



WPI

WORCESTER POLYTECHNIC INSTITUTE

REPORT OF SPONSORED PROGRAM ACTIVITY

for the period

July 1, 2016 to June 30, 2017

Prepared by the

Office of Sponsored Programs

(For WPI Use Only)

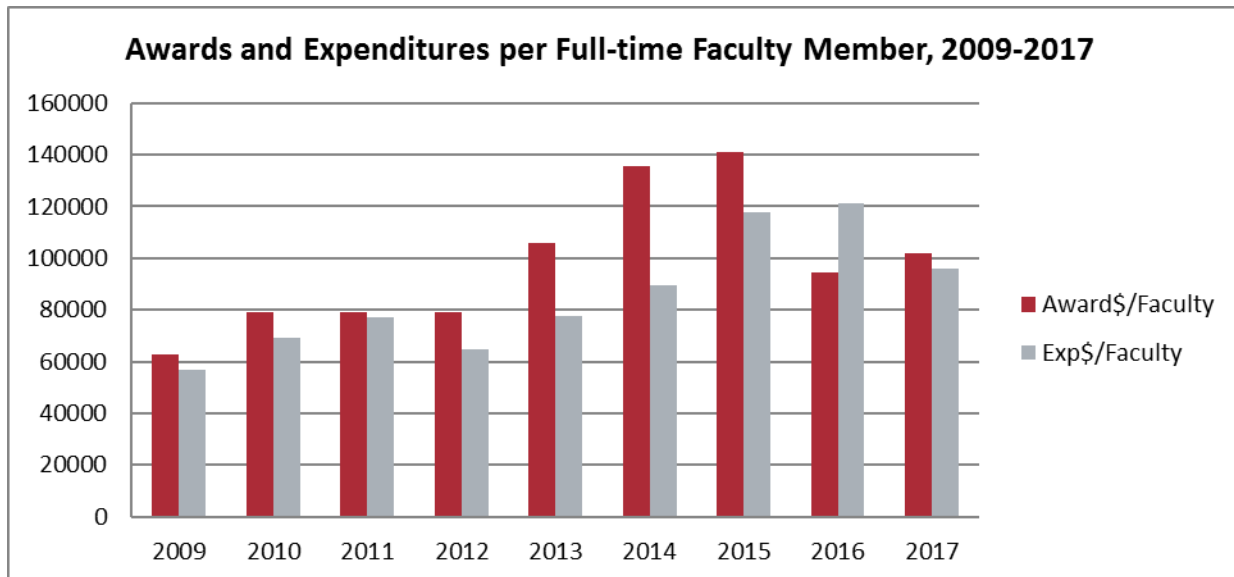
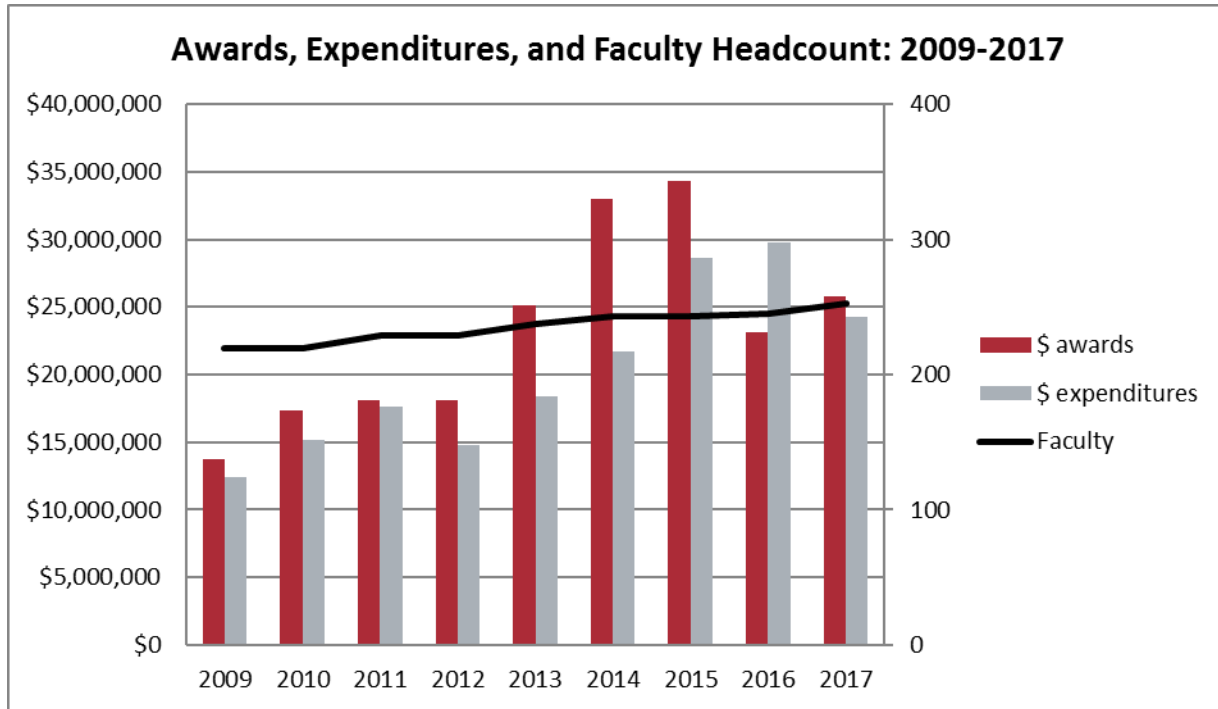
Introduction

This report, published annually by the Office of Sponsored programs, aims to provide a summary of key data related to WPI's extramural funding activities, including proposals submitted, awards received, and funds expended.

As with prior years, this report includes only those proposals and awards administered by OSP. Proposals and awards that are exclusively the purview of the University Institutional Advancement Office, the Projects Program, or other University offices, are not included here. Every effort has been made to ensure the accuracy of data presented, but should any errors be noted, please let us know so that we may make corrections to the report.

We welcome your feedback on this report. Comments and suggestions can be submitted via e-mail to Gabe Johnson, Associate Director, Post-Award & Compliance (gjohnson@wpi.edu).

