

Michigan
Technological
University

Michigan Tech[®]
Create the Future

Year Ended
June 30, 2013

Single Audit Act
Compliance

MICHIGAN TECHNOLOGICAL UNIVERSITY

Table of Contents

	<u>Page</u>
Independent Auditors' Report on the Schedule of Expenditures of Federal Awards Required by OMB Circular A-133	1
Schedule of Expenditures of Federal Awards	2
Notes to Schedule of Expenditures of Federal Awards	16
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	19
Independent Auditors' Report on Compliance for Each Major Federal Program and on Internal Control over Compliance Required by OMB Circular A-133	21
Schedule of Findings and Questioned Costs	23
Summary Schedule of Prior Audit Findings	26



**INDEPENDENT AUDITORS' REPORT ON THE
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
REQUIRED BY OMB CIRCULAR A-133**

December 12, 2013

To the Board of Control
Michigan Technological University
Houghton, Michigan

We have audited the financial statements of **Michigan Technological University** (the "University"), as of and for the year ended June 30, 2013, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We issued our report thereon dated December 12, 2013, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by OMB Circular A-133 and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Student Financial Assistance Cluster:				
U.S. Department of Education				
Federal Work-Study Program	84.033	Direct	-n/a-	\$ 284,326
Federal Pell Grant Program	84.063	Direct	-n/a-	5,836,503
Federal Supplemental Educational Opportunity Grants	84.007	Direct	-n/a-	234,183
Federal Direct Student Loans	84.268	Direct	-n/a-	28,810,172
Federal Perkins Loan Program	84.038	Direct	-n/a-	1,966,932
Total Student Financial Assistance Cluster				37,132,116
Research and Development Cluster:				
U.S. Department of Agriculture				
No CFDA Number:				
USAGR-FFC-ESC-Soil Monitoring Metho	10.unk	Direct	07-CS-11221662-307	1,078
USAGR-ESC-FFC-Carbon H2O & Soils	10.unk	Direct	09-CR-11242306-048	61,518
USAGR-ESC-FFC-Red Pine Thinning	10.unk	Direct	09-JV-11242307-009 MOD 1	1,213
USAGR-ESC-FFC-Peatlands Env Chg	10.unk	Direct	10-CS-11091000-022	132,584
USAGR-ESC-FFC-North Eco Experiment	10.unk	Direct	10-JV-11242313-051	17,221
USAGR-ESC-FFC-Marcell Exp Forest	10.unk	Direct	10-JV-11242307-067	25,147
USAGR-FFC-ESC-Fire Impct Wood Dcomp	10.unk	Direct	08-JV-11221633-222	55,746
Cooperative Management of Archaeolo	10.unk	Direct	10-CS-11091000-022	2,783
USAGR-FFC-ESC Soil Survey Methods	10.unk	Direct	10-JV-11242305-119	14,061
USAGR-ESC-FFC Peatland Rsh Houghtn	10.unk	Direct	02-JV-11231300-084	17,767
USAGR-ESC-FFC-Black Ash Wetlands	10.unk	Direct	11-CS-11090100-006	108,083
USAGR-ESC-FFC-Fire Management Natur	10.unk	Direct	11-JV-11221633-078	47,849
USAGR-ESC-FFC-Native Plant Prod Res	10.unk	Direct	11-JV-11221632-130	58,230
USAGR-ESC-FFC-Poplar Energy Crops	10.unk	Direct	11-JV-11242313-088	34,400
USAGR-ESC-FFC-Pile Burning in US	10.unk	Direct	11-JV-11221633-160	14,690
USAGR-ESC-FFC-Impacts of Reburns	10.unk	Direct	11-CS-11221633-154	35,368
USAGR-CWS-Sand Accumltn Lk Superior	10.unk	Direct	11-CR-11242307-107	6,883
USAGR-ESC-FFC-Wood Stake Decomp.	10.unk	Direct	11-JV-11242301-081	14,491
USAGR-FFC-ESC-Propertes of Ironwood	10.unk	Direct	12-JV-11111133-059	1,765
USAGR-ESC-FFC-Nat'l Soil Carbon Net	10.unk	Direct	09-CR-11242306-086	50,453
USAGR-ESC-FFC-Instruct Climate	10.unk	Direct	12-JV-11242306-130	6,871
USAGR-ESC-FFC-Enironmental Change	10.unk	Direct	12-JV-11242306-105	28,686
USAGR-GIS Interface WEPP Watershed	10.unk	Direct	12-JV-11221634-175	3,688
NATUR-ESC-FFC-Sage Habitats	10.unk	Nature Conservancy	TNC/MITECH042011	715
REGEN-ESC-FFC-Biomass Inventory	10.unk	The Regents of the University of Idaho	GNK230-SB-001	8,304
				749,594
Plant and Animal Disease, Pest Control, and Animal Care:				
MIAGR-FFC-ESC-Bio Control UP Ash Bo	10.025	Michigan Dept. of Agriculture	GRANT NO. 791N2200379	24,960
Cooperative Forestry Research:				
FY12 McIntire Stennis	10.202	Direct	2012-32100-06098	129,549
FY13 McIntire Stennis	10.202	Direct	2013-32100-06098	105,183
				234,732
Agriculture and Food Research Initiative:				
USAGR-BRC-FFC Root Dev Populus	10.310	Direct	2009-65504-05767	57,848
USAGR-FFC-Overlapping Sense/Antisen	10.310	Direct	2012-67014-19445	32,131
USAGR-FFC-BRC-Lateral OrganBoundary	10.310	Direct	2012-67013-19389	162,154
				252,133
Biomass Research and Development Initiative Competitive:				
USAGR-SFI-HRJ Fuel	10.312	Direct	59-3620-3-002	21,714
Urban and Community Forestry Program:				
USAGR-ESC-FFC-GLRI EAB Plan UP	10.675	Direct	11-DG-11420004-020	41,151
Forest Stewardship Program:				
USAGR-ESC-FFC-Beech Bark Disease	10.680	Direct	09-CA-11420004-308	20,305
Sugar Maple Dieback in the Upper Gr	10.680	Direct	10-DG-11420004-143	40,729
USAGR-ESC-FFC-Gypsy Moth Houghton	10.680	Direct	11-CA-11420004-067	10,336
USAGR-ESC-FFC-Ash Trees Tolerance	10.680	Direct	11-DG-11420004-068	62,257
USAGR-ESC-FFC-Ash Mortality in UP	10.680	Direct	11-CA-11420004-331	164,374
USAGR-ESC-FFC-Ground Survey Techno.	10.680	Direct	11-DG-11420004-312	15,979
USAGR-FFC-Oak Wilt	10.680	Direct	12-DG-11420004-201	58,947
				372,927

