#### Sponsored Program Summary FY19 and 1<sup>st</sup> Quarter FY20 Activities

#### David Reed Vice President for Research December, 2019

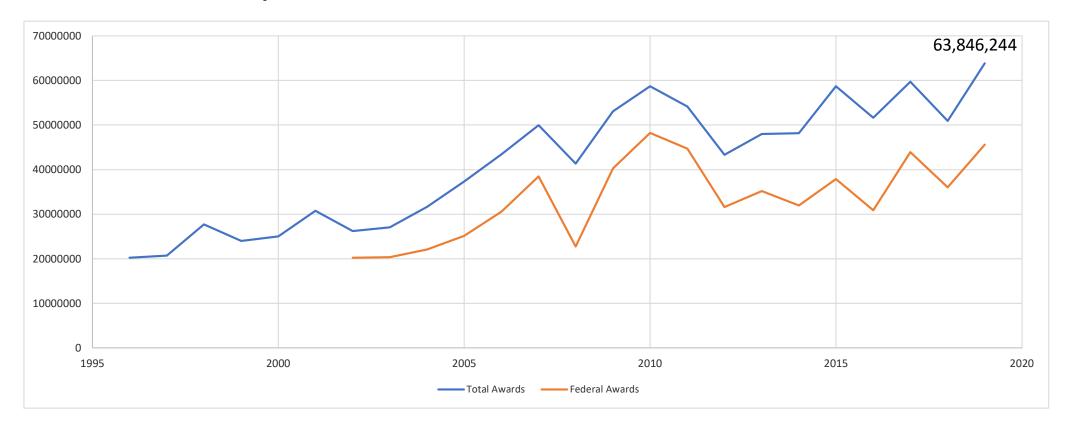


# Outline

- FY19 Results
  - Sponsored Awards
  - Research Expenditures
  - Intellectual Property/Commercialization
  - Corporate Sponsorship
- 1<sup>st</sup> Quarter FY20
  - Sponsored Awards
  - Research Expenditures
- 2018 Faculty Workload Survey

