

Sponsored Program Summary FY20 and 1st Quarter FY21 Activities

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Vice President for Research

December, 2020



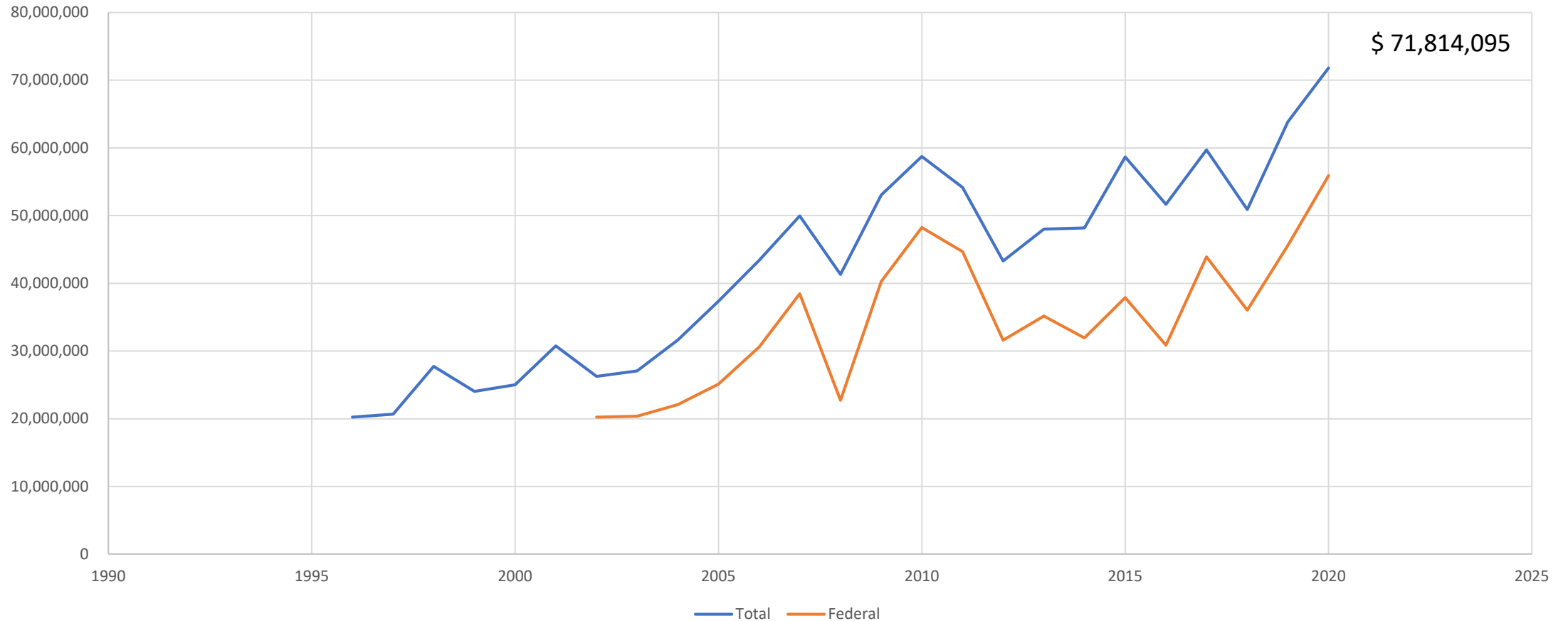
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Outline

- FY20 Results
 - Sponsored Awards
 - Research Expenditures
 - Intellectual Property/Commercialization
 - Corporate Sponsorship
- 1st Quarter FY21
 - Sponsored Awards
 - Research Expenditures
- Large and Significant Awards 1st Quarter FY21



