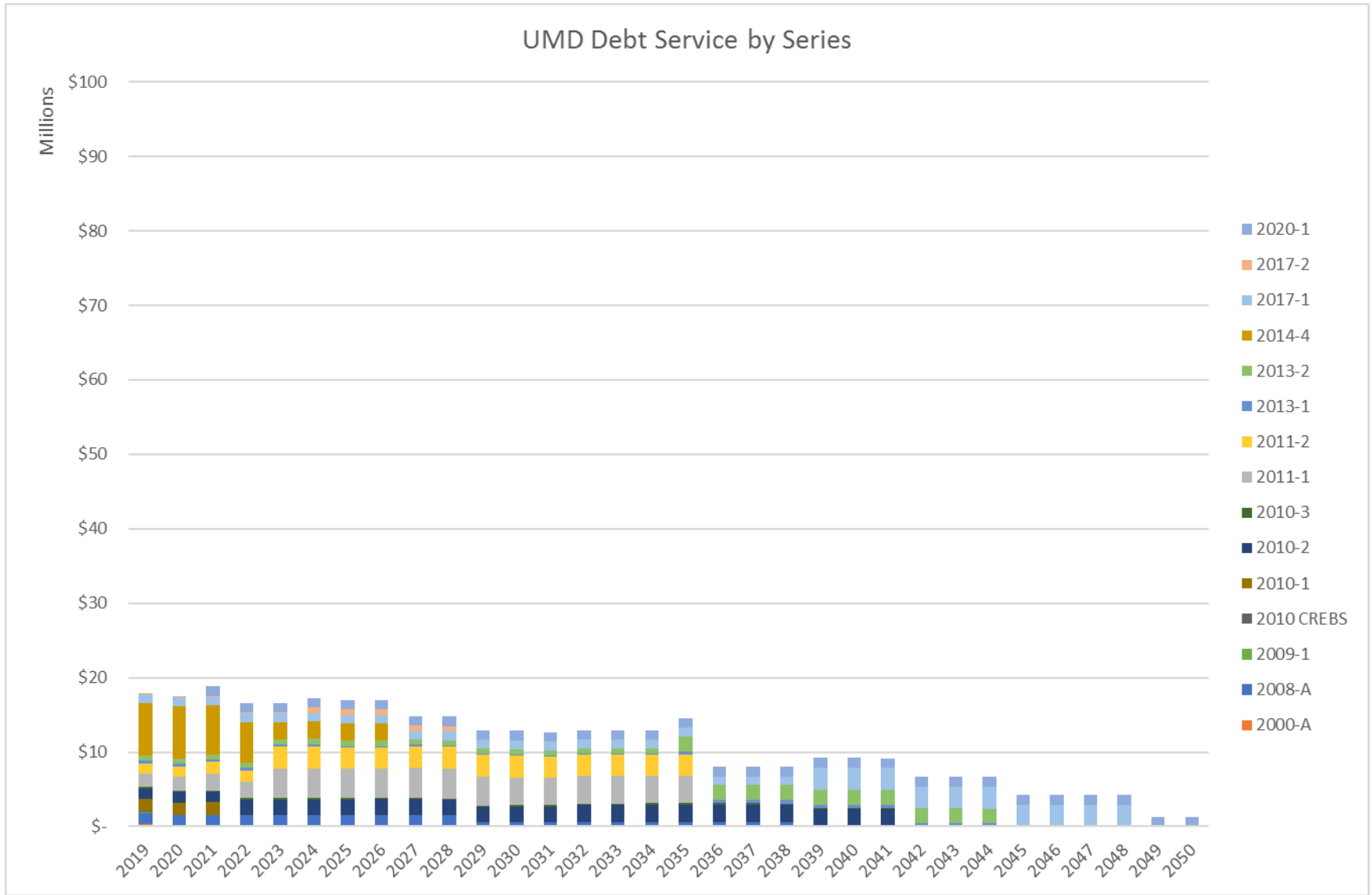
<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	7,558	7,286	7,435	7,370	7,409	7,457	7,501	7,605
Faculty (FTE)	423	456	468	465	465	465	465	465
Student-Faculty Ratio	17.9	16.0	15.9	15.8	15.9	16.0	16.1	16.3

<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	696	731	731	708	708	708	708	708
Faculty (FTE)	423	456	468	465	465	465	465	465
Staff-Faculty Ratio	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5

<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	571	593	591	570	570	570	570	570
Faculty (FTE)	419	452	463	461	461	461	461	461
Staff-Faculty Ratio (E&G)	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.2

Dartmouth: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	-1.5%	2.8%	3.1%	3.4%	1.1%	1.1%	1.1%	1.1%	0.7%	1.7%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>(3,351)</i>	6,484	7,434	8,442	2,801	2,808	2,798	2,939	1,960	4,769	5,745	6,124
Operating Cash Flow Margin (%)	7.6%	12.5%	12.1%	13.9%	10.6%	11.0%	10.8%	10.8%	10.7%	12.8%	13.5%	13.1%
<i>Operating Cash Flow Margin (\$)</i>	16,549	27,482	28,208	33,475	25,525	27,915	26,645	28,244	28,485	35,341	38,825	38,770
Debt Service Burden (%)	8.5%	9.3%	8.4%	7.8%	7.6%	7.1%	7.5%	6.8%	7.1%	6.5%	6.3%	6.4%
Annual Debt Service Coverage (x)	0.8	1.3	1.4	1.8	1.3	1.5	1.4	1.5	1.5	1.9	2.1	2.0
Spendable Cash & Investments to Operating Expenses (x)	0.15	0.16	0.17	0.20	0.24	0.21	0.24	0.27	0.27	0.29	0.33	0.38
Enrollment	7,865	7,930	7,766	7,558	7,286	7,436	7,330	7,370	7,409	7,457	7,501	7,605
<i>Enrollment (% Change)</i>		0.8%	-2.1%	-2.7%	-3.6%		0.6%	0.6%	0.5%	0.6%	0.6%	1.4%



*Series 2020-1 is a future issuance

Lowell

Lowell: Assumptions

<i>\$ in thousands</i>	Assumption	\$ Value				
Revenue Assumptions	FY2020-24	FY20	FY21	FY22	FY23	FY24
University Level						
State Appropriation	0.0%	-	-	-	-	-
State Collective Bargaining	2.0%	1,888	1,923	1,958	1,995	2,032
Modeled Tuition - In State UG	2.5%	2,468	2,538	2,611	2,686	2,759
Modeled Tuition - Out of State UG	3.0%	633	846	875	905	927
Modeled Tuition - Grad	3.0%	632	653	675	698	720
Campus Level						
Enrollment Increase	FY20 = 2% FY21-24 = 0.5%	3,080	3,242	4,608	4,967	5,351
Auxiliary: Parking Rates	Annualized rate increases	431	443	453	464	476
Online: Rates & Enrollment		10.0%	10.0%	10.0%	10.0%	10.0%
Expense Assumptions						
University Level						
Collective Bargaining	2.0%	3,807	3,149	3,782	3,995	3,585
Fringe Rate	36.62% - 43.52%	4,001	4,750	5,154	5,770	7,325
Campus Level						
Expense Reductions to achieve margin	pending detailed plans	5,534	7,197	8,607	8,944	5,266
Debt	FY20 borrowing	80,650	77,962	75,139	72,175	69,063