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued):				
U.S. Department of Agriculture (Concluded)				
ARRA-Capital Improvement and Maintenance:				
Trails Infra Data Cleanup, Verifica	10.687	Direct	10-PA-11094419-074	\$ 206,286
USAGR-ARRA-Trails Infra Data II	10.687	Direct	10-PA-11094419-083	76,201
				<u>282,487</u>
Soil and Water Conservation:				
OREGO-ESC-FFC-Prairie/Chicken Init	10.902	Oregon State University	DA776A-A PRIME 68-7482-12-505	<u>89,864</u>
Total U.S. Department of Agriculture				<u>2,069,562</u>
U.S. Department of Commerce				
No CFDA Number:				
NATIO-IMP-Chemical Analysis	11.unk	Direct	MTU CO #1205036	1,454
HOUGH-ESC-FFC-Pilgrim Watershed	11.unk	Houghton-Keweenaw Conservation District	MTU AGREEMENT #1204026	10,848
LIMNO-GLOSDMOS2 - IOOS/DMAC-02	11.unk	LimnoTech Inc	SUBCON & PRIME #NA10NOS0120041	3,832
				<u>16,134</u>
Integrated Ocean Observing System:				
LIMNO-GLOS IOOS/DMAC-01	11.012	LimnoTech Inc	NA10NOS0120041 #IOOS/DMAC-01	1,921
LIMNO-GLOS DMAC Add'l Funding	11.012	LimnoTech Inc	SUB DMAC-01; PRIME #NA10NOS012	1,855
				<u>3,776</u>
Sea Grant Support:				
UNIVE-CWS-Torch Lake Assessment AOC	11.417	University of Michigan	3002230000 MSG #R/WQ-4	<u>84,408</u>
Coastal Zone Management Administration Awards:				
MIDEQ-FFC-ESC-Bat Activity	11.419	Michigan Dept of Environmental Quality	PROJECT #11-309-07	15,648
MIDEQ-Mining Impacted Strm	11.419	Michigan Dept of Environmental Quality	PROJECT #12.D-13.02	35,670
MIDEQ-FFC-ESC-Portage Waterway	11.419	Michigan Dept of Environmental Quality	PROJECT #12E-13.01	24,946
MIDEQ-MTRI-Remote Sens Rip Currents	11.419	Michigan Dept of Environmental Quality	GRANT #13-RIP-002	41,538
				<u>117,802</u>
National Oceanic and Atmospheric Administration (NOAA):				
Cooperative Institutes:				
UNIVE-Coastal Current Monitoring	11.432	University of Michigan	3002372352	54,670
UNIVE-GLOS Observing Network	11.432	University of Michigan	3002475304 / NA120AR4320071	86,905
UNIVE-GLOS Open Lakes	11.432	University of Michigan	PO #3001278616	142,202
				<u>283,777</u>
Coastal Services Center:				
GREAT - Remote Sensing	11.473	Great Lake Observing System	RC00S08-02	(1,362)
LIMNO-GLOS MPA/DMAC-01	11.473	LimnoTech Inc	NA08NOS4730293 #MPA/DMAC-01	244
				<u>(1,118)</u>
Total U.S. Department of Commerce				<u>504,779</u>
U.S. Department of Defense				
No CFDA Number:				
USAIR-MTRI-Radar Frequency Sensing	12.unk	Direct	FA8750-05-C-0237 P00007	954,162
TACOM-Assured II-VCM Roller Suspen	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-005	54,472
TACOM-Assured II-SIM/SID Threat	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-007	(1,237)
TACOM-Assured II-Hvy VCM Roller	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-008	361,052
OFFIC-SURGE II-LTWT Track	12.unk	Direct	W56HZV-09-C-0477 MTU-TSS-004	45,808
USARM-ARRA-PERC-Army Inst Microgrid	12.unk	Direct	W9132T-10-C-0037	7,844
OFFIC-ASSURED II - AMMS Spark 2	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-009/6	77,173
OFFIC-ASSURED II-AMMS SIM Dev	12.unk	Direct	W56HZV-08-C-0525 WDAMMS-007/15	17,692
TACOM-ASSURED II-FY 11 WNS	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-014	347,157
DARPA-Powerline Sensor Matur Ph II	12.unk	Direct	W9132T-10-C-0026 MOD P00007	373,675
Dismounted Roller Development	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-020	951
OFFIC-ASSURED II-Field VCM Imprvmnt	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-019	377,306
OFFIC-ASSURED II-Micro JP8 Burn	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-018	33,722
TACOM-SURGE II-High Performanc Trck	12.unk	Direct	W56HZV-09-C-0477 MTU-TSS-007	253,858
OFFIC-Husky Driveline Rev 01	12.unk	Direct	W56HZV-08-C-0525 WD-AMMS-017	56,337
USARM-Antarctica Snow Pavements	12.unk	Direct	W913E5-11-C-0001	78,335
USAIR-Multi-Domain Intelligence	12.unk	Direct	FA8750-12-C-0032	765,494
OFFIC-Super Resolution Reconstruct	12.unk	Direct	FA8750-12-C-0119	192,269
USAIR-Penetration Fuzing	12.unk	Direct	FA8651-12-C-0198	66,474