Sponsored Awards, FY20



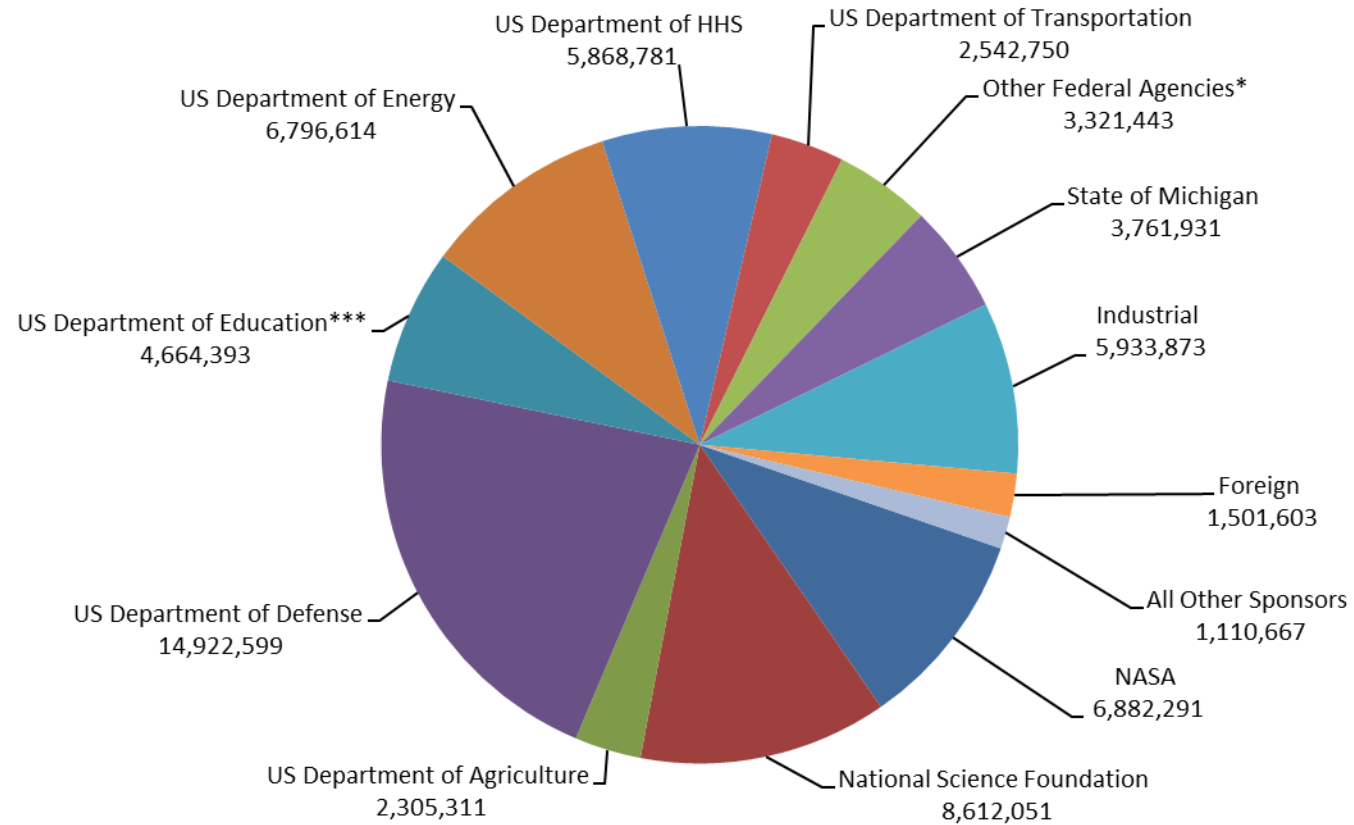
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Sponsored Awards, FY20

Sponsored Awards
Fiscal Year 2020
4th Quarter
Ended June 30, 2020
TOTAL: \$71,814,093