1. Selected Historical Data



2. Summary of Sponsored Programs Activity

2.1: Awards, Proposals and Expenditures by Dean/Department

Worcester Polytechnic Institute										
Comparative Summary of Sponsored Program Activity by Department										
Fiscal Years 2017 and 2016										
Department	Award Actions Received				Proposals Submitted				Expenditures	
	FY 2017		FY 2016		FY 2017		FY 2016		FY 2017	FY 2016
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	Amount	Amount
Arts & Sciences										
Biology & Biotechnology	26	\$ 1,280,219	30	\$ 1,213,770	27	\$ 11,117,123	25	\$ 16,664,582	\$ 1,247,293	\$ 721,690
Chemistry & Biochemistry	8	\$ 1,604,628	7	\$ 1,573,880	23	\$ 14,861,758	23	\$ 14,031,454	\$ 1,624,868	\$ 1,103,730
Computer Science	20	\$ 3,729,950	24	\$ 3,896,366	65	\$ 63,769,881	63	\$ 90,931,859	\$ 2,993,952	\$ 3,652,269
Humanities & Arts	3	\$ 388,935	1	\$ 199,988	6	\$ 1,466,355	6	\$ 2,801,271	\$ 175,450	\$ 146,727
Mathematical Sciences	11	\$ 825,620	9	\$ 1,057,195	33	\$ 10,709,063	31	\$ 7,138,020	\$ 970,620	\$ 1,039,508
Physics	2	\$ 116,492	4	\$ 610,200	19	\$ 7,343,941	15	\$ 6,972,843	\$ 586,455	\$ 644,059
Social Science & Policy Studies	5	\$ 2,085,881	4	\$ 79,740	11	\$ 5,722,442	19	\$ 9,874,384	\$ 292,521	\$ 598,631
Total	75	\$ 10,031,725	79	\$ 8,631,139	184	\$ 114,990,563	182	\$ 148,414,413	\$ 7,891,159	\$ 7,906,614
Business										
	10	\$ 365,835	19	\$ 503,715	8	\$ 5,141,302	11	\$ 2,737,718	\$ 570,531	\$ 869,469
Engineering										
Biomedical Engineering	15	\$ 2,391,854	14	\$ 3,700,807	35	\$ 15,876,987	36	\$ 20,566,371	\$ 2,181,078	\$ 2,470,921
Chemical Engineering	14	\$ 1,852,578	14	\$ 1,498,354	23	\$ 9,781,243	29	\$ 7,359,639	\$ 1,534,631	\$ 2,288,013
Civil & Environmental Engineering	5	\$ 554,322	4	\$ 113,536	22	\$ 6,143,794	22	\$ 8,108,378	\$ 464,869	\$ 449,917
Electrical & Computer Engineering	21	\$ 2,479,160	18	\$ 1,858,977	22	\$ 5,563,003	30	\$ 10,289,038	\$ 2,216,294	\$ 2,244,793
Fire Protection Engineering	8	\$ 385,352	6	\$ 1,432,039	17	\$ 5,681,041	5	\$ 627,926	\$ 1,394,916	\$ 1,843,295
Mechanical Engineering	44	\$ 6,681,923	29	\$ 4,619,070	64	\$ 39,721,256	68	\$ 23,943,163	\$ 7,103,910	\$ 10,518,486
Total	107	\$ 14,345,189	85	\$ 13,222,783	183	\$ 82,767,324	190	\$ 70,894,515	\$ 14,895,698	\$ 19,815,425
Interdisciplinary & Global Studies										
	1	\$ 43,070	1	\$ 61,214	3	\$ 228,077	1	\$ 91,000	\$ 42,580	\$ 80,344
Other										
	12	\$ 949,449	8	\$ 670,683	10	\$ 1,845,762	7	\$ 2,181,781	\$ 819,036	\$ 1,062,239
University Total	205	\$ 25,735,268	192	\$ 23,089,534	388	\$ 204,973,028	391	\$ 224,319,427	\$ 24,219,004	\$ 29,734,091

2.2: Summary of FY2017 Activity (with comparative data for FY2016)

	<u>FY2017</u>	<u>FY2016</u>	<u>%Change</u>
Number of Proposal Submissions	388	391	-0.8%
\$ Composition of Proposals Submitted			
Direct Costs	\$ 156,351,370	\$ 177,705,253	-12.0%
Indirect Costs	<u>\$ 48,571,691</u>	<u>\$ 47,559,900</u>	2.1%
Total Requested	\$ 204,923,061	\$ 241,028,388	-15.0%
Cost Sharing	<u>\$ 11,176,739</u>	<u>\$ 7,682,387</u>	45.5%
Total Project Costs Proposed	\$ 216,099,800	\$ 248,710,775	-13.1%
Number of Award Actions	205	192	6.8%
\$ Composition of Award Actions Received			
Direct Costs	\$ 19,851,789	\$ 18,519,786	7.2%
Indirect Costs	<u>\$ 5,883,479</u>	<u>\$ 4,569,928</u>	28.7%
Total Award \$ Received	\$ 25,735,268	\$ 23,089,714	11.5%
Cost Sharing	<u>\$ 1,267,395</u>	<u>\$ 4,117,207</u>	-69.2%
Total Project Costs	\$ 27,002,663	\$ 27,206,921	-0.8%

Selected Proposal Routing Form (PRF) "Special Considerations" Summary Data:

a. Proposals Involving Human Participants	72	53	35.8%
b. Proposals Involving Use of Animals	8	19	-57.9%
c. Proposals Involving Hazardous Materials	58	62	-6.5%
d. Proposals Requesting Support for Research Assistants	227	261	-13.0%
e. Proposals Requesting Support for Non-Student Personnel	40	37	8.1%
f. Proposals Including Funds for Consultants/Subcontractors	65	57	14.0%
g. Proposals with Academic Year Faculty Salary Budgeted	31	21	47.6%
h. Proposals Requesting Equipment Funds	38	47	-19.1%

3. Proposal & Award Activity for Fiscal Year 2017

3.1: Awards by Dean/Department

Figure 3.1 below provides departmental data for award actions received in fiscal year 2017. It also includes summary information regarding indirect cost rates and cost sharing on awards (unaudited - for comparison purposes only) as well as a breakdown at the bottom of the report that shows total University award information and awards for STEM departments only.

“Awards” are defined as funds which have been actually obligated and released by the sponsor. Some grants are awarded in yearly increments, subject to satisfactory progress and/or availability of funds. In such cases, only those increments actually received by WPI are counted as awards.

**Worcester Polytechnic Institute
Summary of Award Actions
July 1, 2016 to June 30, 2017**

<u>Dean</u>	<u>Department</u>	<u>Count</u>	<u>Direct Costs</u>	<u>Indirect Costs</u>	<u>Total Costs</u>	<u>Average Award Amount</u>	<u>Average IDC Rate</u>	<u>Cost Sharing</u>	<u>Average Cost Sharing</u>	<u>CS Effective Rate</u>	<u>Excess IDC over CS</u>
Arts & Sciences											
	Biology S/R	26	\$ 937,150	\$ 343,069	\$ 1,280,219	\$ 49,239	36.6	\$ 761,477	\$ 29,288	59.5	\$ (418,408)
	Chemistry S/R	8	\$ 1,186,257	\$ 418,371	\$ 1,604,628	\$ 200,579	35.3				\$ 418,371
	Computer Science S/R	20	\$ 3,034,116	\$ 695,834	\$ 3,729,950	\$ 186,498	22.9				\$ 695,834
	Humanities S/R	3	\$ 308,228	\$ 80,707	\$ 388,935	\$ 129,645	26.2	\$ 93,722	\$ 31,241	24.1	\$ (13,015)
	Math S/R	11	\$ 672,820	\$ 152,800	\$ 825,620	\$ 75,056	22.7	\$ 28,693	\$ 2,608	3.5	\$ 124,107
	Physics S/R	2	\$ 74,725	\$ 41,767	\$ 116,492	\$ 58,246	55.9				\$ 41,767
	Social Science S/R	5	\$ 1,447,874	\$ 638,007	\$ 2,085,881	\$ 417,176	44.1				\$ 638,007
	Total	75	\$ 7,661,170	\$ 2,370,555	\$ 10,031,725	\$ 133,756.33	30.7	\$ 883,892	\$ 11,785	3.1	\$ 1,486,663
Engineering											
	Biomedical S/R	15	\$ 1,670,251	\$ 721,603	\$ 2,391,854	\$ 159,457	43.2	\$ 74,679	\$ 4,979	3.1	\$ 646,924
	Chem Eng S/R	14	\$ 1,448,784	\$ 403,794	\$ 1,852,578	\$ 132,327	27.9	\$ 26,688	\$ 1,906	1.4	\$ 377,106
	Civil & Environmental Eng S/R	5	\$ 406,394	\$ 147,928	\$ 554,322	\$ 110,864	36.4	\$ 38,315	\$ 7,663	6.9	\$ 109,613
	ECE S/R	21	\$ 1,830,434	\$ 648,726	\$ 2,479,160	\$ 118,055	35.4	\$ 195,859	\$ 9,327	7.9	\$ 452,867
	Fire Protection S/R	8	\$ 276,272	\$ 109,080	\$ 385,352	\$ 48,169	39.5	\$ 47,962	\$ 5,995	12.4	\$ 61,118
	ME S/R	44	\$ 5,432,029	\$ 1,249,894	\$ 6,681,923	\$ 151,862	23				\$ 1,249,894
	Total	107	\$ 11,064,164	\$ 3,281,025	\$ 14,345,189	\$ 134,067	21.7	\$ 383,503	\$ 3,584	25.5	\$ 2,897,522
IGSD	IGSD - S/R	1	\$ 27,547	\$ 15,523	\$ 43,070	\$ 43,070	56.4				\$ 15,523
Other		12	\$ 795,288	\$ 154,161	\$ 949,449	\$ 79,120.75	19.9				\$ 154,161
School of Business	School of Business S/R	10	\$ 303,620	\$ 62,215	\$ 365,835	\$ 36,584	20.5				\$ 62,215
University Total		205	\$ 19,851,789	\$ 5,883,479	\$ 25,735,268	\$ 125,538	24.7	\$ 1,267,395	\$ 6,182	17.8	\$ 4,616,084
STEM Departments		179	\$ 18,417,106	\$ 5,570,873	\$ 23,987,979	\$ 134,011	25.2	\$ 1,173,673	\$ 6,557	16.4	\$ 4,397,200