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued):				
U.S. Department of Defense (Continued)				
No CFDA Number:				
OFFIC-ASSURED II-APU Noise Eval	12.unk	Direct	W56HZV-08-C-0525 WD AMMS-021	\$ 143,240
OFFIC-SURGE II-HPLWT Phase 4	12.unk	Direct	W56HZV-09-C-0477 P00012	531,602
USARM-IMP-Aluminum Alloy Processing	12.unk	Direct	PO #PIC11111DK	2,238
USNAV-SFI-Catalyst Design	12.unk	Direct	N00173-12-P-1464	39,954
OFFIC-ASSURED II-SPARK 2 Rake	12.unk	Direct	W56HZV-08-C-0525	333,134
USAIR-Sr Design 57-Jackhammer Rig	12.unk	Direct	FA8651-12-M-0343	36,870
OFFIC-ASSURED-RCV Improvements	12.unk	Direct	W56HZV-08-C-0525 WD-024	489,824
OFFIC-ASSURED-Inline Roller Bank	12.unk	Direct	W56HZV-08-C-0525 WD-023	689,880
USARM-TARDEC: Exhaust Fabrication	12.unk	Direct	W56HZV-13-P-A516	16,050
DARPA-Adaptive RADAR Countermeasure	12.unk	Direct	HR0011-13-C-0032	627,051
OFFIC-ASSURED II-Pointman	12.unk	Direct	W56HZV-08-C-0525 MTU-AMMS-022	473,673
DARPA-Arctic Phenomena Unattnd Sens	12.unk	Direct	W911QX-13-C-0012	538,975
OFFIC-ASSURED II-Route Clearance	12.unk	Direct	W56HZV-08-C-0525 WDAMMS-25	321,903
DARPA-CCSR-FNR-Synchronization	12.unk	Direct	HR0011-13-C-0057	8,678
OFFIC-MuSTI-Study Struc Resp Mat	12.unk	Direct	W911NF-09-2-0026	78,866
USAIR-CISSIC-Multi-Sensor Intell	12.unk	Direct	FA8750-12-2-0108	103,722
ALION-Weapon Systems Acoustic Eval	12.unk	Alion Science and Technology Corporation	ALION SUB 1126301 TASK ORD 003	40,773
CONFIDENTIAL	12.unk	Science Applications	P010038798	16,521
MISSI-SimBRS WE0035 Photo & Radar	12.unk	Mississippi State University	SUBCONTRACT NO 060803-360409-01	18,673
CRAFT-MuSTI-Transfer Offshore	12.unk	Craft Engineering Associates Inc	PO#Z1101	102,861
SCIEN-Hearts	12.unk	Science Applications International Corporation	SUBCONTRACT #P010092279	17,837
SCIEN-Star Section 2.2 Test & Analys	12.unk	Science Applications International Corporation	P010095187 CLIN 1B	11,461
SCIEN-Star Sect 2.1 Studies & Asses	12.unk	Science Applications International Corporation	P010095187 CLIN1A	37,532
HELIO-Waveforms & Related Signal Pr	12.unk	Helios Remote Sensing Systems	1105-S01-HRSSI	125,790
MATRI-Synthetic Aperture RADAR	12.unk	Matrix Research Inc	SUBCONTRACT #AF1336-11-001	118
THERM-CISSIC-Scene Generation	12.unk	Thermoanalytics Inc	PRIME HQ0147-12-C-7899	10,580
SCIEN-Acme	12.unk	Science Applications International Corporation	PRIME 12-C-8917 P010108055	262,972
SCIEN - Sydney	12.unk	Science Applications International Corporation	P010104371 PRIME 09-C-8579	1,998
HELIO-Range/Doppler Straddle	12.unk	Helios Remote Sensing Systems	1120S01-HRSSI W15P7T-12-C-A016	30,755
SYSTE-Windfarm Mitigation	12.unk	Systems & Technology Research LLC	2012-1007 FA8650-12-M-1429	29,240
2LSIN-Husky Tire Vibration Testing	12.unk	ZLS Inc	PO #1922-00;SP4701-11-C-0006	14,661
ALION-Floors/Structures Report	12.unk	Alion Science and Technology Corporation	LETTER SUBCONT DATED 5/10/12	40,580
UNIVE-IMP-Fabrication Melt Spinning	12.unk	Universal Technical Resource Services Inc	UTRS PO#12-219 #10100.001.0001	186,121
ALION-Weapons Systems Contaminant	12.unk	Alion Science and Technology Corporation	SP0700-99-D-0301 SUB1126301	104,231
SYSTE-Mathematical Models	12.unk	Systems Research and Applications Corporation	SUBCONTRACT #5690000302	20,178
CENTE-Support for MCAP Work	12.unk	Center for Automotive Research	W56H2V-11-C-0365 CAR-TSA-ACS	39,956
SCIEN-PILOT-Task 3.3	12.unk	Science Applications International Corporation	#P010124681 (PRIME W15P7T-12-C	167,739
WALTO-Blast Redirection (BREAD)	12.unk	Waltonen Engineering Inc	WEI-0003 PRIME W56HZV09D0156	107,625
AKELA-Buried IED Detection	12.unk	AKELA Inc	AK-2012-1101	460,070
SCIEN-Oak II	12.unk	Science Applications International Corporation	SUBCONTRACT #P010130462	9,434
TECHN-RF-IR Data Collection	12.unk	Technology Service Corporation	TSC-1035-41046	34,998
MATRI-SAR-Aided Navigation Phase 2	12.unk	Matrix Research Inc	PO #2012-0219 SBIR PHASE 2	25,822
PHYSI-MuSTI-Confined Growth	12.unk	Physical Optics Corporation	POC #4717-MTU	10,000
GENER-Movint	12.unk	General Dynamics	13-SC-0020 PRIME #12-C-0293	15,665
THERM-Mitigate Sensor Saturation	12.unk	Thermoanalytics Inc	TAI-13-0430	3,523