Pre-Proposals Submitted
*(excluded from Proposals
Submitted figures below)*

FYTD 2019: 77
FYTD 2020: 45



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Sponsored Awards, FY20

Sponsor	Proposals Submitted		Awards Received		Awards Received (\$)		Variance \$	Variance %
	FY '20 as of 6/30	FY '19 as of 6/30	FY '20 as of 6/30	FY '19 as of 6/30	FY '20 as of 6/30	FY '19 as of 6/30		
NASA	85	61	70	46	6,882,291	7,373,205	-490,914	-6.7%
National Science Foundation	133	156	52	48	8,612,051	8,899,557	-287,506	-3.2%
US Department of Agriculture	50	64	35	47	2,305,311	1,359,711	945,600	69.5%
US Department of Defense	113	127	97	112	14,922,599	14,176,299	746,300	5.3%
US Department of Education***	5	4	5	3	4,664,393	88,732	4,575,661	5156.7%
US Department of Energy	53	42	32	22	6,796,614	3,645,357	3,151,257	86.4%
US Department of HHS	54	66	19	11	5,868,781	2,829,867	3,038,914	107.4%
US Department of Transportation	14	17	13	16	2,542,750	2,859,357	-316,607	-11.1%
Other Federal Agencies*	54	62	48	56	3,321,443	4,360,524	-1,039,081	-23.8%
Federal Agency Total	561	599	371	361	55,916,233	45,592,609	10,323,624	22.6%
State of Michigan	40	51	29	31	3,761,931	2,556,834	1,205,097	47.1%
Industrial	175	218	150	195	5,933,873	8,743,736	-2,809,863	-32.1%
Foreign	22	26	12	19	1,501,603	1,187,810	313,793	26.4%
All Other Sponsors	88	88	47	50	1,110,667	2,550,014	-1,439,347	-56.4%
Subtotal	886	982	609	656	68,224,307	60,631,003	7,593,304	12.5%
Gifts**	N/A	N/A	233	275	3,569,565	3,152,856	416,709	13.2%
Crowd Funding	N/A	N/A	15	17	20,221	62,385	-42,164	-67.6%
Grand Total	886	982	857	948	71,814,093	63,846,244	\$7,967,849	12.5%