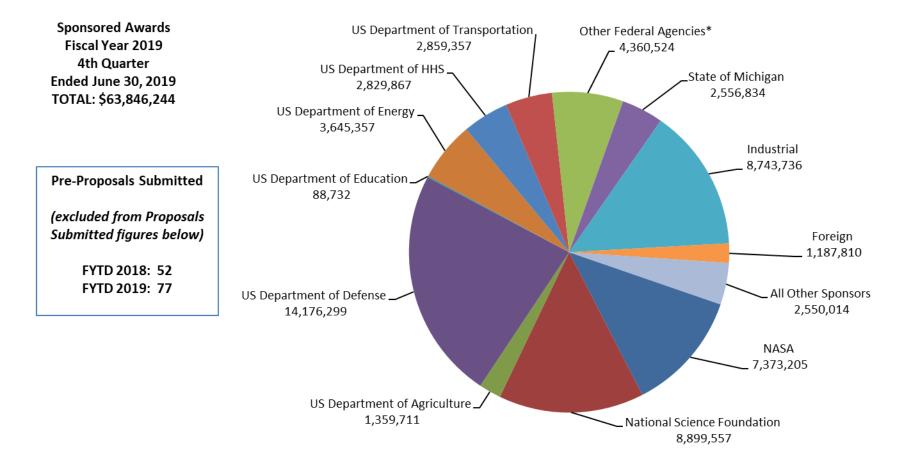


#### Sponsored Awards, FY19





#### Sponsored Awards, FY19





# Sponsored Awards, FY19

	Proposals Submitted		Awards Re	vards Received Awards F		ceived (\$)		
	FY '19	FY '18	FY '19	FY '18	FY '19	FY '18	Variance	Variance
Sponsor	as of 6/30	as of 6/30	as of 6/30	as of 6/30	as of 6/30	as of 6/30	\$	%
NASA	61	55	46	21	7,373,205	4,283,806	3,089,399	72.1%
National Science Foundation	156	178	48	54	8,899,557	8,748,635	150,922	1.7%
US Department of Agriculture	64	51	47	59	1,359,711	2,161,755	-802,044	-37.1%
US Department of Defense	127	109	112	89	14,176,299	11,357,779	2,818,520	24.8%
US Department of Education	4	3	3	2	88,732	141,292	-52,560	-37.2%
US Department of Energy	42	43	22	16	3,645,357	1,477,511	2,167,846	146.7%
US Department of HHS	66	57	11	10	2,829,867	2,211,217	618,650	28.0%
US Department of Transportation	17	14	16	9	2,859,357	1,495,825	1,363,532	91.2%
Other Federal Agencies*	62	45	56	35	4,360,524	4,161,237	199,287	4.8%
Federal Agency Total	599	555	361	295	45,592,609	36,039,057	9,553,552	26.5%
State of Michigan	51	47	31	30	2,556,834	2,400,845	155,989	6.5%
Industrial	218	168	195	148	8,743,736	6,401,825	2,341,911	36.6%
Foreign	26	30	19	20	1,187,810	1,094,523	93,287	8.5%
All Other Sponsors	88	82	50	43	2,550,014	1,461,840	1,088,174	74.4%
Subtotal	982	882	656	536	60,631,003	47,398,090	13,232,913	27.9%
Gifts**	N/A	N/A	275	281	3,152,856	3,468,475	-315,619	-9.1%
Crowd Funding	N/A	N/A	17	9	62,385	25,080	37,305	148.7%
Grand Total	982	882	948	826	63,846,244	50,891,645	\$12,954,599	25.5%

\* US Dept of the Interior, US Dept of Commerce, National Endowments for the Arts & Humanities, US Environmental Protection Agency, US Dept of Labor, US Dept of the Interior, US Small Business Administration, US Dept of Homeland Security, US Dept of State, Office of the Director of National Intelligence

\*\* Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.



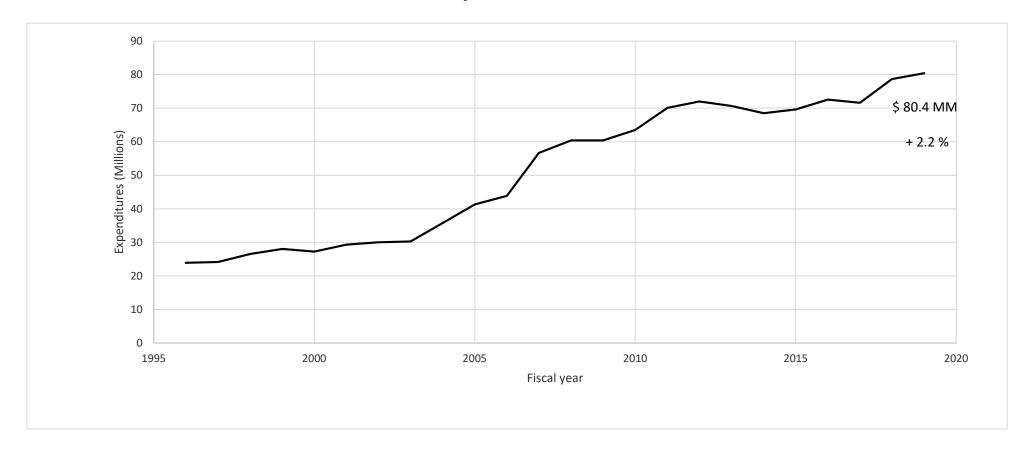
# Research Expenditures, FY19

Michigan Technological University							
Total Research Expenditures by College/School/Division							
Fiscal Year 2019 & 2018							
As of June 30, 2019 Period 14 and June 30, 2018 Period 14							
	Preliminary	Preliminary					
College/School/Division	FY2019	FY2018	Variance	%			
Administration*	4,765,280	3,916,930	848,350	21.7%			
College of Engineering	31,461,566	30,848,486	613,080	2.0%			
College of Science & Arts	16,111,313	17,149,933	(1,038,620)	-6.1%			
Great Lakes Research Center**	847,214	471,791	375,423	79.6%			
Pavlis Honors College	649,719	385,246	264,473	68.7%			
Keweenaw Research Center (KRC)	9,103,014	9,167,620	(64,606)	-0.7%			
Michigan Tech Research Institute (MTRI)	9,488,525	9,047,027	441,498	4.9%			
School of Business & Economics	1,559,796	1,411,668	148,128	10.5%			
School of Forest Resources & Environmental Science	5,417,651	5,787,261	(369,610)	-6.4%			
School of Technology	1,039,148	492,435	546,713	111.0%			
Total	80,443,226	78,678,397	1,764,829	2.2%			

\*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR. \*\*Includes GLRC department (non-academic researchers) expenditures only. All other GLRC center expenditures are shown in the researchers' respective colleges.