SYSTE-Wind Mitigation Phase II	12.unk	Systems & Technology Research LLC	SUB#2013-1023/PRIMEFA8650-13-C	5,862
NORTH-GLRC-FNR-Lake Superior Mining	12.unk	Northrop Grumman Information Systems	SUB#7500114834 US ARMY PRIME	7,141
NATIO-MTRI-Linking NASA Satellite	12.unk	National Institute of Aerospace	X12-7059-MTU-JM	88,903
ACADE-IMP-REAP-6.11.12 Apprentice	12.unk	Academy of Applied Science	CHECK #1663 6/11/12	4,312
PENNS-CWS-Ocean Basin Impact	12.unk	Pennsylvania State University	PRIME N00014-11-1-0619 SA13-05	249
				<u>10,552,385</u>
Basic and Applied Scientific Research:				
MASSA-CISSIC-Eng Mat Init	12.300	Massachusetts Institute of Technology	SUBAWARDM #5710002044	5,041
OFFICE-IMP-Hi St Low Alloy Aluminum	12.300	Direct	N00014-11-1-0876	300,017
USAIR-Photonic Crystal Fiber	12.300	Direct	FA8750-12-1-0136	49,617
OFFIC-Info Recovery Algorithm Comp	12.300	Direct	N00014-13-1-0018	89,664
				<u>444,339</u>
Basic Scientific Research:				
OFFIC-MuSTI-Fund Und Probe-Target	12.431	Direct	W911NF-09-1-0221	<u>24,511</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY
Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued):				
U.S. Department of Defense (Concluded)				
Air Force Defense Research Sciences Program:				
OFFIC-MuSTI-Multiscale Modeling Ply	12.800	Direct	FA9550-09-1-0375	\$ (680)
USAIR-ILI-Oculus-ASR Nanosat Flight	12.800	Direct	FA9550-12-1-0008	69,801
USAIR-Capstone Design Challenge	12.800	Direct	FA9550-11-1-0207	21,969
OFFIC-MuSTI-Model Hybrid Composites	12.800	Direct	FA9550-13-1-0030	15,554
HENRY-MuSTI-Nanoparticles w/Biologi	12.800	Henry M Jackson Foundation	SUBAWARD #718243	13,273
UNIVE-MACEEP-Electric Propulsion	12.800	University of Michigan	3001381267 P2	150,135
UNIVE-CISSIC-Wave Optics Turbulence	12.800	University of Dayton Research Institute	RSC12034	110,767
				<u>380,819</u>
Mathematical Sciences Grants Program:				
OFFIC-FNR-Perfect nonlinearity code	12.901	Direct	H98230-10-1-0159	645
NATIO-FNR-Comb Desgns/Hamada's Conj	12.901	Direct	H98230-12-1-0213	30,482
NATIO-FNR-Precise Probabilistic	12.901	Direct	H98230-12-1-0237	57,896
				<u>89,023</u>
Total U.S. Department of Defense				<u>11,491,077</u>
U.S. Department of Housing and Urban Development				
Lead Technical Studies Grants				
SIROM-BRC-Vetiver Grass	14.902	SIROM Scientific Solutions LLC	MTU CO #1103057	<u>30,504</u>
U.S. Department of Interior				
No CFDA Number:				
USGEO-Algorithms to Map Soil Moistu	15.unk	Direct	G12PX00490	23,024
USPAR-RSI-Zooplankter Park	15.unk	Direct	H6000082000 TASK P08AC00098	3,591
USFIS-Wetlands Assessment & Mapping	15.unk	Direct	TASK ORDER NO. F11AC00735	43,521
USPAR-CEBFM-Ferrous Metals in Herit	15.unk	Direct	MT-2210-12-NC-05	5,579
WISCO-ESC-FFC-Lakeshore Restoration	15.unk	Wisconsin Dept of Natural Resources	PO #NMC00000042, PRO-C-25	79,465
WISCO-FFC-ESC-Lakeshore Restoration	15.unk	Wisconsin Dept of Natural Resources	PO# NMB00000095	3,772
KEWEE-Italian Hall Survey	15.unk	Keweenaw NHP Advisory Commission	CONTRACT DATED 12/20/12	2,050
DUCKS-North Slope Land Cover	15.unk	Ducks Unlimited	US-AK-71-2	801
LITTL-CWS1-Develop Arctic Grayling	15.unk	Little River Band Ottawa Indians	AGREEMENT DATED 1/19/11	73,615
				<u>235,418</u>
				<u>235,418</u>
Cultural Resource Management:				
USBUR-NSSI-Intergov Website Mtce/Op	15.224	Direct	AGMT NO LAA 08 0008/L08AC14728	<u>147,833</u>
Wildland Fire Research and Studies Program:				
FLORI-ESC-FFC-Black Carbon Formatio	15.232	Florida Atlantic University	MRJ06	<u>19,420</u>
ARRA- Environmental Quality and Protection Resource Management:				
USBUR-ARRA-Survey Abandoned Mines	15.236	Direct	L10AC20007	<u>170,800</u>
Keweenaw National Historical Park (NHP) Enhancement Grants:				
KEWEE-Archaeology Cliff Mine 2012	15.407	Keweenaw NHP Advisory Commission	C2012-00018	<u>15,000</u>
Fish and Wildlife Management Assistance: Development and Support of the USFW	15.608	Direct	30181AJ195 / F10AC00214	<u>89,891</u>
Coastal Program:				
USFIS-Abiotic & Biotic Constraints	15.630	Direct	F12AC01384	<u>17,696</u>
Migratory Bird Conservation:				
USFIS-FFC-ESC Disp Gold Wng Warbler	15.647	Direct	301819G086 / F09AC00107	3,670