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

**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.

*** US Department of Education includes \$4,605,779 of CARES ACT funding received in Q4



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Research Expenditures, FY20

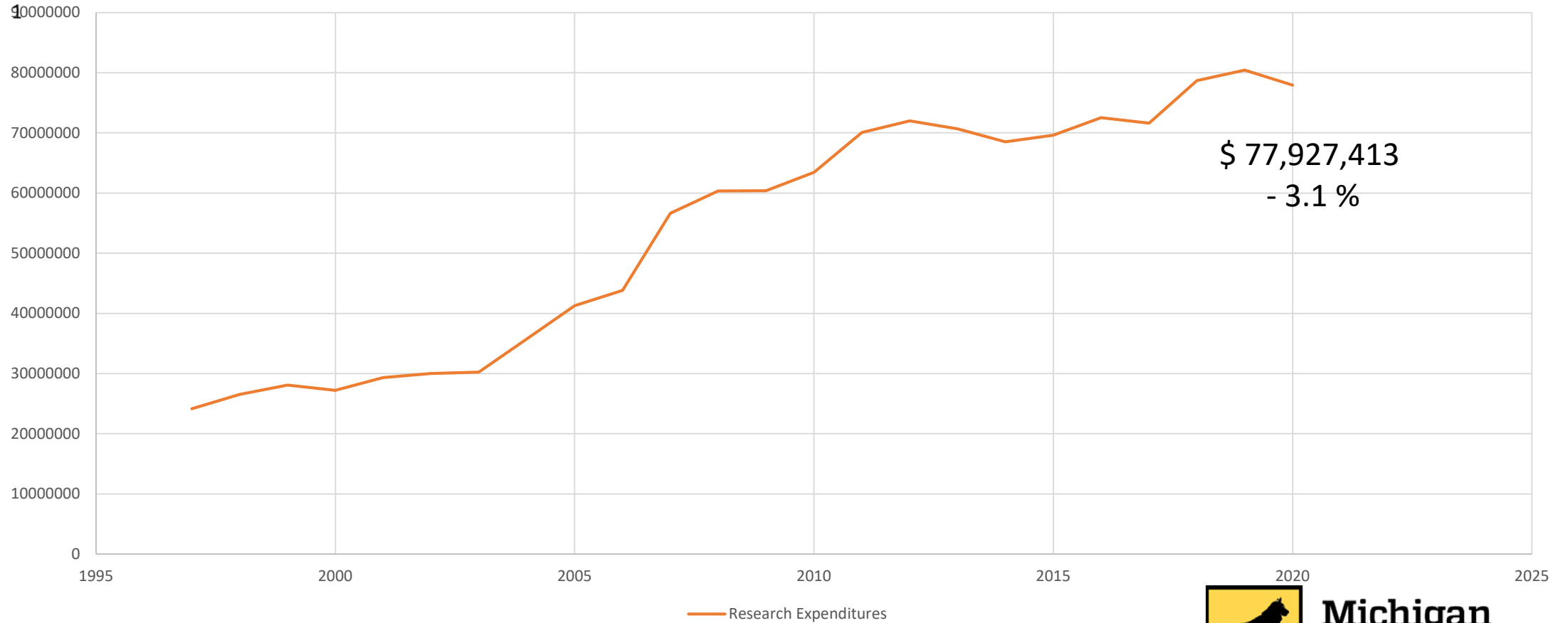
College/School/Division	Preliminary FY2020	Preliminary FY2019	Variance	%
Administration*	2,346,630	4,765,280	(2,418,650)	-50.8%
College of Business	1,551,760	1,559,796	(8,036)	-0.5%
College of Computing	2,925,595	N/A	2,925,595	N/A
College of Engineering	29,761,464	31,461,566	(1,700,102)	-5.4%
College of Forest Resources & Environmental Science	5,070,043	5,417,651	(347,608)	-6.4%
College of Science & Arts	14,718,484	16,111,313	(1,392,829)	-8.6%
Great Lakes Research Center**	1,016,771	847,214	169,557	20.0%
Pavlis Honors College	515,516	649,719	(134,203)	-20.7%
Keweenaw Research Center (KRC)	9,543,097	9,103,014	440,083	4.8%
Michigan Tech Research Institute (MTRI)	10,478,063	9,488,525	989,538	10.4%
School of Technology	N/A	1,039,148	(1,039,148)	-100.0%
Total	77,927,423	80,443,226	(2,515,803)	-3.1%
*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.				