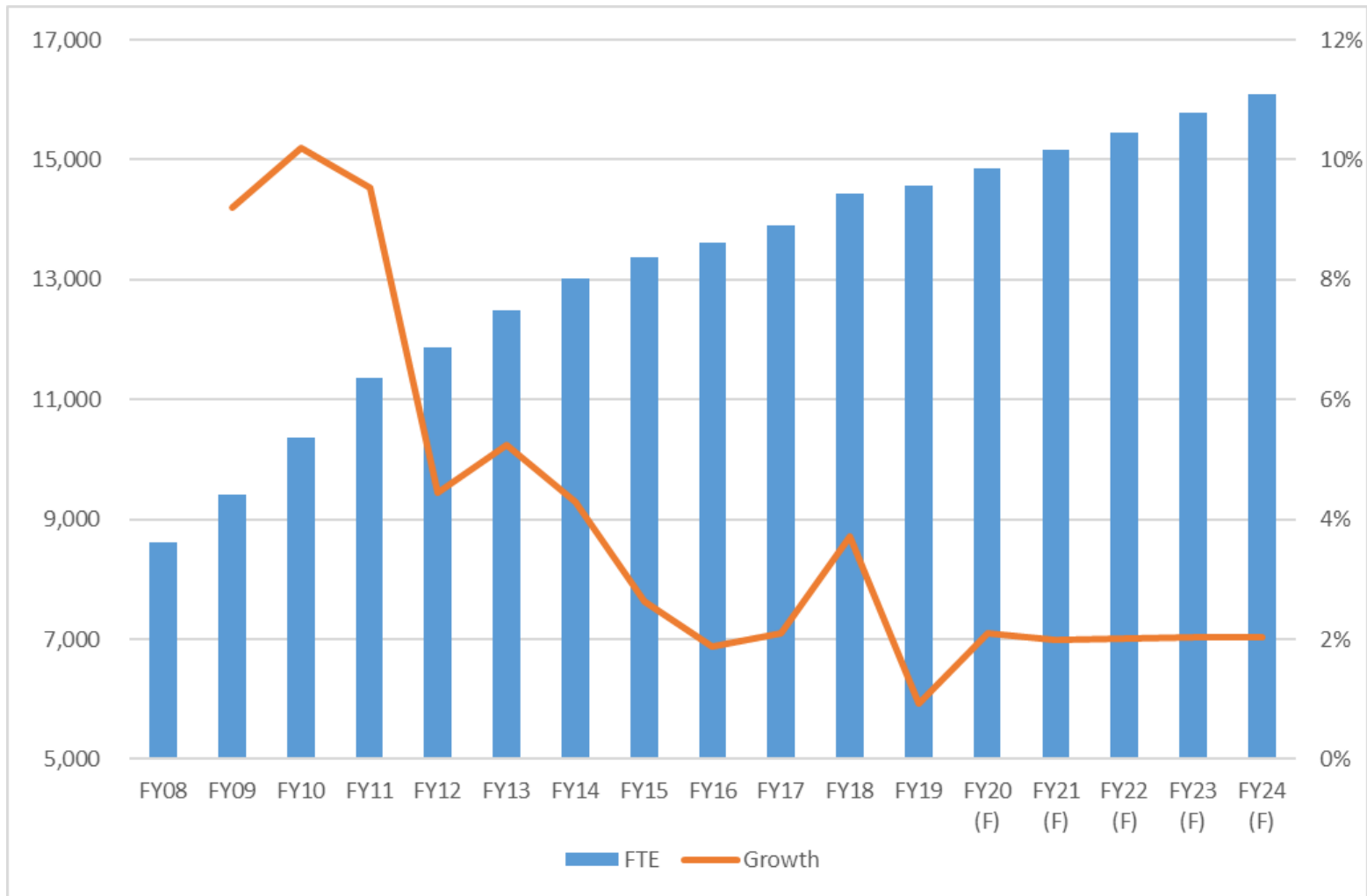
Lowell: Revenue & Expenses

(\$ in Thousands)

LOWELL

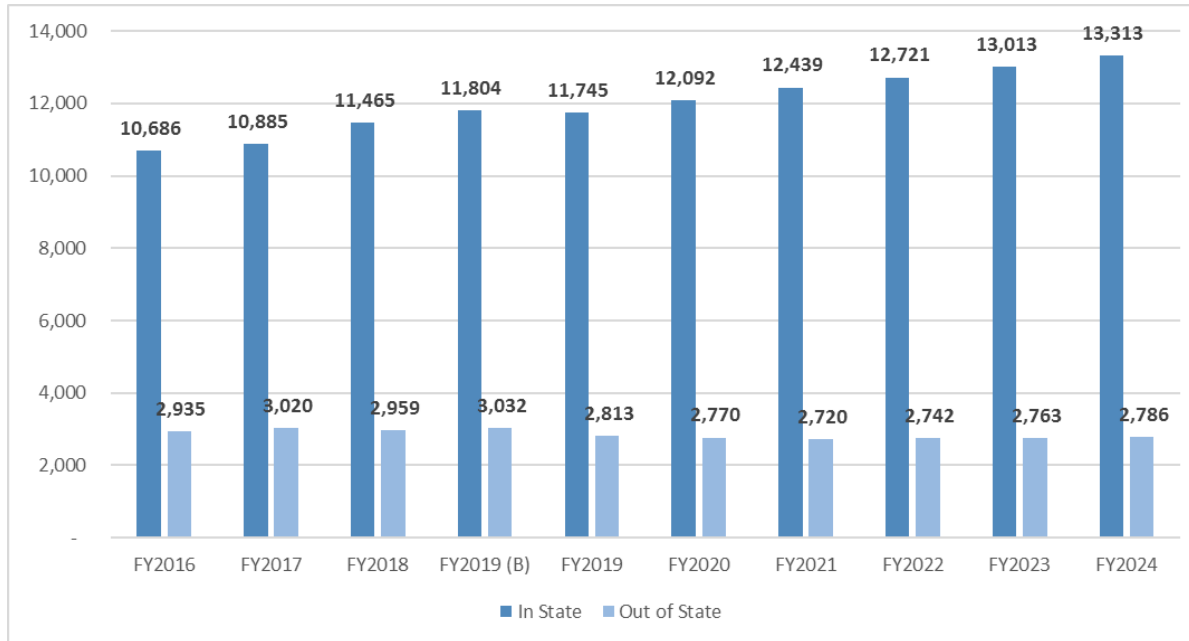
Revenues	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Gross Tuition & Fees	189,808	205,731	224,065	243,228	256,002	269,821	264,831	276,247	289,533	304,762	320,871	337,904
Tuition Discounts	(37,245)	(40,768)	(45,417)	(54,517)	(61,218)	(64,403)	(64,490)	(67,188)	(69,743)	(72,573)	(75,499)	(78,977)
Discount Rate	19.6%	19.8%	20.3%	22.4%	23.9%	23.9%	24.4%	24.3%	24.1%	23.8%	23.5%	23.4%
Net Tuition & Fees	152,563	164,963	178,648	188,711	194,784	205,418	200,341	209,059	219,791	232,189	245,372	258,926
Grants	40,013	44,186	41,346	42,190	44,875	46,836	46,836	49,042	51,357	53,783	56,326	58,992
Sales & Service, Educational	33	66	89	767	925	814	814	838	863	889	916	943
Auxiliary Enterprises	45,101	52,725	57,782	60,570	65,030	66,774	67,461	69,739	71,491	73,289	75,133	77,024
Other Operating	6,726	8,205	7,984	7,008	7,438	7,435	7,835	8,070	8,312	8,561	8,818	9,082
State appropriations	88,136	96,633	104,725	111,859	117,668	120,354	122,942	127,548	132,274	136,899	141,644	145,790
Other NonOperating	29,329	23,378	27,826	28,738	28,322	28,032	29,531	30,574	31,253	31,726	32,270	32,872
Total Revenues	361,901	390,156	418,400	439,843	459,042	475,662	475,760	494,870	515,341	537,336	560,478	583,630
% Growth		7.8%	7.2%	5.1%	4.4%	3.6%	3.6%	4.0%	4.1%	4.3%	4.3%	4.1%
Expenses	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Salaries & Fringe	203,762	219,200	239,536	249,312	262,133	273,894	277,038	286,952	298,232	310,531	324,615	343,435
Non-personnel	101,991	111,693	114,923	116,761	121,734	124,252	123,620	129,628	134,868	139,200	142,568	144,787
Scholarships and fellowships	9,932	9,383	9,134	9,316	9,983	11,261	10,454	10,891	11,305	11,764	12,239	12,802
Depreciation	23,926	28,666	32,985	34,127	37,806	39,236	39,867	41,827	43,184	45,150	45,902	47,634
Interest	12,311	18,371	21,272	18,790	19,896	21,500	21,514	22,796	25,091	24,471	23,824	23,224
Total Expenses	351,922	387,313	417,850	428,306	451,552	470,143	472,493	492,095	512,681	531,115	549,146	571,882
% Growth		10.1%	7.9%	2.5%	5.4%	4.1%	4.6%	4.7%	4.2%	3.6%	3.4%	4.1%
Operating Margin	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Surplus / (Deficit)	3,671	2,928	696	9,424	6,779	3,167	3,267	2,676	2,559	6,121	11,233	11,648
UMass OM Calc	1.0%	0.8%	0.2%	2.2%	1.5%	0.7%	0.7%	0.5%	0.5%	1.1%	2.0%	2.0%

Lowell: Enrollment Trend



Source: Actuals from student profile.