USFIS-FFC-ESC-Golden Wing Warb	15.647	Direct	F12AP01005	15,367
				<u>19,037</u>
National Fish and Wildlife Foundation:				
NATIO-ESC-Restore Brook Trout	15.663	Direct	PROJECT 0901.11.026938	<u>33,504</u>
U.S. Geological Survey Research and Data Collection:				
USGEO-CWS1-Sturgeon Prod Detroit Riv	15.808	Direct	G11AC20032	21,873
USGEO-Understand Fish Production	15.808	Direct	G12AC20299	63,037
				<u>84,910</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued):				
U.S. Department of Interior (Concluded)				
National Land Remote Sensing-Education Outreach and Research:				
AMERI-Michigan View Consort FY 13	15.815	AmericaView Inc	SUB-AWARD AGRMT AV08-MI01	\$ 17,260
National Resource Stewardship:				
USPAR-ESC-FFC-Wolf Moose 2011-16	15.944	Direct	AGRMT# P11AC90808	57,838
Cooperative Research and Training Programs Ressources of the National Park System:				
USPAR-MTRI-Lake Bottoms	15.945	Direct	TASK AGMT NO P12AC10449	45,112
Total U.S. Department of Interior				953,719
U.S. Department of Justice				
National Institute of Justice Research and Development Grants:				
USJUS-MTTI-Mount Eqt Patrol Vehicle	16.560	Direct	2010-DE-BX-K003	1,947
U.S. Department of Transportation				
No CFDA Number:				
USTRA-MTTI-High Speed Rail Work	20.unk	Direct	DTRF53-11-C-00030	140,232
USTRA-RADAR Measurements NHTSA	20.unk	Direct	DTNH22-12-P-01638 MOD NO 0002	23,425
USTRA-MTTI-Bridge Cond Assessmnt RS	20.unk	Direct	DTOS59-10-H-00001	81,073
USTRA-Unpaved Road Conditions RS	20.unk	Direct	RITARS-11-H-MTU1	528,840
MITRA-MTTI-Alternative Materials	20.unk	Michigan Dept of Transportation	2009-0750 AUTH Z1	52,347
NATIO-MTTI-Joint Deterioration Stud	20.unk	National Concrete Pavement Technology Center	ISU #474-17-40	967
WISCO-MTTI-Class C Fly Ash	20.unk	Wisconsin Dept of Transportation	PROJECT ID 0092-12-04	109,718
JACKS-Imaging Crack Detection	20.unk	Jackson State University	SUB NO 634895, P0057514	8,783
LANZA-SFI-Waste Gas to Jet Fuel	20.unk	LanzaTech Inc	USDOT-FAA DTRT57-12C-10008	84,856
UNIVE-Conduct RF Assay for NHTSA	20.unk	University of Michigan	PRIME #DTNH22-12-P-01589	20,000
NURail Center	20.unk	Michigan Dept of Transportation	CONTRACT 2010-0295 AUTH 8	30,999
MITRA-MTTI-Bridge Decks	20.unk	Michigan Dept of Transportation	2010-0295 AUTH 7	67,564
KEWEE-Paavola and Boston Pond	20.unk	Keweenaw Land Trust	AWARD DATED 2/4/13	6,468
CAMBR-MTTI-Road Practicioners	20.unk	Cambridge Systematics, Inc.	SUBCONTRACT #8738-001	27,024
MITRA-MTTI-FNR-Unmanned Aerial Vehi	20.unk	Michigan Dept of Transportation	CONTRACT 2013-0067 AUTH Z1	6,876
				1,189,172
Highway Research and Development Program:				
IOWAS-MTTI-Joint Deterior. in Concr	20.200	Iowa State University	436-17-25	41,823
Child Safety and Child Booster Seats Incentive Grants:				
MIPOL-2012 Michigan Seat Belt	20.613	Michigan Dept of State Police	OP-12-03	5,923
University Transportation Centers Program:				
USTRA-MTTI-MiSTI 2006	20.701	Direct	DTRT06-G-0033 MOD 1	175,409
OHIOS - Nextran	20.701	Ohio State University	GRT00005994	12,034
OHIOS-NEXTRANS Year 4	20.701	Ohio State University	60037345 PRIME DTRT07-G-0005	5,175
UNIVE-MTTI-Export Container Pooling	20.701	University of Wisconsin-Superior	346K006	5,078
UNIVE-MTTI-NURail Education Center	20.701	University of Illinois at Urbana-Champaign	2012-02061-05-00 CODE:A0694	199,642
				397,338
Transportation Planning, Research and Education:				
USTRA-MTTI-Auto Scour Detect Arrays	20.931	Direct	RITARS-12-H-MTU	207,813
Total U.S. Department of Transportation				1,842,069
Federal Mediation and Conciliation Service				
Labor Management Cooperation:				
FEDER-Lean Training and Outreach	34.002	Direct	11-MI/PS-010	36,358
National Aeronautics and Space Administration				
No CFDA Number:				
USNAS-FNR-CSERI-Pic of the Day	43.unk	Direct	NNX09AD32G	50,330
USNAS-FNR-EPSSI-Vald OMI L2 Sulfur	43.unk	Direct	NNX09AJ40G	54,449
USNAS-APSRC-Heat Trans Evap Films	43.unk	Direct	NNX09AM31G	23,681
USNAS-Vulnerability NA Boreal Peat	43.unk	Direct	NNX09AM15G	294,923
USNAS-Multi-Scale Water Quality Grt	43.unk	Direct	NNX09AU88G	241,098
USNAS-Impact Implication Fire Tund	43.unk	Direct	NNX10AF41G	222,933
USNAS-IMP-Elongated Pore Form	43.unk	Direct	NNX10AV37G	133,477