#### Research Expenditures, FY19



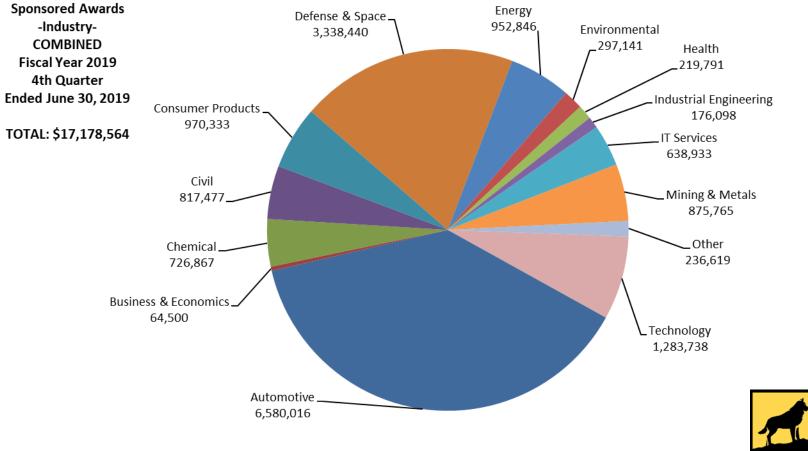


# Intellectual Property, FY19

	FY19	FY18	+/- %
Disclosures Received	35	25	40.0%
Nondisclosure Agreements	97	105	-7.6%
Patents Filed or Issued	20	27	-25.9%
License Agreements	21	14	50.0%
Gross Royalties	\$334,790	\$354,545	



# Corporate Sponsorship, FY19





### Sponsored Awards – 1<sup>st</sup> Quarter FY20

	Proposals Submitted		Awards Received		Awards Received (\$)			
	FY '20	FY '19	FY '20	FY '19	FY '20	FY '19	Variance	Variance
Sponsor	as of 09/30	as of 09/30	as of 09/30	as of 09/30	as of 09/30	as of 09/30	\$	%
NASA	7	12	22	30	579,264	3,657,650	-3,078,386	-84.2%
National Science Foundation	34	43	32	29	6,834,527	6,197,468	637,059	10.3%
US Department of Agriculture	9	16	25	25	1,325,648	761,633	564,015	74.1%
US Department of Defense	21	34	21	32	4,480,086	4,273,161	206,925	4.8%
US Department of Education	1	2	1	-	47,906	-	47,906	N/A
US Department of Energy	15	8	6	4	1,071,452	426,094	645,358	151.5%
US Department of HHS	4	3	6	2	2,144,943	814,721	1,330,222	163.3%
US Department of								
Transportation	1	7	4	2	1,092,442	47,999	1,044,443	2176.0%
Other Federal Agencies*	9	9	14	17	887,504	1,926,660	-1,039,156	-53.9%
Federal Agency Total	101	134	131	141	18,463,772	18,105,386	358,386	2.0%
State of Michigan	14	10	6	9	1,107,662	609,081	498,581	81.9%
Industrial	57	80	28	46	652,020	1,470,245	-818,225	-55.7%
Foreign	7	5	5	5	57,873	116,287	-58,414	-50.2%
All Other Sponsors	30	22	16	18	204,381	333,410	-129,029	-38.7%
Subtotal	209	251	186	219	20,485,708	20,634,409	-148,701	-0.7%
Gifts**	N/A	N/A	52	47	855,385	543,230	312,155	57.5%
Crowd Funding	N/A	N/A	8	4	7,659	7,844	-185	-2 4%
Grand Total	209	251	246	270	21,348,752	21,185,483	\$163,269	0.8%

\* US Dept of the Interior, US Dept of Commerce, National Endowments for the Arts & Humanities, US Environmental Protection Agency, US Dept of Labor, Office of the Director of National Intelligence, US Dept of Homeland Security

\*\*Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.