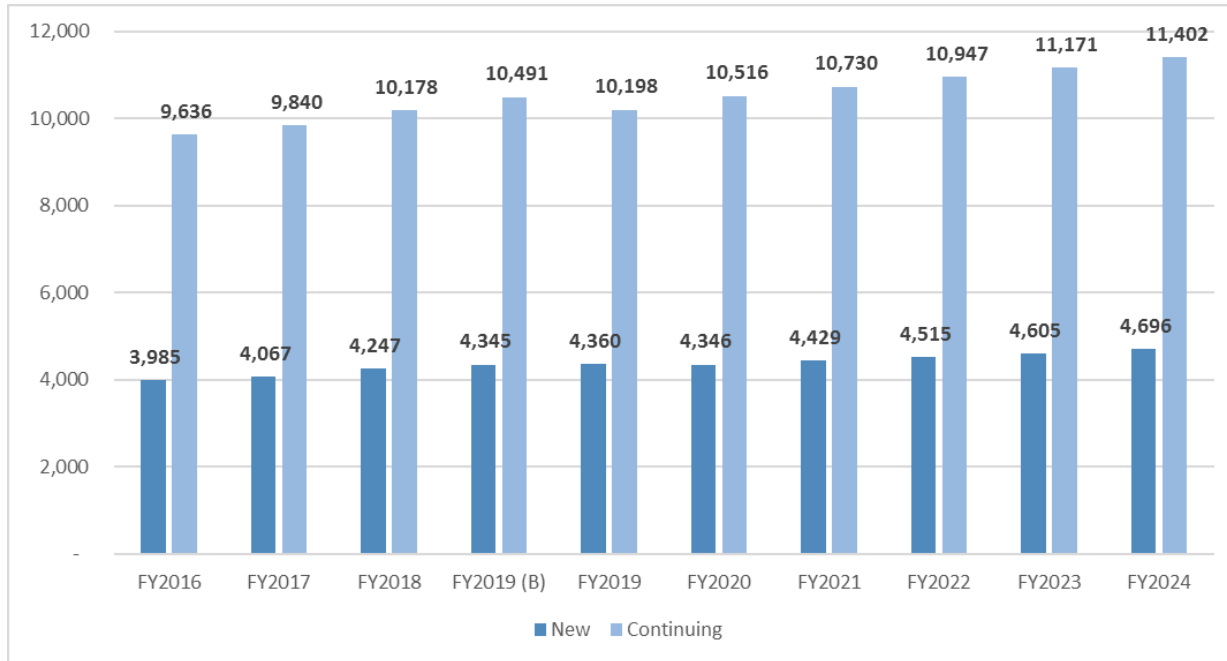
Lowell: Enrollment by Residency



<i>by Residency</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	10,686	10,885	11,465	11,804	11,745	12,092	12,439	12,721	13,013	13,313
<i>In State Growth</i>		1.9%	5.3%	3.0%	2.4%	3.0%	2.9%	2.3%	2.3%	2.3%
Out of State	2,935	3,020	2,959	3,032	2,813	2,770	2,720	2,742	2,763	2,786
<i>Out of State Growth</i>		2.9%	-2.0%	2.5%	-4.9%	-1.5%	-1.8%	0.8%	0.8%	0.8%
Total	13,621	13,905	14,424	14,836	14,558	14,862	15,159	15,463	15,776	16,098
<i>Total Growth</i>		2.1%	3.7%	2.9%	0.9%	2.1%	2.0%	2.0%	2.0%	2.0%

Source: Actuals from student profile.

Lowell: Enrollment by New v Continuing



<i>by New v Continuing</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	3,985	4,067	4,247	4,345	4,360	4,346	4,429	4,515	4,605	4,696
<i>New Growth</i>		2.1%	4.4%	2.3%	2.7%	-0.3%	1.9%	2.0%	2.0%	2.0%
Continuing	9,636	9,840	10,178	10,491	10,198	10,516	10,730	10,947	11,171	11,402
<i>Continuing Growth</i>		2.1%	3.4%	3.1%	0.2%	3.1%	2.0%	2.0%	2.0%	2.1%
Total	13,621	13,907	14,425	14,836	14,558	14,862	15,159	15,463	15,776	16,098
<i>Total Growth</i>		2.1%	3.7%	2.8%	0.9%	2.1%	2.0%	2.0%	2.0%	2.0%

Source: Actuals from student profile.
Growth driven by UG student enrollment.

Lowell: Staffing

Lowell									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	8	10	10	10	10	10	11	11	11
Staff	78	82	100	89	90	91	92	93	94
Total Restricted	86	92	110	99	100	101	103	104	105
<i>FTE Change (#)</i>		6	18	7	1	1	2	1	1
Unrestricted General University Ops									
Faculty	775	797	832	832	839	849	858	867	876
Staff	966	985	989	1,007	1,010	1,015	1,019	1,024	1,029
Total General University Ops	1,741	1,782	1,821	1,839	1,849	1,864	1,877	1,891	1,905
<i>FTE Change (#)</i>		42	39	57	10	15	13	14	14
Unrestricted Aux./Independent Business									
Faculty	-	-	-	-	-	-	-	-	-
Staff	38	38	89	78	78	78	78	78	78
Total Aux./Independent Business	38	38	89	78	78	78	78	78	78
<i>FTE Change (#)</i>		-	51	40	-	-	-	-	-
Total Faculty & Staff	1,865	1,912	2,020	2,016	2,027	2,043	2,058	2,073	2,088
		3%	6%	5%	1%	1%	1%	1%	1%