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued):				
National Aeronautics and Space Administration (Concluded)				
USNAS-Remote Sensing Models	43.unk	Direct	NNX11AC72G	\$ 457,326
USNAS-Anthropogenic Fires	43.unk	Direct	NNX13AC66G	28,636
CFDRE-BRC-FNR-Diagnostics Pathogens	43.unk	CFD Research Corporation	2012001 PRIME NNX12CG02P	22,842
ELECT-ILI-Embedded Controller	43.unk	ElectroDynamic Applications Inc	STUDENT DESIGN PROJECT AGMT	5,867
NATIO-Linking NASA Sat Data	43.unk	National Institute of Aerospace	X09-7059-MTU	63,897
UNIVE-EPSSI-NPP Ozone Mapping	43.unk	University of Maryland College Park	Z664401	10,526
UNIVE-MSGC-CubeSat	43.unk	University of Michigan	CHECK #2621236	7,358
UNIVE-FNR-MSGC-Graphene Biosensors	43.unk	University of Michigan	CHECK #2751150	3,749
UNIVE-MSGC-FNR-Orthostatic Challeng	43.unk	University of Michigan	CHECK #2751150	5,000
UNIVE-FNR-MSGC-RS Gases/Smoke Plume	43.unk	University of Michigan	CHECK #2993583	1,675
UNIVE-FNR-MSGC-Co-Crystals/Rocket	43.unk	University of Michigan	CHECK #2993583	378
				<u>1,628,145</u>
Science:				
USNAS-FNR-EPSSI- A-Train Volcano	43.001	Direct	NNX11AF42G	68,984
USNAS-Biomass Burning for Carbon	43.001	Direct	NNX11AL34G	30,427
USNAS-FNR-EPSSI-FFC-FuelConsumption	43.001	Direct	NNX12AK31G	132,948
USNAS-Carbon Monitoring System	43.001	Direct	NNX12AM91G	160,282
USNAS-FNR-ESC-FFC-Enhancing Tools	43.001	Direct	NNX12AL53G	49,953
USNAS-Carbon Monitoring Products	43.001	Direct	NNX12AP94G	225,229
USNAS-Linking Remote Sensing	43.001	Direct	NNX12AQ89G	40,237
USNAS-Agricultural & Wildland Fire	43.001	Direct	NNX12AQ90G	64,584
USNASA-Lake Erie Drinking Water	43.001	Direct	NNX12AR44G	14,755
USNAS-EPSSI-FNR-Solar Activity	43.001	Direct	NNX113AF90G	22,370
BOWDO-Carbon Export Maine Coast	43.001	Bowdoin College	AGREEMENT NO 2011 001	199,333
CARNE-CO2 Monitoring Network	43.001	Carnegie Institute of Washington	SUBCONTRACT NO 9-10330-01	10,684
MASSA-GLRC-FNR-EcologicalVaiability	43.001	Massachusetts Institute of Technology	5710003376	2,818
UNIVE-FNR-EPSSI-Volanic Sulfate	43.001	University of Nebraska - Lincoln	25-0514-0108-002 #NNX10AG60G	54,019
UNIVE-CWS-Connecting Phytoplankton	43.001	University of Wisconsin-Madison	412K716 PRIME NNX11AD59G	34,896
UNIVE-MSI STEM Students Capstone	43.001	Universidad del Turabo	2010T-02	68,467
				<u>1,179,986</u>
Aeronautics:				
USNAS-FNR-MuSTI Noise Reduction App	43.002	Direct	NNX11AI72A	<u>97,904</u>
Cross Agency Support:				
USNAS-FNR-MuSTI-Mdl Polymer Nanocom	43.009	Direct	NNX09AM50A	<u>53,994</u>
Total National Aeronautics and Space Administration				<u>2,960,029</u>
National Science Foundation				
No CFDA Number:				
NATIO-NSF-CAREER-Model-Nxt-Gen-Sys	47.unk	Direct	CCF-0643664	53,292
NSF-RSI-Air Snowpack Exch	47.unk	Direct	ARC-0713992	67,262
UNIVE-Microscopy Testing	47.unk	University of Washington - Friday Harbor Labs	UW PO #694077 MTU #100607	(94)
JFDRA-Digital Technology Education	47.unk	J F Drake State Technical College	DPO-1201002 DUE-1205169	15,896
				<u>136,356</u>
Engineering Grants:				
NATIO-MuSTI-CAREER MOLFET	47.041	Direct	ECCS-0643420	34,040
NSF-MTTI-Micrstr Asphalt Mtls	47.041	Direct	CMMI-0701264	29,982
NSF-MuSTI-CAREER: Gas-Liq Interface	47.041	Direct	CBET-0748049	38,528
NSF-ASISC-Ctr Adv SustainIron-Steel	47.041	Direct	IIP-0832427	(1)
NSF-Hands On Ability	47.041	Direct	EEC-0835987	1,689
NSF-CWS1-Mdl-Analyz Water-Grt Lks	47.041	Direct	CMMI-0725636	97,392
NSF-MuSTI-Self Healing Microfibers	47.041	Direct	CMMI-0900582	121,111
NSF-IEM Promote Anions H Storage	47.041	Direct	CBET-0931587	136,385
NSF-MuSTI-Energy Harvstng Nanowires	47.041	Direct	CMMI-0926819	103,090
NSF-APSRC-Fluid Structure Wind Turb	47.041	Direct	CBET-0933058	27,984
NSF-CISSIC-Comp Coop Wideband Spec	47.041	Direct	ECCS-0925881	57,540
NSF-PERC-Comp Distributed Control	47.041	Direct	ECCS-0901094	36,136
NSF-CISSIC Impl Dielectric Metamat	47.041	Direct	ECCS-0968850	95,622
NSF-CWS1-Mod Eval Hydro Micro DNAP	47.041	Direct	CBET-1034700	88,718
NSF-APSRC-FlowPredictionFluctuation	47.041	Direct	CBET-1033591	76,160