3.2: Awards by Sponsor

**Worcester Polytechnic Institute
Comparative Summary of Awards by Sponsor
FY 2017 and FY 2016**

Sponsor	FY2017				FY2016			
	No.	%	\$ Amount	%	No.	%	\$ Amount	%
Federal								
Dept of Defense	16	8%	\$ 3,234,342	13%	27	14%	\$ 3,395,069	15%
Dept of Education	3	1%	\$ 848,083	3%	1	1%	\$ 295,278	1%
Dept of Energy	2	1%	\$ 176,436	1%	8	4%	\$ 1,438,368	6%
Dept of Interior	1	0%	\$ 47,058	0%	2	1%	\$ 1,083,993	5%
DHHS	30	15%	\$ 5,241,550	20%	22	11%	\$ 3,876,500	17%
NASA	6	3%	\$ 236,664	1%	3	2%	\$ 121,226	1%
NSF	74	36%	\$ 12,221,512	47%	49	26%	\$ 6,844,663	30%
USDA	1	0%	\$ 151,347	1%	3	2%	\$ 240,779	1%
Other Federal	4	2%	\$ 293,955	1%	8	4%	\$ 683,071	3%
<i>Subtotal - Federal</i>	<i>137</i>	<i>67%</i>	<i>\$ 22,450,947</i>	<i>87%</i>	<i>123</i>	<i>64%</i>	<i>\$ 17,978,947</i>	<i>78%</i>
Commonwealth of Massachusetts Corporation	13	6%	\$ 910,938	4%	16	8%	\$ 432,398	2%
Foreign Organization	34	17%	\$ 1,133,861	4%	29	15%	\$ 1,783,193	8%
Foundation	3	1%	\$ 364,873	1%	1	1%	\$ 34,500	0%
Private Organization (univ, assoc)	6	3%	\$ 477,006	2%	9	5%	\$ 2,173,833	9%
Public Organization (local govt)	9	4%	\$ 218,318	1%	11	6%	\$ 485,670	2%
<i>Subtotal - Non-Federal</i>	<i>68</i>	<i>33%</i>	<i>\$ 3,284,321</i>	<i>13%</i>	<i>69</i>	<i>36%</i>	<i>\$ 5,110,767</i>	<i>22%</i>
Grand Total	205		\$ 25,735,268		192		\$ 23,089,714	

Figure 3.3: FY2017 Award \$ by Sponsor Type

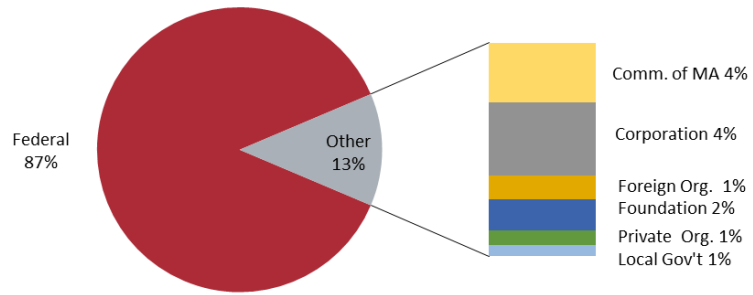
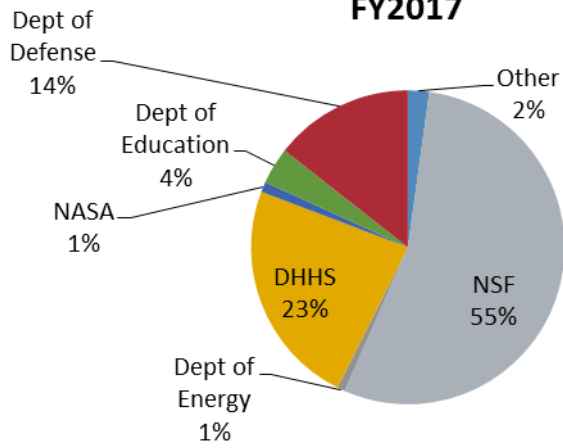


Figure 3.4: Federal Award \$ by Sponsor, FY2017



3.5 Proposals by Dean/Department

Figure 3.5 below provides a departmental summary of proposal submission statistics for fiscal year 2017. This summary includes information about requested direct and indirect costs, average proposal amounts and indirect cost rates requested, and cost sharing on proposal submissions. There are totals shown at the bottom of the schedule for both the entire University and for STEM departments only.