External Expenditures +2.6 %
 Internal Expenditures - 9.4 %



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Research Expenditures, FY20



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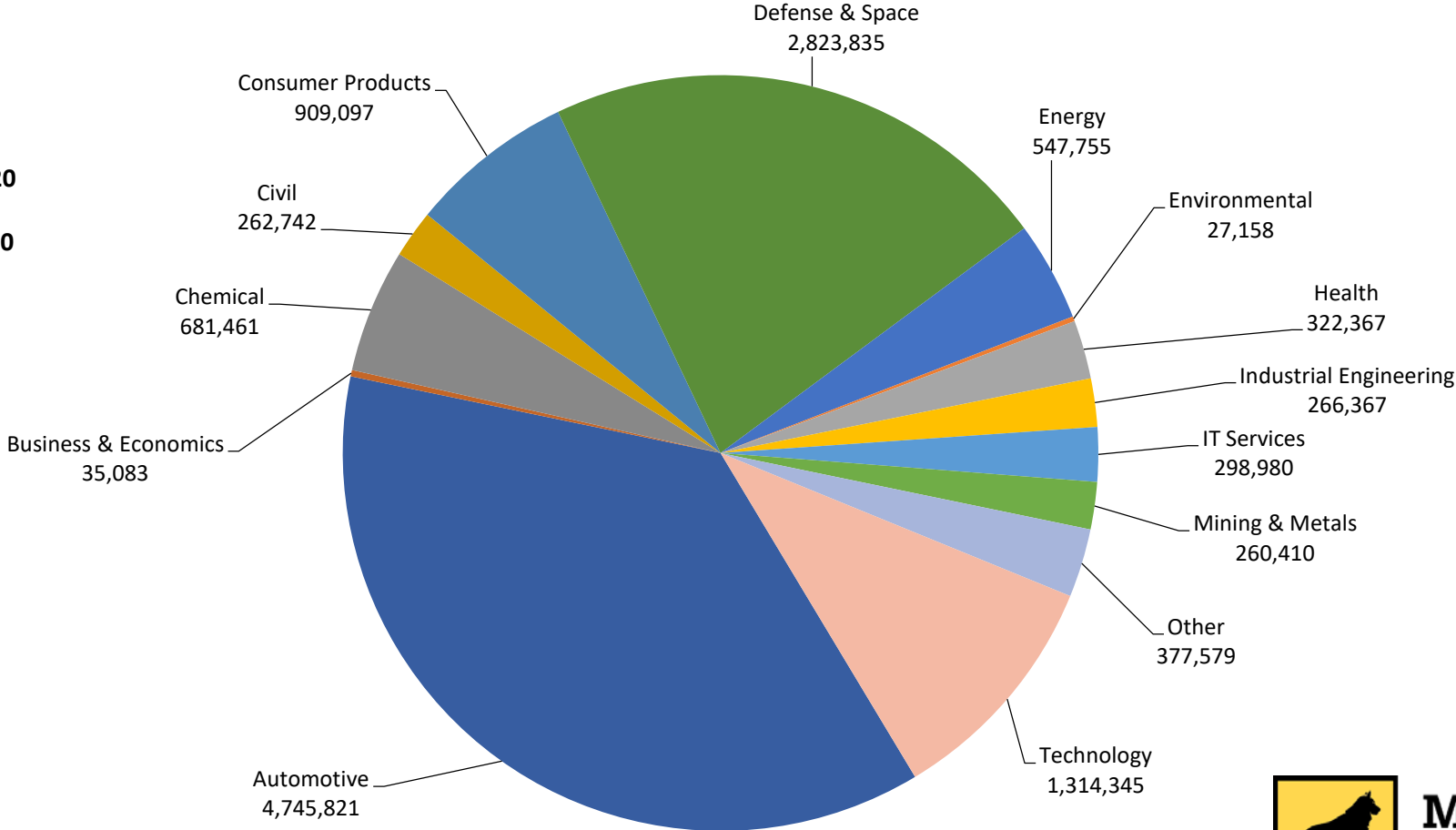
Intellectual Property, FY20

	FY20	FY19	+/- %
Disclosures Received	25	35	- 28.6 %
Nondisclosure Agreements	97	97	0.0 %
Patents Filed or Issued	26	20	30.0 %
License Agreements	16	21	- 23.8 %
Gross Royalties	\$ 221,391	\$334,790	-33.9 %



Corporate Sponsorship, FY20

Sponsored Awards
-Industry-
COMBINED
PRELIMINARY
Fiscal Year 2020
4th Quarter
Ended June 30, 2020
TOTAL: \$12,873,000



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Sponsored Awards – 1st Qtr FY21