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued)				
National Science Foundation (Continued)				
Engineering Grants (Concluded):				
NSF-APSRC-CAREER Fluid Structure	47.041	Direct	CBET-0952218	\$ 27,626
NSF-Meeting NAE Grand Challenge	47.041	Direct	EEC-1024628	41,763
NSF-EAGER-APSRC-Wireless Networks	47.041	Direct	CMMI-1049294	27,771
NSF-Collaborative ISES Study	47.041	Direct	EEC-1025220	58,315
NSF-FNR-BRIGE 1D PdFe Core-pt Shell	47.041	Direct	CBET-1032547	59,273
NSF-CWS1-Cat1:Ecosystem Analysis	47.041	Direct	CBET-1039062	6,073
NSF-CWS-IDR:SustianableWater	47.041	Direct	CBET-1014818	79,255
NSF-SFI-RET-W2W Transp Shonnard	47.041	Direct	EEC-1009617	117,100
NSF-APS-FNR- REU Site Fuel Technolo	47.041	Direct	EEC-1062886	105,099
NSF-SFI Mainshock/Aftershock Seq	47.041	Direct	CMMI-1100423	30,952
NSF-CAREER-ABO Blood DEMos	47.041	Direct	CBET-1041338	111,892
NSF-MuSTI-Fractal Nanoparticles	47.041	Direct	CMMI-1130651	79,399
NSF-BRC-FNR-BRIGE-Membrane Develop	47.041	Direct	CBET-1125585	67,360
NSF-SFI-Biofuels and Bioenergy	47.041	Direct	CBET-1140152	(96,449)
NSF-CISSIC-Near Ground Wireless	47.041	Direct	ECCS-1101843	89,458
NSF-SFI-Enzymatic Hydrolysis Biomas	47.041	Direct	CBET-1138734	15,103
NSF-Making Optics from Scratch	47.041	Direct	ECCS-1202443	29,200
Collaborative Research: Integrated	47.041	Direct	CMMI-1200061	43,083
NSF-IMP-Metal Matrix Composites	47.041	Direct	CMMI-1200038	89,161
NSF-PERC-Physical Power Systems	47.041	Direct	ECCS-1128512	40,592
NSF-IMP-SOLAR ENERGY CONVERSION	47.041	Direct	CBET-1235750	38,122
NSF-SFI-Dust Mitigation	47.041	Direct	CMMI-1234126	21,867
NSF-SFI-Gas Diffusion Electrode	47.041	Direct	CBET-1235982	12,848
NSF-MuSTI-High Voltage Transmission	47.041	Direct	IIP-1238275	11,495
NSF-BRC-Microprinting Equipment	47.041	Direct	CBET-1159763	100,000
NSF-SFI-Electrocatalytic Oxidation	47.041	Direct	CBET-1159448	17,780
NSF-BRC Preferential Hydration	47.041	Direct	CBET-1159425	44,140
NSF-Molecular Scale Spin-Switch	47.041	Direct	ECCS-1249504	30,815
NSF-MUSTI-Intercalation in Cathodes	47.041	Direct	CMMI-1200383	35,579
NSF-MuSTI-Boron Nanotubes	47.041	Direct	IIP-1265116	49,512
NSF-APS-Biocoal for Power	47.041	Direct	IIP-1314114	50,042
NSF-SFI-Aerodynamic Vibration	47.041	Direct	CMMI-1300970	9,926
NSF-MuSTI-On-Chip Gas Generation	47.041	Direct	CBET-1264549	18,001
NSF-BRC-I-Corps: ABO-Rh Bld Identif	47.041	Direct	IIP-1340126	19,931
UNIVE-MuSTI-Liquid Nanotube Compos	47.041	University of Oregon	209041A	38,388
				<u>2,464,848</u>
Mathematical and Physical Sciences:				
NSF-BRC-Photoinitiated Control Nit	47.049	Direct	DMR-0906709	9,303
NSF-IEM-Form Magnetic Domain Evolut	47.049	Direct	DMR-0965081	(7,885)
NSF-IEM-Comp Study Optimizing Micro	47.049	Direct	DMR-0968792	5,127
NSF-Bound & Continuum Properties	47.049	Direct	PHY-0968205	50,711
NSF-EPSSI-HAWC Gamma-Ray	47.049	Direct	PHY-1002445	168,158
NSF-BRC-Purification Synth Peptide	47.049	Direct	CHE-1111192	162,746
NSF-MuSTI-Cellulose Nanocrystals	47.049	Direct	DMR-1100806	84,635
NSF-Sufficient Dimension Reduction	47.049	Direct	DMS-1207651	19,384
NSF-SFI-Hydrocarbon Transportation	47.049	Direct	CHE-1230803	270,883
NSF-MuSTI Functional Boron Nitride	47.049	Direct	DMR-1261910	2,475
				<u>765,537</u>
Geosciences:				
NATIO-RSI-Ozone Photochem	47.050	Direct	ATM-0720955	15,529
NSF-EPSSI-Col Rsh Hygroscopic Aeros	47.050	Direct	ATM-0931505	1,515
NSF-EPSSI-Seismicity Infra High Res	47.050	Direct	EAR-0948526	44,829
NSF-EPSSI-IceNucleiInContactMode	47.050	Direct	AGS-1028998	79,387
NSF-EPSSI-Cloud Turbulence	47.050	Direct	AGS-1026123	140,934
NSF-EPSSI-MRI Dev Multiphase Turb	47.050	Direct	AGS-1039742	55,176
NATIO-EPSSI-Paleomagnetic Investig.	47.050	Direct	EAR-1045406	54,602
NSF-RSI-CAREER Volcano-Seismic	47.050	Direct	EAR-1053794	58,419
NSF-CAREER Flood Risk Projections	47.050	Direct	EAR-1053655	87,831
NSF-Geomagnetic Mafic Dikes India	47.050	Direct	EAR-1112952	54,917
NSF-EPPSI-FREE Tropospheric Aerosol	47.050	Direct	AGS-1110059	162,833
NSF-EPSSI-Physical/Radar Meteor	47.050	Direct	AGS-1119164	89,248
NSF-EPSSI-CAREER-Magnet Fingerprint	47.050	Direct	EAR-1149434	47,429
NSF-EPSSI-VOLCANIC SHOCKWAVES	47.050	Direct	EAR-1250153	86,114
NSF-Mid-Contient Rift System	47.050	Direct	EAR-1148321	3,632
NSF-CWS-South Florida Water	47.050	Direct	EAR-1204474	13,044
NEVAD-EPSSI-MRI Photoacoustic	47.050	Nevada System of Higher Education	663.1085.01 PRIME AGS-1040046	42,190
				<u>1,037,629</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued)				
National Science Foundation (Concluded)				
Computer and Information Science and Engineering:				
NSF-Resp Conduct Rsch Sci & Eng Ed	47.070	Direct	IIS-0832922	\$ 50,715
NSF-GV-Small-Large Data Analysis	47.070	Direct	IIS-1017935	70,625
NSF-Framework for Algorithmic	47.070	Direct	CCF-1116546	59,926
NSF-CCSR-Single Assignment Arch/Com	47.070	Direct	CFF-1116551	40,239
NSF-CCSR-Virtual Environment System	47.070	Direct	CNS-1229297	218,441