**Worcester Polytechnic Institute
Summary of Proposals
July 1, 2016 to June 30, 2017**

<u>Dean</u>	<u>Department</u>	<u>Count</u>	<u>Direct Costs</u>	<u>Indirect Costs</u>	<u>Total Costs</u>	<u>Average Proposal Amount</u>	<u>Average IDC Rate</u>	<u>Cost Sharing</u>	<u>Average Cost Sharing</u>	<u>CS Effective Rate</u>	<u>Excess IDC over CS</u>
Arts & Sciences											
	Biology S/R	27	\$ 7,989,423	\$ 3,027,700	\$ 11,117,123	\$ 411,745	37.9	\$ 758,171	\$ 758,171	6.8	\$ 2,269,529
	Chemistry S/R	23	\$ 10,407,530	\$ 4,454,228	\$ 14,861,758	\$ 646,163	42.8	\$ 38,180	\$ 38,180	0.3	\$ 4,416,048
	Computer Science S/R	65	\$ 49,242,818	\$ 14,527,061	\$ 63,769,881	\$ 981,075	29.5	\$ 1,614,434	\$ 807,217	2.5	\$ 12,912,627
	Humanities S/R	6	\$ 1,037,231	\$ 429,124	\$ 1,466,355	\$ 244,393	41.4	\$ 208,119	\$ 208,119	14.2	\$ 221,005
	Math S/R	33	\$ 8,127,365	\$ 2,581,699	\$ 10,709,063	\$ 324,517	31.8	\$ 36,634	\$ 18,317	0.3	\$ 2,545,065
	Physics S/R	19	\$ 5,288,438	\$ 2,055,503	\$ 7,343,941	\$ 386,523	38.9	\$ 162,874	\$ 81,437	2.2	\$ 1,892,629
	Social Science S/R	11	\$ 4,576,853	\$ 1,145,589	\$ 5,722,442	\$ 520,222	25	\$ -	\$ -		\$ 1,145,589
	Total	184	\$ 86,769,658	\$ 28,220,904	\$ 114,990,563	\$ 624,949	32.5	\$ 2,818,412	\$ 313,157	2.5	\$ 25,402,492
Engineering											
	Biomedical S/R	35	\$ 11,654,899	\$ 4,178,088	\$ 15,876,987	\$ 453,628	35.8	\$ 74,679	\$ 74,679	0.5	\$ 4,103,409
	Chem Eng S/R	23	\$ 7,555,487	\$ 2,397,358	\$ 9,781,243	\$ 425,271	31.7	\$ 501,683	\$ 250,842	5.1	\$ 1,895,675
	Civil & Environmental Eng S/R	22	\$ 4,523,653	\$ 1,620,147	\$ 6,143,794	\$ 279,263	35.8	\$ 217,813	\$ 108,907	3.5	\$ 1,402,334
	ECE S/R	22	\$ 3,900,228	\$ 1,612,774	\$ 5,563,003	\$ 252,864	41.4	\$ 10,651	\$ 10,651	0.2	\$ 1,602,123
	Fire Protection S/R	17	\$ 3,265,334	\$ 1,773,254	\$ 5,681,041	\$ 334,179	54.3	\$ -	\$ -		\$ 1,773,254
	ME S/R	64	\$ 32,546,926	\$ 7,174,359	\$ 39,721,289	\$ 620,645	22	\$ 7,169,462	\$ 896,183	18	\$ 4,897
	Total	183	\$ 63,899,733	\$ 18,817,625	\$ 82,717,357	\$ 452,007	29.4	\$ 7,974,288	\$ 569,592	9.6	\$ 10,843,337
	IGSD	3	\$ 151,822	\$ 76,255	\$ 228,077	\$ 76,026	50.2	\$ -	\$ -		\$ 76,255
	Other	10	\$ 1,733,296	\$ 112,466	\$ 1,845,762	\$ 184,576	6.5	\$ 384,039	\$ 384,039	20.8	\$ (271,573)
	School of Business	8	\$ 3,796,861	\$ 1,344,441	\$ 5,141,302	\$ 642,663	35.4093	\$ -	\$ -		\$ 1,344,441
<hr/>											
	University Total	388	\$ 156,351,370	\$ 48,571,691	\$ 204,923,061	\$ 528,152	26.8	\$11,176,739	\$ 28,806	3.4	\$ 37,394,952
	STEM Departments	364	\$ 149,783,982	\$ 46,685,660	\$ 196,469,642	\$ 539,752	26.6	\$10,584,581	\$ 29,079	3.2	\$ 36,101,079

3.6 Proposals by Sponsor

**Worcester Polytechnic Institute
Comparative Summary of Proposals by Sponsor
FY2017 and FY2016**

Sponsor	FY2017				FY2016			
	No.	%	No.	%	No.	%	No.	%
Federal								
Dept of Commerce	4	1%	\$ 855,947	0%	2	1%	\$ 1,001,625	0%
Dept of Defense	22	6%	\$ 11,846,610	6%	29	7%	\$ 7,077,776	3%
Dept of Education	12	3%	\$ 27,865,553	14%	3	1%	\$ 13,312,991	6%
Dept of Energy	8	2%	\$ 6,269,830	3%	13	3%	\$ 6,336,149	3%
Dept of Homeland Security	5	1%	\$ 2,811,802	1%	1	0%	\$ 165,639	0%
Dept of Interior	7	2%	\$ 3,394,180	2%	0	0%	\$ -	0%
DHHS	57	15%	\$ 43,625,627	21%	57	15%	\$ 92,042,651	41%
Dept of Transportation	3	1%	\$ 332,530	0%	2	1%	\$ 2,561,500	1%
NASA	6	2%	\$ 1,716,557	1%	4	1%	\$ 852,662	0%
NEH	1	0%	\$ 99,997	0%	1	0%	\$ 38,834	0%
NSF	165	43%	\$ 83,034,822	41%	185	47%	\$ 87,936,666	39%
USDA	2	1%	\$ 511,347	0%	1	0%	\$ 147,964	0%
VA	0	0%	\$ -	0%	2	1%	\$ 160,161	0%
Other Federal	5	1%	\$ 1,440,958	1%	10	3%	\$ 1,316,085	1%
<i>Subtotal - Federal</i>	<i>297</i>	<i>77%</i>	<i>\$ 183,805,760</i>	<i>90%</i>	<i>310</i>	<i>79%</i>	<i>\$ 212,950,703</i>	<i>95%</i>
						0%		0%
Commonwealth of Massachusetts	7	2%	\$ 5,194,415	3%	6	2%	\$ 436,720	0%
Corporation	29	7%	\$ 2,091,128	1%	21	5%	\$ 2,066,240	1%
Foreign Organization	5	1%	\$ 478,854	0%	6	2%	\$ 1,111,211	0%
Foundation	31	8%	\$ 4,503,970	2%	27	7%	\$ 5,316,235	2%
Private Organization (univ, assoc)	15	4%	\$ 8,678,277	4%	17	4%	\$ 2,174,268	1%
Public Organization (local govt)	4	1%	\$ 170,657	0%	4	1%	\$ 264,050	0%
<i>Subtotal - Non-Federal</i>	<i>91</i>	<i>23%</i>	<i>\$ 21,117,301</i>	<i>10%</i>	<i>81</i>	<i>21%</i>	<i>\$ 11,368,724</i>	<i>5%</i>
Grand Total	388		\$ 204,923,061		391		\$ 224,319,427	

Figure 3.7: FY2017 Proposal \$ by Sponsor Type

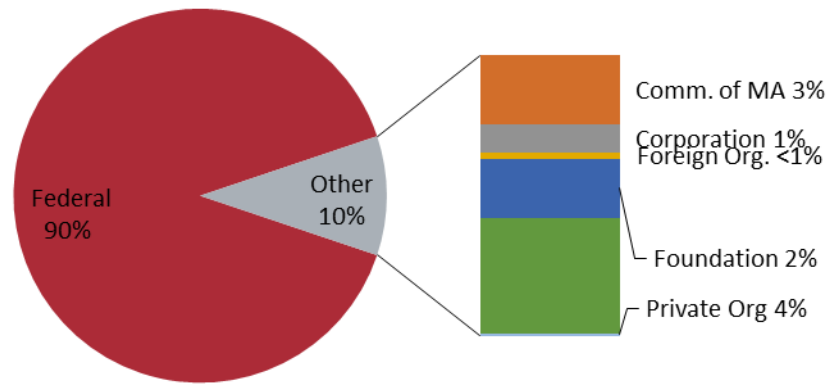
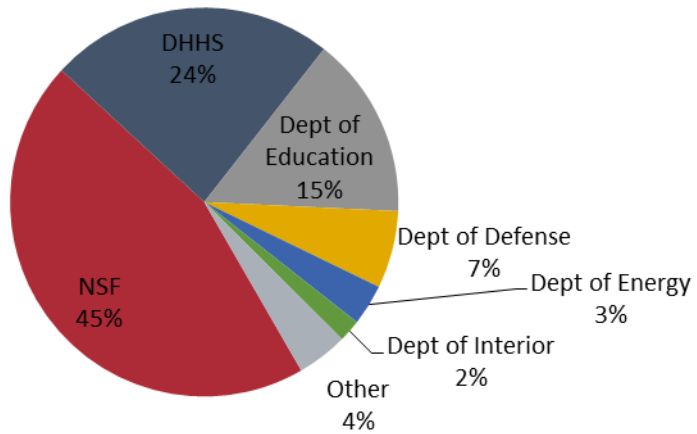