Lowell: Staffing Ratios

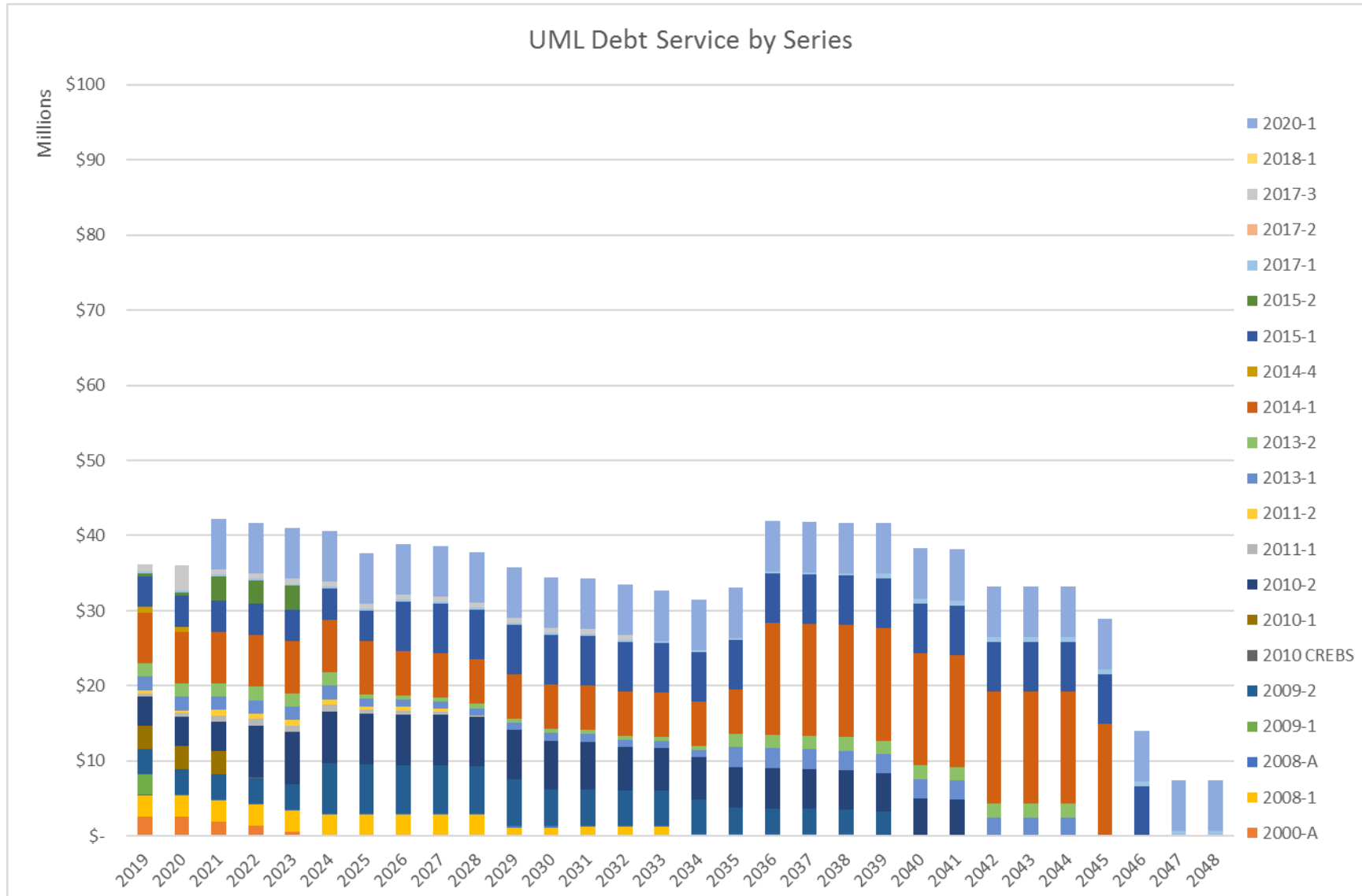
<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	13,905	14,424	14,567	14,862	15,159	15,463	15,776	16,098
Faculty (FTE)	783	807	842	849	859	869	878	887
Student-Faculty Ratio	17.8	17.9	17.3	17.5	17.6	17.8	18.0	18.1

<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	1,082	1,105	1,174	1,178	1,184	1,189	1,195	1,201
Faculty (FTE)	783	807	842	849	859	869	878	887
Staff-Faculty Ratio	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	966	985	1,007	1,010	1,015	1,019	1,024	1,029
Faculty (FTE)	775	797	832	839	849	858	867	876
Staff-Faculty Ratio (E&G)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Lowell: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	1.0%	0.8%	0.2%	2.2%	1.5%	0.7%	0.7%	0.5%	0.5%	1.1%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>3,671</i>	<i>2,928</i>	<i>696</i>	<i>9,424</i>	<i>6,779</i>	<i>3,167</i>	<i>3,267</i>	<i>2,676</i>	<i>2,559</i>	<i>6,121</i>	<i>11,233</i>	<i>11,648</i>
Operating Cash Flow Margin (%)	11.8%	13.3%	12.8%	14.6%	14.3%	13.8%	13.7%	13.7%	13.8%	14.1%	14.5%	14.2%
<i>Operating Cash Flow Margin (\$)</i>	<i>40,839</i>	<i>50,613</i>	<i>51,839</i>	<i>62,350</i>	<i>64,009</i>	<i>63,593</i>	<i>63,642</i>	<i>66,170</i>	<i>69,334</i>	<i>74,055</i>	<i>79,312</i>	<i>80,857</i>
Debt Service Burden (%)	6.3%	7.6%	7.5%	7.3%	7.4%	7.5%	7.5%	7.5%	8.0%	7.8%	7.4%	7.0%
Annual Debt Service Coverage (x)	1.8	1.7	1.7	2.0	1.9	1.8	1.8	1.8	1.7	1.8	2.0	2.0
Spendable Cash & Investments to Operating Expenses (x)	0.36	0.34	0.34	0.31	0.29	0.22	0.25	0.26	0.25	0.26	0.27	0.27
Enrollment	13,022	13,369	13,619	13,906	14,425	14,836	14,558	14,862	15,159	15,463	15,776	16,098
<i>Enrollment (% Change)</i>		<i>2.7%</i>	<i>1.9%</i>	<i>2.1%</i>	<i>3.7%</i>		<i>0.9%</i>	<i>2.1%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>



*Series 2020-1 is a future issuance

Medical School

Medical: Assumptions

<i>\$ in thousands</i>	Assumption	\$ Value				
Revenue Assumptions	FY2020-24	FY20	FY21	FY22	FY23	FY24
University Level						
State Appropriation	0.0%	-	-	-	-	-
State Collective Bargaining	2.0%	685	698	711	724	737
Modeled Tuition - Grad	3.0%	862	902	912	985	1,009
Campus Level						
Enrollment Increase	FY20 = 2% FY21 = 1%; FY22 - FY24 = 0%	1,746	802	-	-	-
Auxiliary	Annualized rate increases	586	805	826	914	1,042
Online: Rates & Enrollment		18	19	19	20	20
Expense Assumptions						
University Level						
Collective Bargaining	2.0%	8,249	7,867	8,423	8,676	8,662
Fringe Rate	Level w/ current rates	-	-	-	-	-
Campus Level						
Debt	No planned borrowing	-	-	-	-	-

Medical: Revenue & Expenses

(\$ in Thousands)