# Research Expenditures – 1<sup>st</sup> Quarter FY20

1,555,862 446,183 6,211,783	1,734,428 N/A	(178,566) 446,183	-10.3% N/A
,		446,183	N/A
6,211,783	6 407 601		1 1/7 1
	6,427,621	(215,838)	-3.4%
2,727,589	2,854,628	(127,039)	-4.5%
202,488	87,840	114,648	130.5%
95,537	91,594	3,943	4.3%
1,414,461	1,723,948	(309,487)	-18.0%
2,259,632	1,940,095	319,537	16.5%
242,465	251,509	(9,044)	-3.6%
1,035,955	1,157,429	(121,474)	-10.5%
N//	167,019	(167,019)	-100.0%
16,191,955	16,436,111	(244,156)	-1.5%
	2,259,632 242,465 1,035,955 N//	2,259,632 1,940,095 242,465 251,509 1,035,955 1,157,429 N/A 167,019	2,259,632 1,940,095 319,537 242,465 251,509 (9,044) 1,035,955 1,157,429 (121,474) N/A 167,019 (167,019)

\*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.

\*\*Includes GLRC department (non-academic researchers) expenditures only. All other GLRC center expenditures are shown in the researchers' respective colleges.



#### 2018 Faculty Workload Survey



2018 FDP Faculty Workload Survey Report Supplement:

**Institution Results for:** 

Michigan Technological University (HS1)



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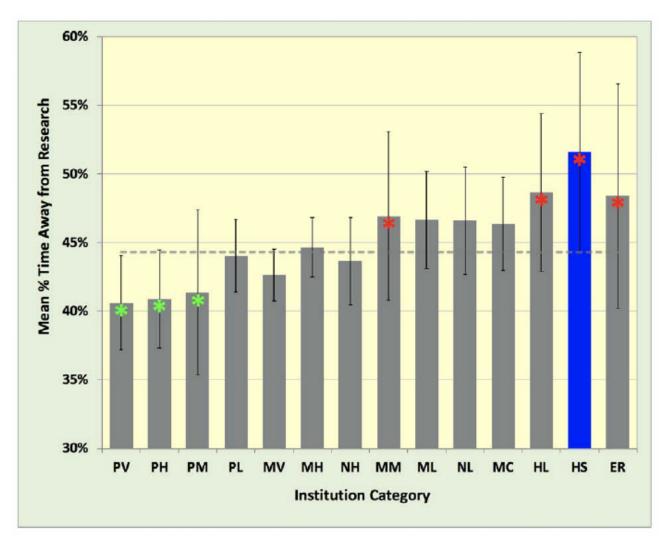


Figure 1. Average of institution-based estimates of percentage of research time taken away from active research for federally-funded PIs from 14 institution categories. Error bars represent the standard deviation of average time away for the institutions within the category. The dotted line bisecting the graph represents the combined overall PI average estimate of 44.3% research time away from active research. The legend for institution categories is provided in Table 1 on the previous page.



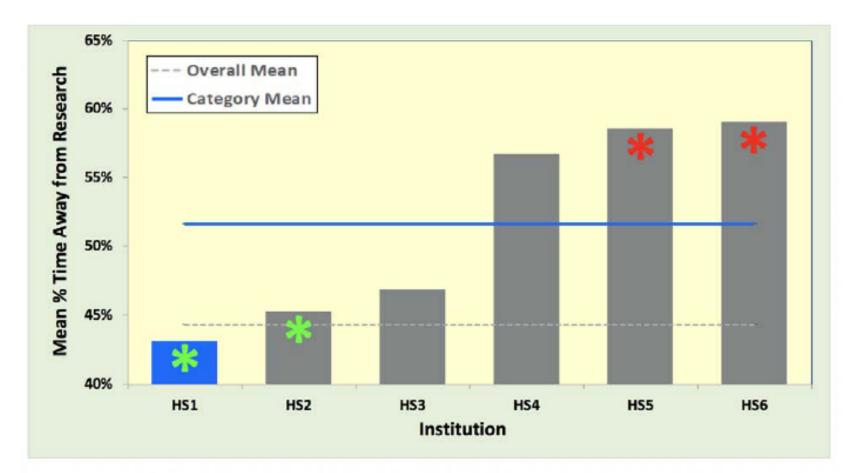


Figure 2. Average proportion of active research time spent on research requirements by PIs at each institution in Category HS. The solid line bisecting the graph indicates the average percent of time taken away from active research for institutions within this category, and the dotted line represents the 44.3% overall average for all PIs.