Figure 3.8: Federal Proposal \$ by Sponsor, FY2017



4. Expenditure Activity for Fiscal Year 2017

4.1: Sponsored Program Expenditures by Dean/Department

**Worcester Polytechnic Institute
Summary of Expenditures by Department
July 1, 2016 to June 30, 2017**

Department	Compensation & Benefits	Equipment, Materials & Supplies	Travel	Subawards	Indirect Costs	Other Direct Costs	Cost Sharing	Totals
Arts & Sciences								
Biology S/R	\$ 520,369	\$ 107,746	\$ 28,381	\$ -	\$ 382,544	\$ 210,348	\$ (2,093)	\$ 1,247,293
Chemistry S/R	\$ 696,448	\$ 157,391	\$ 16,339	\$ 248,053	\$ 499,984	\$ 36,399	\$ (29,745)	\$ 1,624,868
Computer Science S/R	\$ 1,480,686	\$ 35,462	\$ 43,890	\$ 144,216	\$ 707,256	\$ 539,653	\$ (53,321)	\$ 2,897,841
Humanities S/R	\$ 61,817	\$ 580	\$ 16,820	\$ -	\$ 31,294	\$ 64,940	\$ -	\$ 175,450
Math S/R	\$ 626,026	\$ 17,752	\$ 63,878	\$ -	\$ 228,497	\$ 59,885	\$ (25,419)	\$ 970,620
Physics S/R	\$ 336,893	\$ 69,953	\$ 20,142	\$ (4)	\$ 120,385	\$ 86,341	\$ (47,254)	\$ 586,455
Social Science S/R	\$ 198,390	\$ 1,892	\$ 11,976	\$ -	\$ 68,651	\$ 11,612	\$ -	\$ 292,521
<i>A&S Subtotal</i>	<i>\$ 3,920,629</i>	<i>\$ 390,775</i>	<i>\$ 201,425</i>	<i>\$ 392,265</i>	<i>\$ 2,038,609</i>	<i>\$ 1,009,178</i>	<i>\$ (157,833)</i>	<i>\$ 7,795,048</i>
School of Business	\$ 302,295	\$ 1,058	\$ 14,279	\$ 49,887	\$ 177,243	\$ 28,942	\$ (3,173)	\$ 570,531
Engineering								
Biomedical S/R	\$ 1,201,233	\$ 260,667	\$ 111,897	\$ 134,198	\$ 776,652	\$ 124,670	\$ (428,238)	\$ 2,181,078
Chem Eng S/R	\$ 853,538	\$ 116,140	\$ 14,932	\$ 11,722	\$ 264,739	\$ 456,840	\$ (183,280)	\$ 1,534,631
Civil & Environmental Eng S	\$ 208,335	\$ 14,493	\$ 31,345	\$ -	\$ 84,150	\$ 141,919	\$ (15,373)	\$ 464,869
ECE S/R	\$ 1,381,221	\$ 187,761	\$ 52,451	\$ 52,753	\$ 553,777	\$ 42,163	\$ (53,831)	\$ 2,216,294
Fire Protection S/R	\$ 706,293	\$ 158,359	\$ 17,012	\$ 101,677	\$ 414,812	\$ 60,157	\$ (63,394)	\$ 1,394,916
ME S/R	\$ 2,546,090	\$ 755,638	\$ 126,186	\$ 2,290,817	\$ 1,349,109	\$ 292,543	\$ (160,365)	\$ 7,200,019
<i>Engineering Subtotal</i>	<i>\$ 6,896,710</i>	<i>\$ 1,493,058</i>	<i>\$ 353,822</i>	<i>\$ 2,591,166</i>	<i>\$ 3,443,240</i>	<i>\$ 1,118,292</i>	<i>\$ (904,481)</i>	<i>\$ 14,991,808</i>
IGSD	\$ 19,919	\$ -	\$ 61	\$ -	\$ 15,092	\$ 7,509	\$ -	\$ 42,580
Other	\$ 286,959	\$ 10,692	\$ 18,235	\$ 53,171	\$ 159,525	\$ 303,799	\$ (13,344)	\$ 819,036
<hr/>								
University Total	\$ 11,426,511	\$ 1,895,583	\$ 587,822	\$ 3,086,490	\$ 5,833,710	\$ 2,467,720	\$ (1,078,831)	\$ 24,219,004
<i>STEM Depts</i>	<i>\$ 10,755,522</i>	<i>\$ 1,883,253</i>	<i>\$ 538,427</i>	<i>\$ 2,983,431</i>	<i>\$ 5,450,556</i>	<i>\$ 2,062,531</i>	<i>\$ (1,062,314)</i>	<i>\$ 22,611,406</i>