MEDICAL SCHOOL

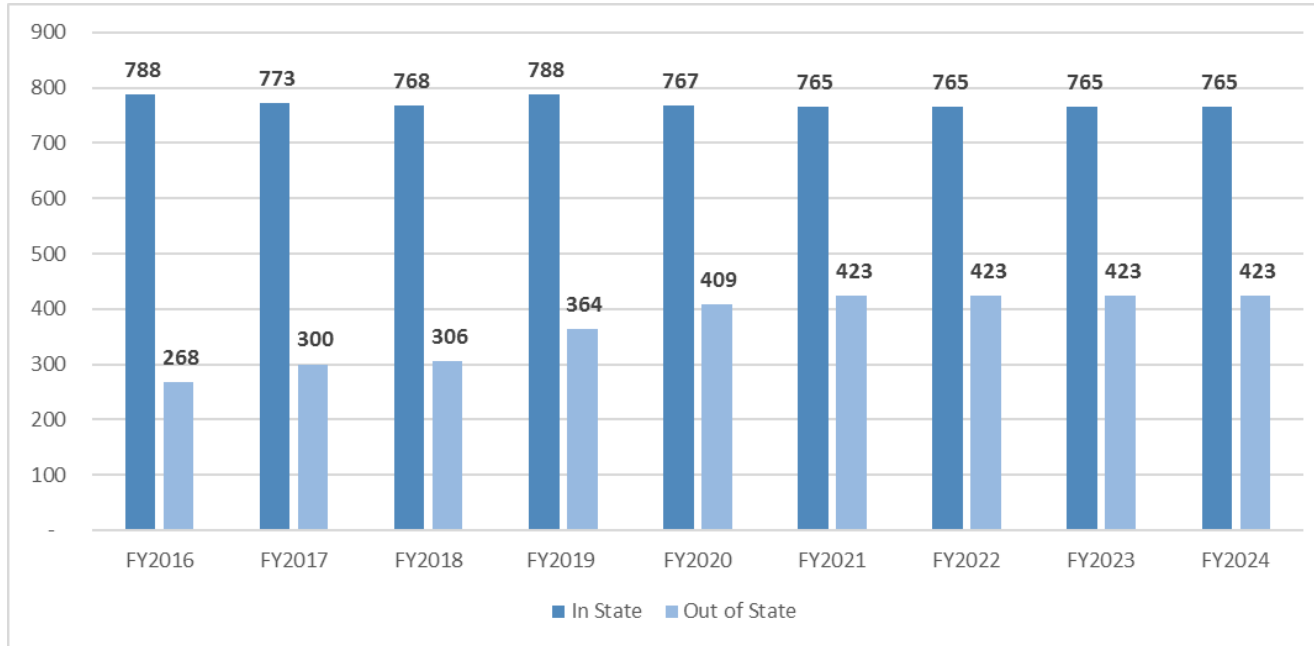
Revenues	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Gross Tuition & Fees	18,528	18,929	20,881	24,206	28,609	31,062	31,062	35,636	37,553	38,635	39,802	40,995
Tuition Discounts	(2,283)	(2,060)	(2,269)	(2,751)	(3,320)	(3,626)	(3,626)	(5,592)	(5,805)	(5,975)	(6,157)	(6,341)
<i>Discount Rate</i>	12.3%	10.9%	10.9%	11.4%	11.6%	11.7%	11.7%	15.7%	15.5%	15.5%	15.5%	15.5%
Net Tuition & Fees	16,245	16,869	18,612	21,455	25,289	27,436	27,436	30,044	31,748	32,660	33,645	34,654
Grants	250,994	254,296	258,499	275,662	269,721	267,101	267,101	278,933	291,883	305,082	317,838	327,373
Sales & Service, Educational	8,045	10,261	12,443	12,790	14,023	12,359	12,359	16,767	17,186	17,600	17,990	18,530
Auxiliary Enterprises	31,424	29,099	29,271	29,626	30,797	31,607	31,607	32,193	32,998	33,824	34,738	35,780
Other Operating	216,998	91,425	258,246	190,611	268,909	184,249	184,249	171,971	174,950	175,839	177,949	183,547
State appropriations	44,620	45,843	50,634	52,250	54,560	55,816	55,816	56,882	58,027	59,203	60,380	62,191
Other NonOperating	33,851	14,224	5,699	37,945	27,800	23,490	23,490	26,156	26,556	27,242	28,581	29,439
Independent Business Lines	335,527	312,077	330,259	371,618	274,555	294,013	294,013	325,368	342,067	359,119	377,260	388,318
Total Revenues	937,704	774,094	963,663	991,957	965,654	896,071	896,071	938,314	975,415	1,010,569	1,048,381	1,079,832
% Growth		-17.4%	24.5%	2.9%	-2.7%	-7.2%	0.0%	4.7%	4.0%	3.6%	3.7%	3.0%
Expenses	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Salaries & Fringe	370,686	383,248	407,159	407,304	416,112	443,163	443,163	464,361	480,536	496,711	510,082	526,584
Non-personnel	477,282	331,473	484,916	439,960	435,266	331,639	331,639	349,425	368,478	384,704	405,789	419,063
Scholarships and fellowships	1,935	-	-	-	-	-	-	-	-	-	-	-
Depreciation	63,285	63,166	65,133	64,801	65,013	68,973	68,973	69,663	71,864	74,349	77,970	80,297
Interest	36,191	34,009	30,658	30,067	26,753	30,611	30,611	30,161	28,795	27,600	26,090	24,590
Total Expenses	949,379	811,896	987,866	942,132	943,144	874,386	874,386	913,610	949,673	983,364	1,019,931	1,050,534
% Growth		-14.5%	21.7%	-4.6%	0.1%	-7.3%	0.0%	4.5%	3.9%	3.5%	3.7%	3.0%
Operating Margin	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Surplus / (Deficit)	(33,230)	(32,614)	(10,599)	30,671	21,155	17,902	17,902	18,726	19,503	20,088	20,943	21,447
UMass OM Calc	-3.6%	-4.2%	-1.1%	3.2%	2.2%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Medical: Enrollment Trend



Source: Actuals from student profile.

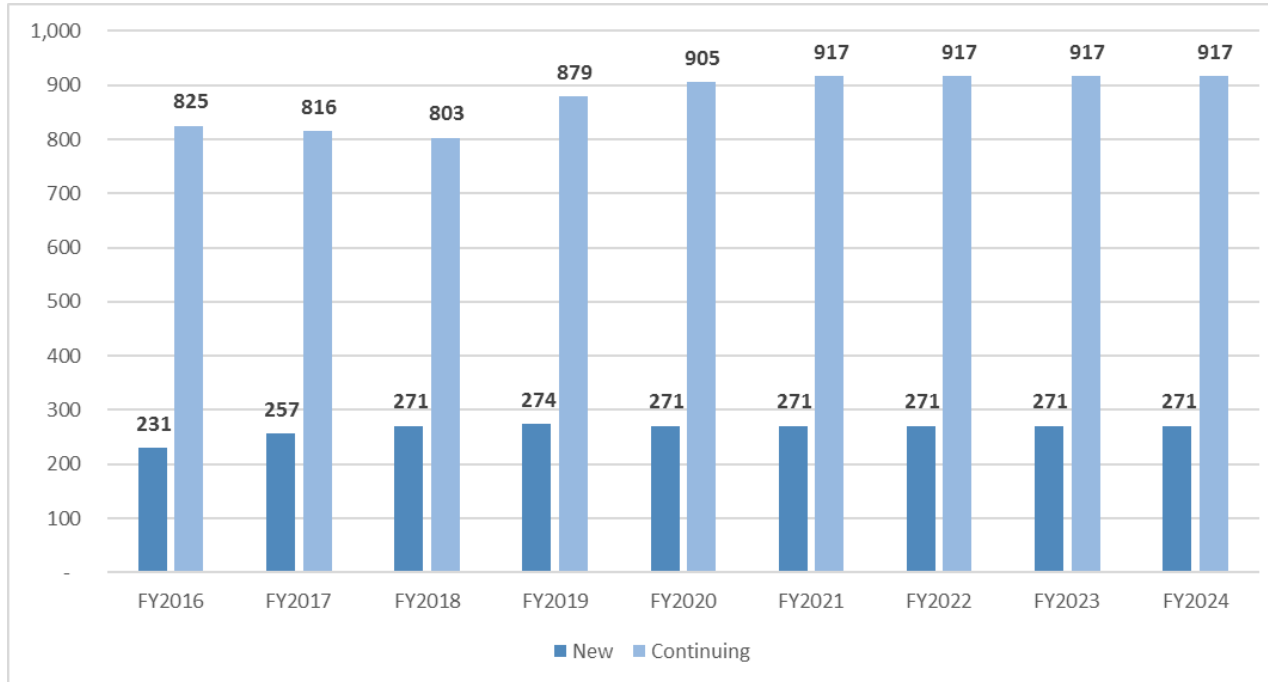
Medical: Enrollment by Residency



<i>by Residency</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
In State	788	773	768	762	788	767	765	765	765	765
<i>In State Growth</i>		-1.9%	-0.6%	-0.8%	2.6%	-2.7%	-0.3%	0.0%	0.0%	0.0%
Out of State	268	300	306	349	364	409	423	423	423	423
<i>Out of State Growth</i>		11.9%	2.0%	14.1%	19.1%	12.3%	3.4%	0.0%	0.0%	0.0%
Total	1,056	1,073	1,074	1,111	1,153	1,176	1,188	1,188	1,188	1,188
<i>Total Growth</i>		1.6%	0.1%	3.4%	7.3%	2.0%	1.0%	0.0%	0.0%	0.0%

Source: Actuals from student profile.