Sponsor	Proposals Submitted		Awards Received		Awards Received (\$)		Variance \$	Variance %
	FY '21 as of 9/30	FY '20 as of 9/30	FY '21 as of 9/30	FY '20 as of 9/30	FY '21 as of 9/30	FY '20 as of 9/30		
NASA	17	7	13	22	684,908	579,264	105,644	18.2%
National Science Foundation	26	34	20	32	4,995,720	6,834,527	-1,838,807	-26.9%
US Department of Agriculture	10	9	31	25	1,741,702	1,325,648	416,054	31.4%
US Department of Defense	31	21	24	21	7,037,279	4,480,086	2,557,193	57.1%
US Department of Education	-	1	-	1	-	47,906	-47,906	-100.0%
US Department of Energy	13	15	15	6	1,415,458	1,071,452	344,006	32.1%
US Department of HHS	8	4	4	6	955,319	2,144,943	-1,189,624	-55.5%
US Department of Transportation	3	1	3	4	788,126	1,092,442	-304,316	-27.9%
Other Federal Agencies*	12	9	11	14	1,281,762	887,504	394,258	44.4%
Federal Agency Total	120	101	121	131	18,900,274	18,463,772	436,502	2.4%
State of Michigan	10	14	8	6	566,820	1,107,662	-540,842	-48.8%
Industrial	48	57	27	28	837,713	652,020	185,693	28.5%
Foreign	4	7	5	5	546,448	57,873	488,575	844.2%
All Other Sponsors	22	30	9	16	153,976	204,381	-50,405	-24.7%
Subtotal	204	209	170	186	21,005,231	20,485,708	519,523	2.5%
Gifts**	N/A	N/A	39	52	450,021	855,385	-405,364	-47.4%
Crowd Funding	N/A	N/A	4	8	6,776	7,659	-883	-11.5%
Grand Total	204	209	213	246	21,462,028	21,348,752	\$113,276	0.5%

* US Dept of the Interior, US Dept of Commerce, National Endowments for the Arts & Humanities, US Dept of Labor, 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, entrepreneurship, research, youth programs and special programs.



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Research Expenditures – 1st Qtr FY21

College/School/Division	FY2021	FY2020	Variance	%
Administration*	1,910,845	1,555,862	354,983	22.8%
College of Business	229,728	242,465	(12,737)	-5.3%
College of Computing	691,554	446,183	245,371	55.0%
College of Engineering	6,382,852	6,211,783	171,069	2.8%
College of Forest Resources & Environmental Science	1,057,772	1,035,955	21,817	2.1%
College of Science & Arts	2,651,724	2,727,589	(75,865)	-2.8%
Great Lakes Research Center**	248,161	202,488	45,673	22.6%
Pavlis Honors College	93,698	95,537	(1,839)	-1.9%
Keweenaw Research Center (KRC)	1,823,082	1,414,461	408,621	28.9%
Michigan Tech Research Institute (MTRI)	2,313,847	2,259,632	54,215	2.4%
Total	17,403,263	16,191,955	1,211,308	7.5%
*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.				

External Expenditures + 10.0 %

Internal Expenditures + 4.3 %



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Large and Significant Awards 1st Qtr FY21

- Average Award Amount:

	FY21	FY20
Total Awards	\$21,462,028	\$21,348,752
Number of Awards	213	246
Overall Average Award	\$100,760	\$86,784
Federal Average	\$156,201	\$140,944



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Large and Significant Awards 1st Qtr FY21

- Huentemeyer (PH), NSF, \$ 860,003, WoU-MMA: The Southern Wide-Field Gamma-Ray Observatory (SWGGO): R&D for a Next-Generation Ground-Based Survey Instrument for VHE Gamma-Ray Astronomy
- Gagnon, Baird, Perlinger, Urban (GLRC), NSF, \$ 749,801, CNH2-S: Convergence Research: Bridging knowledge systems and expertise for understanding the dynamics of a contaminated Tribal landscape system
- Liu, Billmore, Colling, Yang (CEE), USDOT, \$ 689,239, Autonomous Winter Road Maintenance Decision Making Enabled by Boosting Existing Transportation Data Infrastructure with Deep and Reinforcement Learning
- Sanders, Licavoli (MSE), DOE, \$ 500,000, Rapid Bayesian High Entropy Alloy Designs Fabricated via Wire Arc Additive Manufacturing



Large and Significant Awards 1st Qtr FY21

- Pearce, Abadi, Guney, Lee, Suh (MSE), NSF, \$ 396,632, MRI:
Acquisition of Nanoscribe Photonic Professional GT2 3D Lithography System
- Burton, Cavalieri, Liu, Resh, Wolffe, (CFRES), NSF, \$ 327,067, MRI:
Acquisition of an Isotope Ratio Mass Spectrometer for using stable isotopes to study complex ecological systems



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