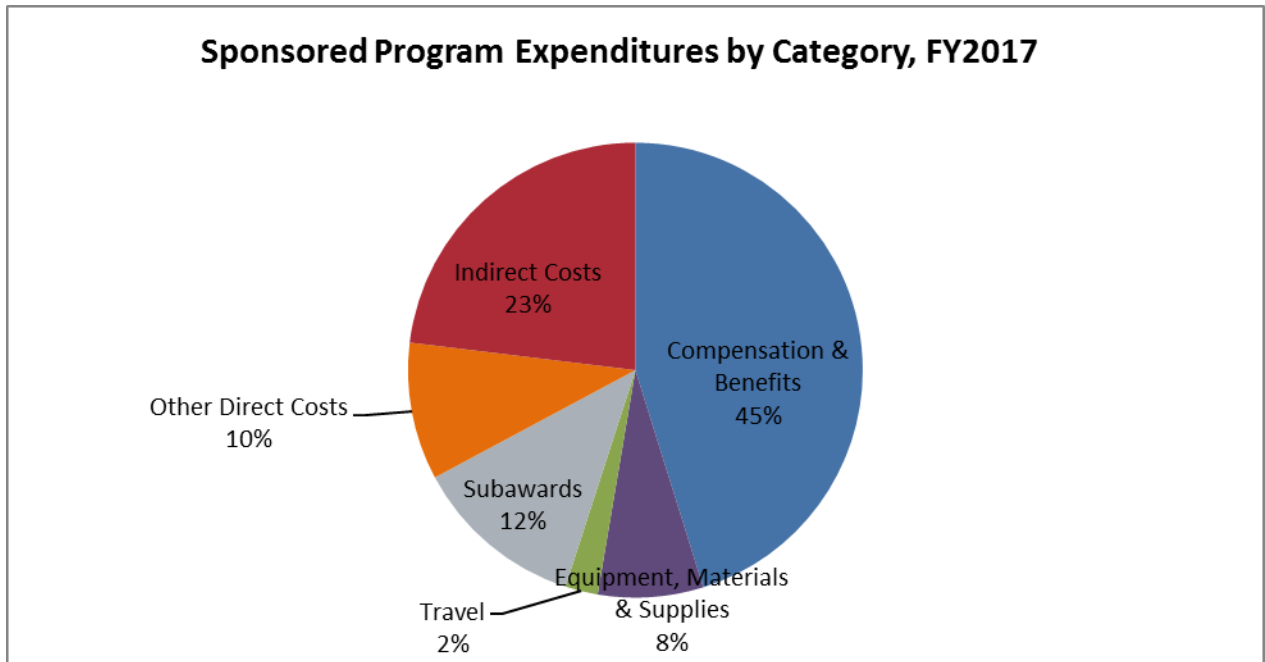
4.2 Comparison of FY2017 and FY2016

**Worcester Polytechnic Institute
Comparative Summary of Sponsored Program Expenditure Activity
FY2017 and FY2016**

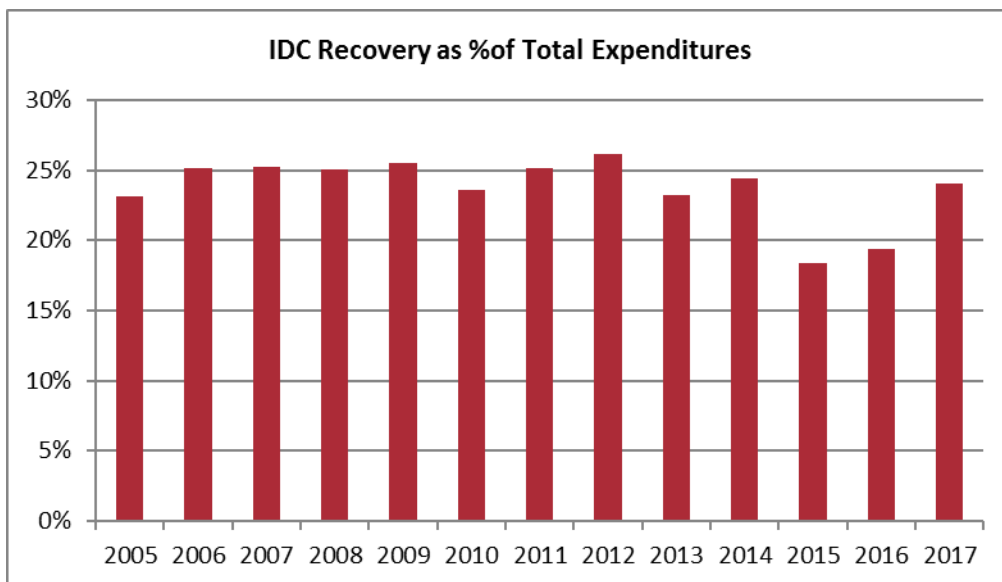
<u>Element of Cost</u>	<u>FY2017 Expenses</u>	<u>FY2016 Expenses</u>	<u>% Change</u>
Salaries & Wages	\$8,195,375	\$7,947,296	3.1%
Fringe Benefits	1,265,784	1,226,964	3.2%
Equipment	1,265,784	1,024,576	23.5%
Other Direct Expenses	<u>8,737,182</u>	<u>13,258,766</u>	-34.1%
Subtotal Direct Program Costs	\$19,464,126	\$23,457,604	-17.0%
Indirect Costs	<u>5,833,710</u>	<u>6,276,487</u>	-7.1%
Total Program Costs	\$25,297,835	\$29,734,091	-14.9%
Less: WPI Cost Sharing ¹	<u>(1,078,831)</u>	<u>(1,136,187)</u>	-5.0%
Net Externally-sponsored Expenditures	<u><u>\$24,219,004</u></u>	<u><u>\$28,597,904</u></u>	-15.3%

¹Due to the method used for recording expenditures, a breakdown of WPI cost sharing to net against direct sponsored program costs by category is not possible without further analysis.

4.2: Expenditures by Category



4.3: Indirect Cost Recovery (Historical)



5. Faculty Participation and Productivity

This section contains information relating to the faculty's level of productivity as it pertains to sponsored programs. Productivity, in this sense, is the rate at which faculty receive awards and/or participate in proposals, whether as a principal investigator or as a co-principal investigator.

5.1: Faculty Award Productivity by PI Department

Worcester Polytechnic Institute
Award Productivity by Department (Tenured & Tenure Track Faculty as PI Only)
Fiscal Year 2017

Department	# of faculty	# receiving awards	% receiving awards	# of Awards	Awards Per Faculty Member	Total \$ Awarded	\$ IDC Awarded	\$ Awarded per faculty member	\$ IDC awarded per faculty member
Arts & Sciences									
BBT	15	5	33%	11	0.73	\$ 933,236	\$ 255,667	\$ 62,216	\$ 17,044
CBC	11	4	36%	7	0.64	1,573,880	434,714	143,080	39,519
CS	25	8	32%	19	0.76	3,037,950	707,173	121,518	28,287
H&A	31	1	3%	1	0.03	199,988	35,463	6,451	1,144
MA	26	8	31%	9	0.35	1,057,195	258,000	40,661	9,923
PH	11	3	27%	4	0.36	610,200	99,431	55,473	9,039
SSPS	12	2	17%	3	0.25	78,240	2,280	6,520	190
A&S Totals	131	31	24%	54	0.41	7,490,689	1,792,728	57,181	13,685
Business	25	4	16%	8	0.32	447,337	114,118	17,893	4,565
Engineering									
BME	10	7	70%	13	1.30	3,642,805	482,020	364,281	48,202
CHE	10	4	40%	12	1.20	1,474,339	404,214	147,434	40,421
CEE	11	2	18%	4	0.36	113,536	6,545	10,321	595
ECE	19	5	26%	17	0.89	1,724,117	145,319	90,743	7,648
FPE	4	2	50%	5	1.25	1,266,400	297,439	316,600	74,360
ME	31	13	42%	29	0.94	4,619,070	908,962	149,002	29,321
Engineering Totals	85	33	39%	80	0.94	12,840,267	2,244,499	151,062	26,406
IGSD	2	0	0%	0	0.00	-	-	-	-
TOTALS	243	68	28%	142	0.58	\$ 20,778,293	\$ 4,151,345	\$ 85,507	\$ 17,084
STEM Departments	185	63	34%	133	0.72	\$ 20,130,968	\$ 4,001,764	\$ 108,816	\$ 21,631

5.2: Faculty Proposal Participation by PI Department

Worcester Polytechnic Institute
 Proposal Productivity by Department (Tenured & Tenure Track Faculty as PI Only)
 Fiscal Year 2017

Department	# of faculty	# submitting proposals	% submitting proposals	# of Proposals	Proposals Per Faculty Member	Total \$ Proposed	\$ requested per faculty member	\$ requested per submitting faculty member	Average proposal amount
Arts & Sciences									
BBT	15	9	60%	19	1.27	\$ 11,096,313	\$ 739,754	\$ 1,232,924	\$ 584,016
CBC	12	7	58%	23	1.92	14,861,758	1,238,480	2,123,108	646,163
CS	26	21	81%	64	2.46	63,670,194	2,448,854	3,031,914	994,847
H&A	29	3	10%	5	0.17	1,366,358	47,116	455,453	273,272
MA	27	15	56%	32	1.19	10,667,063	395,076	711,138	333,346
PH	12	8	67%	17	1.42	6,443,964	536,997	805,496	379,057
SSPS	13	4	31%	11	0.85	5,722,442	440,188	1,430,611	520,222
A&S Totals	134	67	50%	171	1.28	113,828,092	849,463	1,698,927	665,661
Business	25	8	32%	8	0.32	5,141,302	205,652	642,663	642,663
Engineering									
BME	10	10	100%	31	3.10	15,455,891	1,545,589	1,545,589	498,577
CHE	12	9	75%	23	1.92	9,781,243	815,104	1,086,805	425,271
CEE	11	5	45%	22	2.00	6,143,794	558,527	1,228,759	279,263
ECE	20	13	65%	21	1.05	5,185,231	259,262	398,864	246,916
FPE	5	3	60%	14	2.80	4,671,784	934,357	1,557,261	333,699
ME	34	20	59%	63	1.85	39,656,824	1,166,377	1,982,841	629,473
Engineering Totals	92	60	65%	174	1.89	80,894,767	879,291	1,348,246	464,912
IGSD	2	1	50%	1	0.50	31,500	15,750	31,500	31,500
TOTALS	253	136	54%	354	1.40	\$ 199,895,661	\$ 1,950,156	\$ 790,101	\$ 7,708
STEM Departments	197	124	63%	340	1.73	\$ 193,356,501	\$ 1,681,639	\$ 981,505	\$ 8,536