Medical: Enrollment by New v Continuing



<i>by New v Continuing</i> Students (FTEs)	Actual FY2016	Actual FY2017	Actual FY2018	Budget FY2019 (B)	Actual FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
New	231	257	271	271	274	271	271	271	271	271
<i>New Growth</i>		11.3%	5.4%	0.0%	1.1%	-1.1%	0.0%	0.0%	0.0%	0.0%
Continuing	825	816	803	840	879	905	917	917	917	917
<i>Continuing Growth</i>		-1.1%	-1.6%	4.6%	9.5%	3.0%	1.3%	0.0%	0.0%	0.0%
Total	1,056	1,073	1,074	1,111	1,153	1,176	1,188	1,188	1,188	1,188
<i>Total Growth</i>		1.6%	0.1%	3.4%	7.4%	2.0%	1.0%	0.0%	0.0%	0.0%

Source: Actuals from student profile.

Medical: Staffing

Medical School									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)	FY19 (P)	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	174	242	242	242	247	256	265	271	274
Staff	687	890	890	890	908	939	969	988	1,010
Total Restricted	861	1,132	1,132	1,132	1,155	1,195	1,234	1,259	1,284
<i>FTE Change (#)</i>		270	0	0	23	40	39	25	25
Unrestricted General University Ops									
Faculty	218	215	215	215	215	215	215	215	215
Staff	1,020	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017
Total General University Ops	1,238	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232
<i>FTE Change (#)</i>		(6)	0	0	-	-	-	-	-
Unrestricted Aux./Independent Business									
Faculty	18	13	13	13	13	13	13	13	13
Staff	1,327	1,278	1,278	1,278	1,278	1,278	1,278	1,278	1,278
Total Aux./Independent Business	1,345	1,291	1,291	1,291	1,291	1,291	1,291	1,291	1,291
<i>FTE Change (#)</i>		(54)	-	-	-	-	-	-	-
Total Faculty & Staff	3,444	3,655	3,655	3,655	3,678	3,718	3,757	3,782	3,807
		6%	0%	0%	1%	1%	1%	1%	1%

Medical: Staffing Ratios

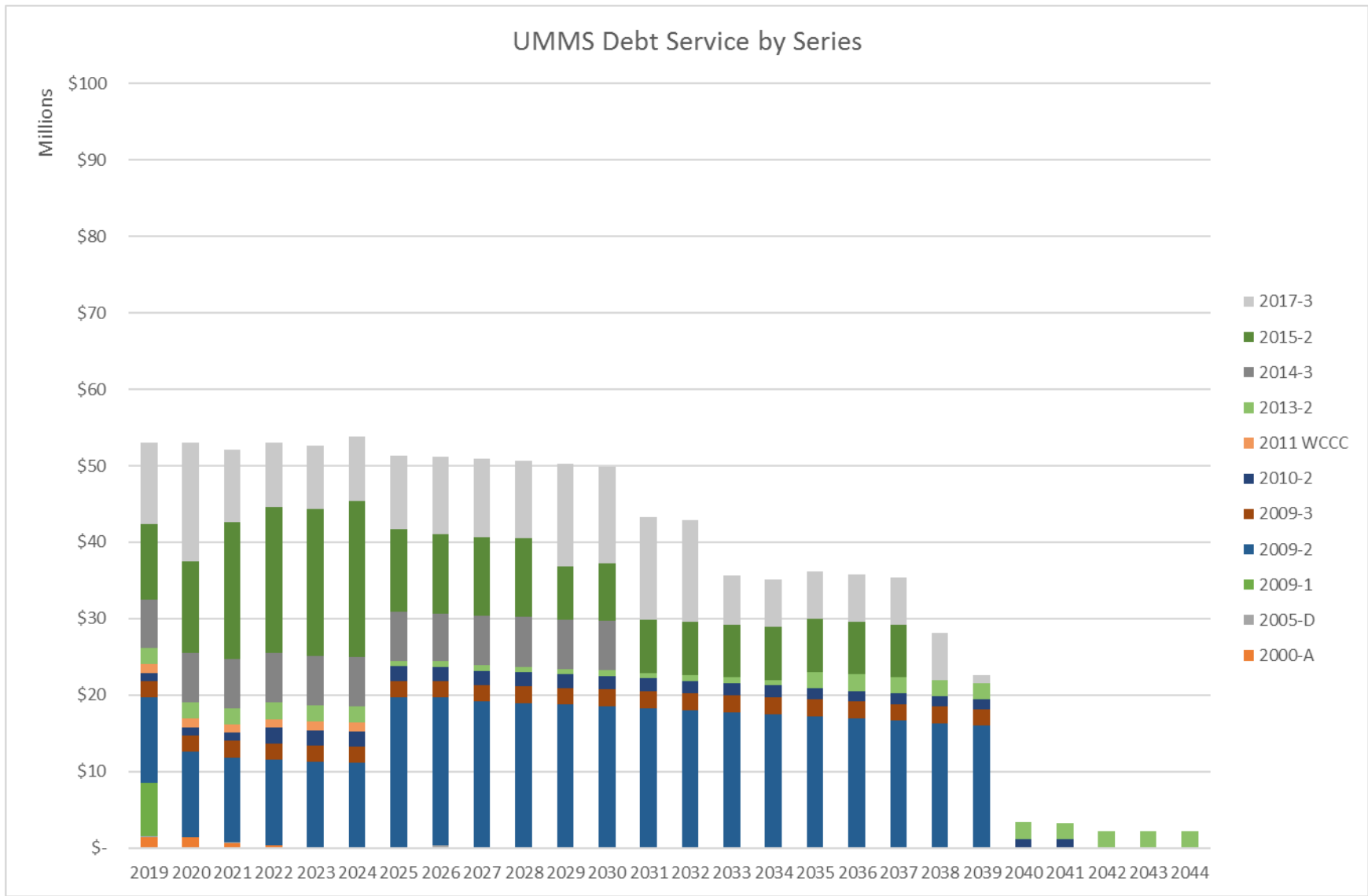
<i>Student - Faculty</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Student (FTE)	1,073	1,074	1,153	1,176	1,188	1,188	1,188	1,188
Faculty (FTE)	410	470	470	475	484	493	499	502
Student-Faculty Ratio	2.6	2.3	2.5	2.5	2.5	2.4	2.4	2.4

<i>Staff - Faculty (All)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	3,034	3,185	3,185	3,203	3,234	3,264	3,283	3,305
Faculty (FTE)	410	470	470	475	484	493	499	502
Staff-Faculty Ratio	7.4	6.8	6.8	6.7	6.7	6.6	6.6	6.6

<i>Staff - Faculty (E&G)</i>	Actual FY2017	Actual FY2018	Projection FY2019	Forecast FY2020	Forecast FY2021	Forecast FY2022	Forecast FY2023	Forecast FY2024
Staff (FTE)	1,020	1,017	1,017	1,017	1,017	1,017	1,017	1,017
Faculty (FTE)	218	215	215	215	215	215	215	215
Staff-Faculty Ratio (E&G)	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

Medical: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	-3.6%	-4.2%	-1.1%	3.2%	2.2%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>(33,230)</i>	<i>(32,614)</i>	<i>(10,599)</i>	30,671	21,155	17,902	17,902	18,726	19,503	20,088	20,943	21,447
Operating Cash Flow Margin (%)	7.6%	8.4%	8.7%	12.8%	11.5%	13.2%	13.4%	13.1%	13.0%	12.9%	12.7%	12.5%
<i>Operating Cash Flow Margin (\$)</i>	70,088	65,287	85,444	124,814	110,201	117,508	119,381	122,901	126,826	130,011	133,302	134,973
Debt Service Burden (%)	5.6%	6.2%	5.2%	6.0%	5.1%	6.1%	6.1%	5.9%	5.6%	5.4%	5.2%	5.0%
Annual Debt Service Coverage (x)	1.3	1.3	1.7	2.2	2.3	2.2	2.3	2.3	2.4	2.5	2.5	2.6
Spendable Cash & Investments to Operating Expenses (x)	0.26	0.33	0.23	0.30	0.43	0.35	0.47	0.47	0.47	0.47	0.46	0.45
Enrollment	1,104	1,071	1,056	1,073	1,074	1,111	1,153	1,176	1,188	1,188	1,188	1,188
<i>Enrollment (% Change)</i>		-3.0%	-1.4%	1.6%	0.1%		7.3%	2.0%	1.0%	0.0%	0.0%	0.0%