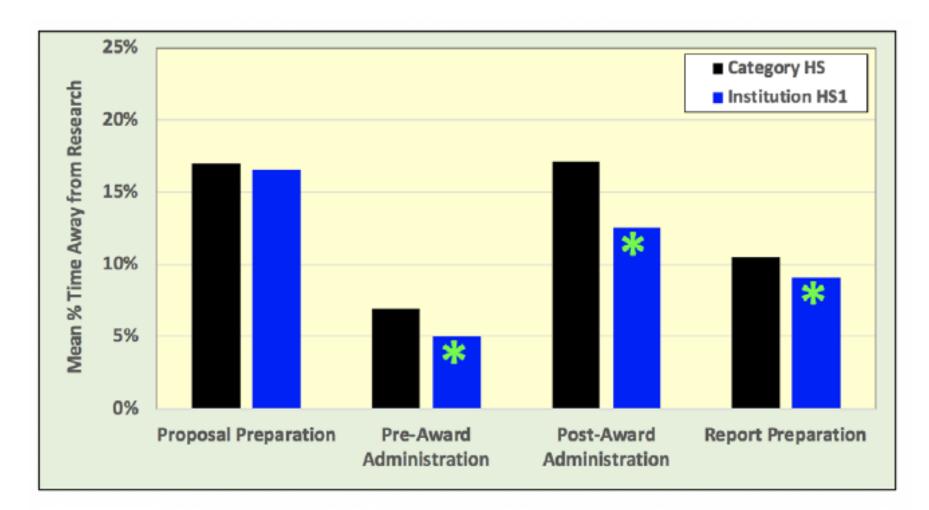


Figure 3. Average estimates of percent of research time devoted to various administrative and other requirements on federally-funded research for Category HS and Institution HS1.



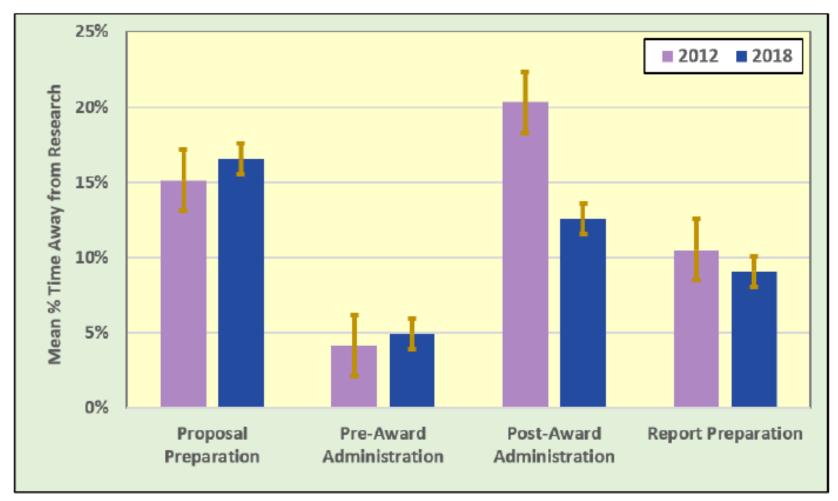


Figure 5. Comparison of 2012 and 2018 average estimates of research time devoted to various administrative and other requirements on federally-funded research for respondents at Institution

**HS1.** Error bars represent ±1 standard error about the mean averaged across requirements.



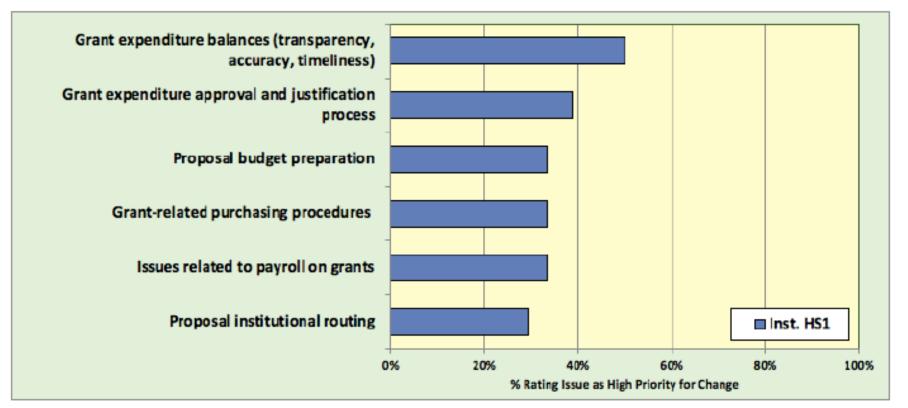


Figure 31. Percent who rated each project finance component as high priority for reduced administrative burden for Category HS and Institution HS1.



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