5.3 Faculty Award Participation by Department (including co-PIs)

Worcester Polytechnic Institute
Number of Faculty Participating as PI or Co-PI on FY 2017 Awards
(Tenured & Tenure-track Faculty Only)

Department	# of faculty	# of faculty receiving awards as PI only	# of faculty receiving awards as co-PI only	# of faculty receiving awards as PI and co-PI	Total faculty receiving awards	Overall participation rate
Arts & Sciences						
BBT	15	6	0	0	6	40.0%
CBC	12	5	1	0	6	50.0%
CS	26	6	7	5	18	69.2%
H&A	29	0	4	1	5	17.2%
MA	27	6	2	2	10	37.0%
PH	12	2	2	0	4	33.3%
SSPS	13	1	1	1	3	23.1%
A&S Total	134	26	17	9	52	38.8%
Business	25	3	1	1	5	20.0%
Engineering						
BME	10	1	1	5	7	70.0%
CHE	12	3	1	2	6	50.0%
CEE	11	3	3	0	6	54.5%
ECE	20	7	6	2	15	75.0%
FPE	5	2	0	1	3	60.0%
ME	34	9	5	1	15	44.1%
Engineering Total	92	25	16	11	52	56.5%
IGSD	2	0	0	0	0	0.0%
Totals	253	54	34	21	109	43.1%
STEM Depts	197	51	29	19	99	50.3%

5.4 Faculty Proposal Participation by Department (including co-PIs)

Worcester Polytechnic Institute
Number of Faculty Participating as PI or Co-PI on FY 2017 Proposals
(Tenured & Tenure-track Faculty Only)

Department	# of faculty	# of faculty submitting proposals as PI only	# of faculty submitting proposals as co-PI only	# of faculty submitting proposals as PI and co-PI	Total faculty submitting proposals	Overall participation rate
Arts & Sciences						
BBT	15	5	1	2	8	53.3%
CBC	12	6	3	0	9	75.0%
CS	26	8	3	13	24	92.3%
H&A	29	3	5	0	8	27.6%
MA	27	9	1	5	15	55.6%
PH	12	5	0	4	9	75.0%
SSPS	13	2	3	1	6	46.2%
A&S Total	134	38	16	25	79	59.0%
Business	25	4	3	4	11	44.0%
Engineering						
BME	10	4	5	1	10	100.0%
CHE	12	3	1	6	10	83.3%
CEE	11	3	2	2	7	63.6%
ECE	20	9	2	5	16	80.0%
FPE	5	1	0	2	3	60.0%
ME	34	8	2	11	21	61.8%
Engineering Total	92	28	12	27	67	72.8%
IGSD	2	0	1	0	0	0.0%
Totals	253	70	32	56	157	62.1%
STEM Depts	197	63	23	52	138	70.1%

6. Success of FY2016 Proposals

It takes, on average, approximately seven months to receive a funding decision on each proposal that we submit. Because of this, it is still too soon to know how our FY 2017 proposals have fared – almost half are still awaiting a decision. We can, however, look at our proposals from FY 2016. These proposals were submitted prior to June 30, 2016 and have had ample time to be reviewed by the funding agencies.

The success rates for FY 2016 proposals are shown in figures 6.1 and 6.2 below.

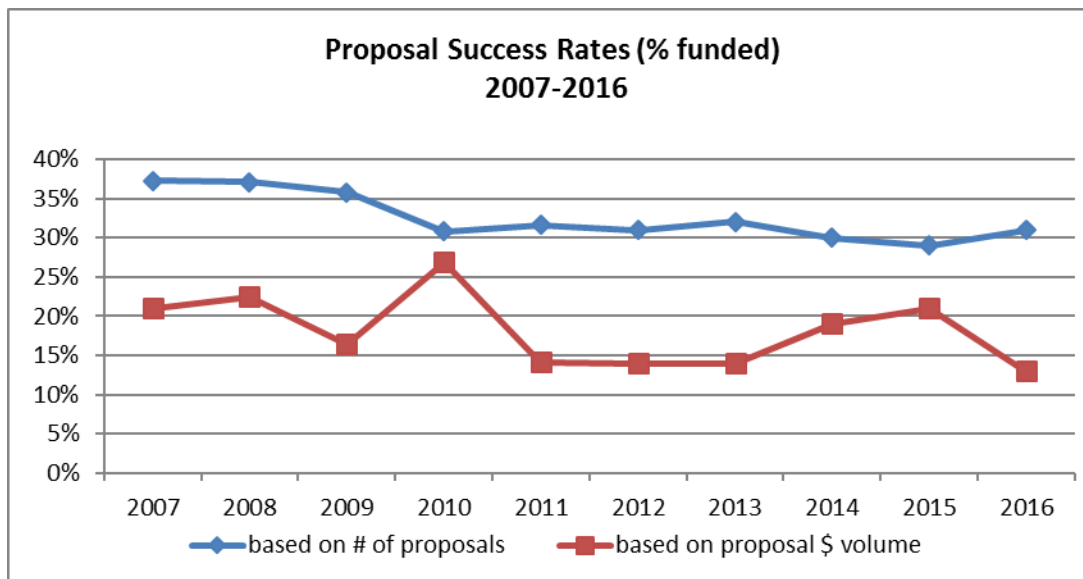
Figure 6.1

**Worcester Polytechnic Institute
Status of Proposals Submitted in FY 2016**

Status	Number	%	\$ Value ¹	%
Funded	123	31%	\$ 29,149,210	13%
Declined	230	59%	\$ 177,781,634	79%
Pending	39	10%	\$ 17,538,583	8%
Total	392	100%	\$ 224,469,427	100%

¹ Based on amount of original proposal; assumes full amount will be awarded

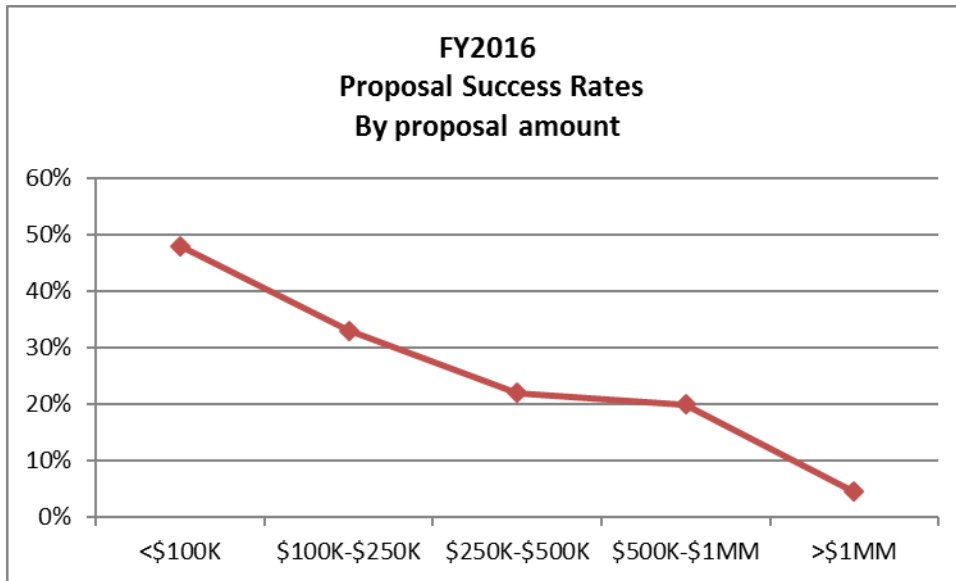
Figure 6.2



6.3 Success Rates by Proposal Size

Worcester Polytechnic Institute
Proposal Success Rates, By Proposal \$ Value
Based on \$ amount requested/funded
Proposals submitted July 1, 2015 to June 30, 2016

	<u><\$100K</u>	<u>\$100K-\$250K</u>	<u>\$250K-\$500K</u>	<u>\$500K-\$1MM</u>	<u>>\$1MM</u>
Awarded	48%	33%	22%	20%	5%
Declined	45%	45%	75%	66%	89%
Pending	7%	22%	3%	14%	7%
Total	100%	100%	100%	100%	100%



7. Historical Review of Proposals, Awards, and Expenditures

Figure 7.1 below provides a snapshot of all proposal, award, and expenditure totals for the most recent ten years.