President's Office

President's Office: Revenue & Expenses

(\$ in Thousands)

CENTRAL

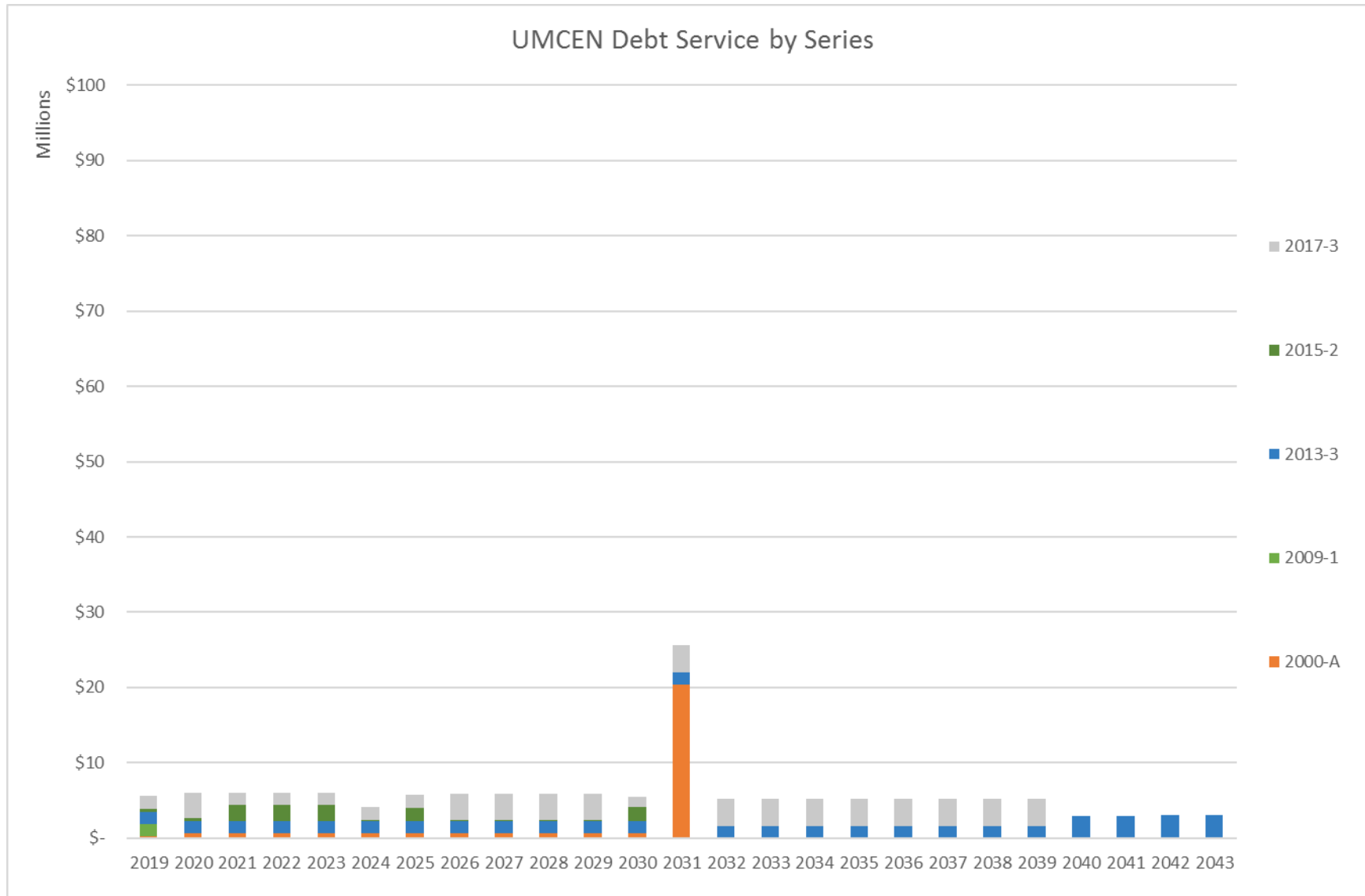
Revenues	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Gross Tuition & Fees	6,330	4,701	5,204	6,461	6,144	6,684	6,804	7,062	7,062	7,062	7,062	7,062
Tuition Discounts	-	-	-	-	-	-	-	-	-	-	-	-
Net Tuition & Fees	6,330	4,701	5,204	6,461	6,144	6,684	6,804	7,062	7,062	7,062	7,062	7,062
Grants	12,080	11,358	13,848	18,644	20,651	17,325	18,020	16,523	16,523	16,523	16,523	16,523
Sales & Service, Educational	2,067	2,129	2,253	2,192	2,154	129	1,693	1,859	1,859	1,859	1,859	1,859
Auxiliary Enterprises	-	-	-	-	-	-	-	-	-	-	-	-
Other Operating	72,705	76,489	78,416	80,649	83,159	90,794	84,983	86,747	88,482	90,251	92,057	93,898
State appropriations (including fringe)	-	-	890	704	160	138	650	-	-	-	-	-
Other NonOperating (excl. interest)	8,575	5,166	7,010	9,009	6,951	8,211	8,558	8,558	8,558	8,558	8,558	8,558
Total Revenues	101,757	99,843	107,621	117,659	119,219	123,281	120,708	120,749	122,484	124,253	126,059	127,900
% Growth		-1.9%	7.8%	9.3%	1.3%	3.4%	-2.1%	-2.1%	1.4%	1.4%	1.5%	1.5%
Expenses	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Salaries & Fringe	50,057	52,240	56,575	60,838	60,023	61,399	64,073	64,834	66,919	69,062	71,015	73,022
Non-personnel	30,750	36,812	35,026	34,936	40,025	51,371	47,828	48,168	47,546	46,892	46,712	46,517
Scholarships and fellowships	6	6	6	25	0	-	-	-	-	-	-	-
Depreciation	5,875	6,534	9,240	9,439	3,719	3,773	2,814	2,814	2,814	2,814	2,814	2,814
Interest	103	1,747	3,897	3,700	3,009	5,107	3,009	3,009	3,009	3,009	3,009	3,009
Total Expenses	86,791	97,339	104,744	108,938	106,776	121,650	117,724	118,825	120,288	121,777	123,550	125,362
% Growth		12.2%	7.6%	4.0%	-2.0%	13.9%	-3.2%	-2.3%	1.2%	1.2%	1.5%	1.5%
Operating Margin	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Surplus / (Deficit)	14,934	(1,415)	702	7,470	12,443	1,631	2,984	1,932	2,204	2,484	2,516	2,545
UMass OM Calc	14.7%	-1.5%	0.7%	6.4%	10.4%	1.3%	2.5%	1.6%	1.8%	2.0%	2.0%	2.0%