Figure 7.1

**Worcester Polytechnic Institute
Ten-Year Historical Summary of Sponsored Program Activity
FY2008 (Base Year) to FY2017**

Fiscal Year	Proposal Volume				Award Volume				Expenditure Volume ¹		
	No.	Amount	% Change from Prior Yr.	% Change from Base Yr.	No.	Amount	% Change from Prior Yr.	% Change from Base Yr.	Amount	% Change from Prior Yr.	% Change from Base Year
Base 2008	274	91,400,387			126	14,631,997			12,129,731		
2009	312	126,584,577	38.5%	38.5%	139	13,706,844	-6.3%	-6.3%	12,426,357	2.4%	2.4%
2010	344	185,350,701	46.4%	102.8%	152	17,374,461	26.8%	18.7%	15,117,369	21.7%	24.6%
2011	288	113,086,144	-39.0%	23.7%	136	18,072,893	4.0%	23.5%	17,629,987	16.6%	45.3%
2012	340	207,378,461	83.4%	126.9%	140	18,149,913	0.4%	24.0%	14,819,675	-15.9%	22.2%
2013	345	148,079,871	-28.6%	62.0%	146	25,121,063	38.4%	71.7%	18,379,939	24.0%	51.5%
2014	376	165,351,904	11.7%	80.9%	159	32,993,647	31.3%	125.5%	21,722,725	18.2%	79.1%
2015	379	241,028,388	45.8%	163.7%	194	34,283,312	3.9%	134.3%	28,663,914	32.0%	136.3%
2016	391	224,319,427	-6.9%	145.4%	192	23,089,534	-32.7%	57.8%	29,734,091	3.7%	145.1%
2017	388	204,973,028	-8.6%	124.3%	205	25,735,268	11.5%	75.9%	24,219,004	-18.5%	99.7%

¹Source: Sponsored Programs and Research Accounting files

Appendix: Historical and Supplementary Data

Figure A.1: Proposal/Award \$ Volumes

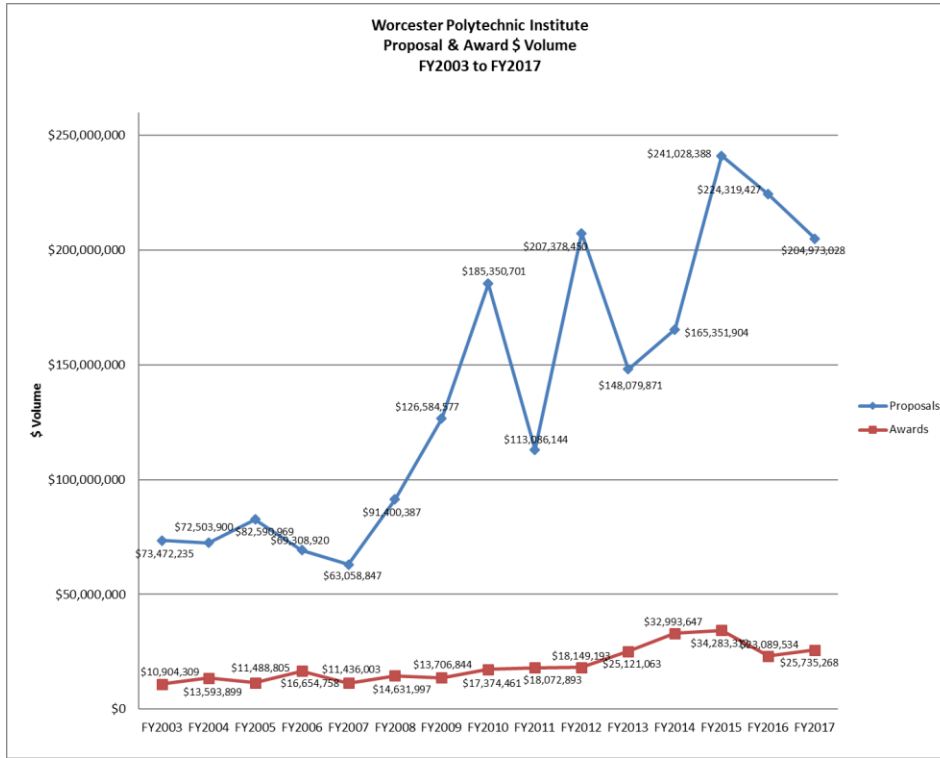


Figure A.2: Proposal/Award Counts

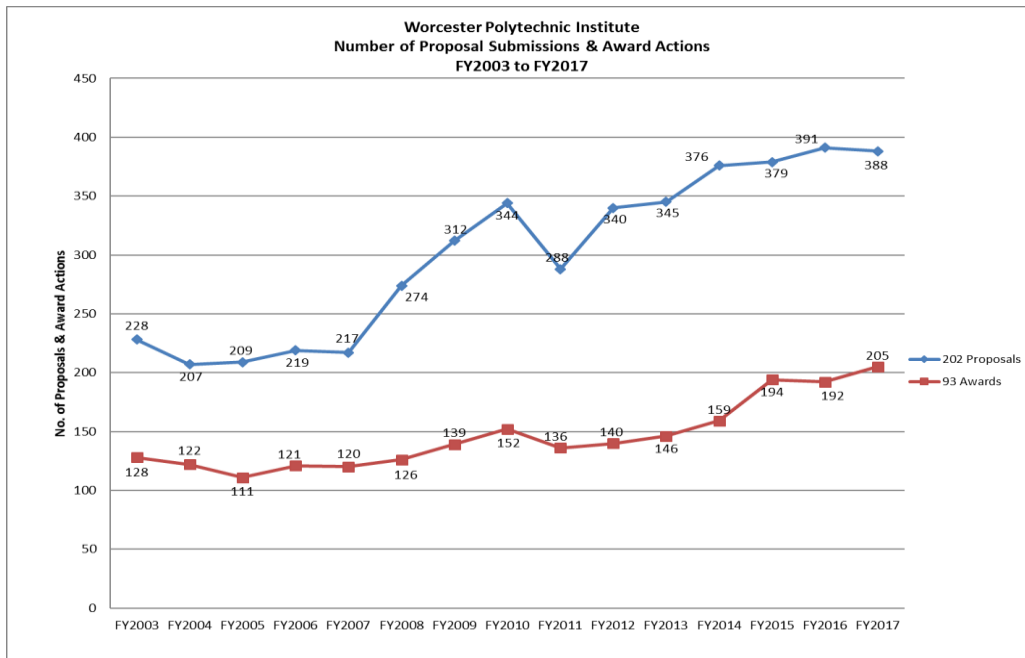


Figure A.3: Ten-year departmental proposal/award trends