President's Office: Staffing

Central									
<i>(Employee FTEs)</i>	FY17	FY18	FY19 (B)*	FY19 (P)*	FY20	FY21	FY22	FY23	FY24
Restricted									
Faculty	-	-	-	-	-	-	-	-	-
Staff	89	87	91	107	103	103	103	103	103
Total Restricted	89	87	91	107	103	103	103	103	103
<i>FTE Change (#)</i>		(2)	4	20	(4)	-	-	-	-
Unrestricted General University Ops									
Faculty	-	-	-	-	-	-	-	-	-
Staff	295	305	324	324	330	332	334	336	338
Total General University Ops	295	305	324	324	330	332	334	336	338
<i>FTE Change (#)</i>		10	19	19	6	2	2	2	2
Unrestricted Aux./Independent Business									
Faculty	-	-	-	-	-	-	-	-	-
Staff	-	-	-	-	-	-	-	-	-
Total Aux./Independent Business	-	-	-	-	-	-	-	-	-
<i>FTE Change (#)</i>		-	-	-	-	-	-	-	-
Total Faculty & Staff	384	392	415	431	433	435	437	439	441
		2%	6%	10%	0%	0%	0%	0%	0%

President's Office: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	14.7%	-1.5%	0.7%	6.4%	10.4%	1.3%	2.5%	1.6%	1.8%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>14,934</i>	<i>(1,415)</i>	<i>702</i>	<i>7,470</i>	<i>12,443</i>	<i>1,631</i>	<i>2,984</i>	<i>1,932</i>	<i>2,204</i>	<i>2,484</i>	<i>2,516</i>	<i>2,545</i>
Operating Cash Flow Margin (%)	19.6%	13.6%	16.4%	18.2%	17.5%	8.9%	5.9%	7.4%	7.8%	8.0%	8.1%	8.1%
<i>Operating Cash Flow Margin (\$)</i>	<i>19,698</i>	<i>14,034</i>	<i>17,916</i>	<i>21,256</i>	<i>21,177</i>	<i>10,993</i>	<i>7,058</i>	<i>9,062</i>	<i>9,735</i>	<i>10,151</i>	<i>10,329</i>	<i>10,507</i>
Debt Service to Operating Expense (%)	0.1%	3.1%	3.7%	3.4%	2.8%	4.1%	4.2%	4.2%	4.3%	4.3%	4.3%	2.8%
Annual Debt Service Coverage (x)	191.2	4.7	4.6	5.7	7.0	2.1	1.8	1.5	1.6	1.6	1.6	2.4
Spendable Cash & Investments to Operating Expenses (x)	2.2	1.8	1.4	1.7	1.9	1.6	1.8	1.8	1.8	1.9	1.8	1.8



University

University: Revenue & Expenses

(\$ in Thousands)

	UNIVERSITY											
	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Revenues												
Gross Tuition & Fees	939,019	987,384	1,070,841	1,136,540	1,185,826	1,237,733	1,222,461	1,276,051	1,326,128	1,381,801	1,442,280	1,502,262
Tuition Discounts	(198,903)	(222,164)	(244,025)	(288,708)	(311,000)	(328,164)	(326,097)	(343,204)	(355,880)	(367,815)	(379,992)	(392,352)
Discount Rate	21.2%	22.5%	22.8%	25.4%	26.2%	26.5%	26.7%	26.9%	26.8%	26.6%	26.3%	26.1%
Net Tuition & Fees	740,116	765,220	826,816	847,832	874,825	909,569	896,365	932,847	970,248	1,013,986	1,062,288	1,109,910
Grants	511,694	510,741	528,352	560,081	560,990	560,862	555,975	577,726	597,563	617,898	638,049	655,248
Sales & Service, Educational	21,792	25,601	27,500	28,910	30,591	27,230	28,582	33,724	34,472	35,226	35,966	36,866
Auxiliary Enterprises	349,485	362,193	383,281	400,822	416,733	434,685	439,686	457,191	467,191	483,461	499,859	515,549
Other Operating	250,665	136,954	307,286	233,717	311,119	234,955	231,786	220,762	223,882	225,667	228,393	234,619
State appropriations (including fringe)	570,618	621,200	669,748	720,817	751,894	760,518	776,386	803,220	831,511	860,340	889,880	920,019
Other NonOperating (excl. interest)	214,767	147,801	162,741	195,089	197,142	186,568	188,710	196,117	200,798	205,746	212,497	219,373
Independent Business Lines	335,527	312,077	330,259	371,618	274,555	294,013	294,013	325,368	342,067	359,119	377,260	388,318
Total Revenues	2,994,664	2,881,786	3,235,982	3,358,886	3,417,849	3,408,400	3,411,503	3,546,955	3,667,733	3,801,444	3,944,191	4,079,902
% Growth		-3.8%	12.3%	3.8%	1.8%	-0.3%	-0.2%	4.1%	3.4%	3.6%	3.8%	3.4%
Expenses												
Salaries & Fringe	1,579,542	1,659,054	1,788,018	1,847,346	1,901,896	1,962,973	1,966,641	2,046,017	2,113,625	2,186,316	2,259,007	2,342,459
Non-personnel	975,060	852,900	1,067,226	1,018,600	1,088,019	942,706	938,461	977,307	1,009,677	1,040,100	1,081,292	1,116,573
Scholarships and fellowships	51,177	49,300	44,645	47,706	50,402	54,639	52,046	54,555	56,564	58,511	60,522	62,585
Depreciation	204,121	221,043	240,864	249,669	261,417	278,941	278,463	290,086	299,493	310,018	317,803	323,496
Interest	89,496	100,332	105,276	110,069	115,851	124,659	127,333	130,336	139,267	136,313	131,532	137,565
Total Expenses	2,899,396	2,882,686	3,211,563	3,237,351	3,336,260	3,363,919	3,362,944	3,498,301	3,618,627	3,731,259	3,850,155	3,982,678
% Growth		-0.6%	11.4%	0.8%	3.1%	0.8%	0.8%	4.0%	3.4%	3.1%	3.2%	3.4%
Operating Margin												
Surplus / (Deficit)	35,959	2,485	41,017	88,985	79,928	37,328	41,434	39,620	39,739	58,527	80,574	83,352
UMass OM Calc	1.2%	0.1%	1.3%	2.7%	2.3%	1.1%	1.2%	1.1%	1.1%	1.5%	2.0%	2.0%

University: Key Ratios

Key Ratios	Actual					Budget	Projection	Forecast				
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Operating Margin (%)	1.2%	0.1%	1.3%	2.7%	2.3%	1.1%	1.2%	1.1%	1.1%	1.5%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>35,959</i>	<i>2,485</i>	<i>41,017</i>	<i>88,985</i>	<i>79,928</i>	<i>37,328</i>	<i>41,434</i>	<i>39,620</i>	<i>39,739</i>	<i>58,527</i>	<i>80,574</i>	<i>83,352</i>
Operating Cash Flow Margin (%)	11.5%	11.8%	12.0%	13.7%	13.3%	13.1%	15.2%	15.0%	15.1%	15.4%	15.6%	15.5%
<i>Operating Cash Flow Margin (\$)</i>	<i>332,030</i>	<i>336,418</i>	<i>385,596</i>	<i>447,796</i>	<i>444,352</i>	<i>438,146</i>	<i>518,898</i>	<i>534,471</i>	<i>556,340</i>	<i>587,320</i>	<i>616,690</i>	<i>634,544</i>
Debt Service Burden (%)	6.0%	6.6%	6.2%	6.6%	6.5%	6.8%	6.9%	6.9%	7.1%	6.6%	6.4%	6.5%
Annual Debt Service Coverage (x)	1.9	1.8	1.9	2.1	2.1	1.9	2.2	2.2	2.2	2.4	2.5	2.4
Spendable Cash & Investments to Operating Expenses (x)	0.41	0.43	0.35	0.40	0.44	0.38	0.43	0.44	0.44	0.45	0.47	0.48
Enrollment	61,331	62,302	63,332	63,978	64,531	65,760	65,310	66,220	66,957	67,770	68,660	69,477
<i>Enrollment (% Change)</i>		<i>1.6%</i>	<i>1.7%</i>	<i>1.0%</i>	<i>0.9%</i>		<i>1.2%</i>	<i>1.4%</i>	<i>1.1%</i>	<i>1.2%</i>	<i>1.3%</i>	<i>1.2%</i>