				<u>439,946</u>
Biological Sciences:				
NSF-ESC-FFC-Response to Nitrate Dep	47.074	Direct	DEB-0814864	41,526
NSF-ESC-FFC-Yellowstone Wolves	47.074	Direct	DEB-0613730	5,098
NSF-ESC-FFC-Predation Eco System	47.074	Direct	DEB-1019928	73,411
NSF-ESC-FFC-PEATLAND ECOSYSTEMS	47.074	Direct	DEB-1146149	108,815
NSF-BRC-EAGER RNAi Gene Discovery	47.074	Direct	IOS-1219316	93,264
NSF-BRC-EAGER-DNA Synthesis	47.074	Direct	DBI-1225720	127,961
PENNS-FFC-BRC-Stress in Wood	47.074	Pennsylvania State University	4374-MTU-NSF-5974 IOS 1025974	76,456
VIRGI-BRC-Diphospho Triphospho Inos	47.074	Virginia Polytechnic Institute & State University	478501-19959	21,748
				<u>548,279</u>
Social, Behavioral, and Economic Sciences:				
NSF-Doctoral Dissertation Research	47.075	Direct	SES-1123577	5,161
NSF-IMP-Rehydroxylation Ceramic Dat	47.075	Direct	BCS-1112327	1,936
NSF-IMP-Ceramic Rehydroxylation	47.075	Direct	BCS-1219540	5,796
NSF-CAREER-Numeracy & Risk Literacy	47.075	Direct	SES-1253263	6,010
NSF-Self-Regulated Forest Sustain	47.075	Direct	SES-1251932	43,046
				<u>61,949</u>
Education and Human Resources:				
NSF-ILI-Valid Assessment Procedures	47.076	Direct	DUE-0817445	2,716
NSF-BRC-Lab in Biomolecular Chem	47.076	Direct	DUE-0837220	10,131
NSF-First Year IDEAS Modules & Cntr	47.076	Direct	DUE-0836861	28,723
NSF-EPSSI-Cyber Volcano Hazards Mod	47.076	Direct	DRL-0940883	90,998
NSF-Digital Logic Design Collab.	47.076	Direct	DUE-1003389	92,520
NSF-Learning Through EFELTS	47.076	Direct	DUE-1023022	79,735
NSF-CAREER Math Moments Instru	47.076	Direct	DRL-1052958	60,765
NSF-ILI-Ethical Reasoning & Climate	47.076	Direct	DUE-1122390	3,260
NSF-Teaching IT Security	47.076	Direct	DUE-1140308	32,545
NSF-Modern Cryptography	47.076	Direct	DUE-1140512	84,363
NSF-Theory of Productive Math Use	47.076	Direct	DRL-1220357	15,621
UNIVE-Revisiting the Future	47.076	University of Central Florida	64016228 PO#191200	25,732
				<u>527,109</u>
Polar Programs:				
NSF-Measuring Nitrogen Oxide GEO	47.078	Direct	ARC-1107398	88,178
NSF - Clean Snowmobile Challenge	47.078	Direct	ARC-1062619	6,550
				<u>94,728</u>
International Science and Engineering (OISE):				
NSF-RSI-Remte Sen Pac Lat Amer	47.079	Direct	OISE-0530109	157,557
NSF-EPSSI-Volcanic Hazards	47.079	Direct	OISE-1036265	47
NSF-SFI-FNR-U.S./Aust Coll Research	47.079	Direct	OISE-1050443	17,655
NSF-APS China Workshop and Planning	47.079	Direct	OISE-1157647	13,907
NSF-SFI-Impact of Climate Change	47.079	Direct	OISE-1160097	26,379
NSF-SFI-Bioenergy Development	47.079	Direct	OISE-1243444	209,810
NSF-Pan-American Advanced Study	47.079	Direct	OISE-1242257	17,816
USCIV-Geohazard Landslides Model	47.079	US Civilian Research & Development Foundation	UKG1-9203-DP-11	123
				<u>443,294</u>
Office of Cyberinfrastructure:				
NSF-CWS-Environmental CyberCitizens	47.080	Direct	OCI-1135523	57,398
ARRA- Trans-NSF Recovery Act Research Support:				
NSF-SFI-ARRA-Public Health Tanzania	47.082	Direct	OISE-0854050	8,501
NSF-MTTI-ARRA-Frost Damage Concrete	47.082	Direct	CMMI-0900015	50,052
NSF-ARRA-Weaving Threads of Sustain	47.082	Direct	EEC-0935088	27,446
NSF-FFC-ESC-ARRA LTREB Wolf-Moose	47.082	Direct	DEB-0918247	107,659
NSF-IMP-ARRA-Activation Spillover	47.082	Direct	CBET-0929207	1,455
NSF-MTTI-ARRA EAGER E-Waste Asphalt	47.082	Direct	CMMI-0936726	2,801
NSF-CNLM-ARRA Sustain Fuel Lactose	47.082	Direct	CBET-0933017	142,996
UNIVE-ARRA-Turbulent Flames	47.082	University of California at Davis	08-003989-01	1,913
				<u>342,823</u>
Total National Science Foundation				<u>6,919,896</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY
Schedule of Expenditures of Federal Awards
 For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued)				
U.S. Environmental Protection Agency				
No CFDA Number:				
HOUGH-ESC-Hills Creek	66.unk	Houghton-Keweenaw Conservation District	AWARD #1107016	\$ 11,200
Regional Wetland Program Development Grants:				
MICHI-Approach for Vernal Pools	66.461	Michigan State University	MSU #RC069697-MTU	14,711
Great Lakes Program:				
USENV-FFC-ESC-Restore Peatlands	66.469	Direct	GL-00E00472-0	54,125
USENV-Wetland Map Protocol	66.469	Direct	GL-00E00559-0	242,525
USENV-Cladophora Monitoring	66.469	Direct	GL-00E00561-0	60,765
USENV-CWS1-Predicting Eco Changes	66.469	Direct	GL-00E00560-0	122,166
USENV-Algal Bloom Mapping Great Lks	66.469	Direct	GL-00E00855-0	125,702
GREAT-Tributary Monitoring & Lamp	66.469	Great Lake Observing System	EPA-636-01	47,980
				653,263
Science To Achieve Results (STAR) Research Program:				
USENV-RSI-Impacts Land Use Land Cov	66.509	Direct	RD-83428601-0	113,861
USENV-Extreme Event Impacts	66.509	Direct	RD-83518901-0	36,231
				150,092
National Student Design Competition for Sustainability:				
USENV-Useful Aluminum Waste	66.516	Direct	SU-83532401-0	11,483
USENV - Healthier Cooking Env	66.516	Direct	SU-83531501-0	11,303
				22,786
Total U.S. Environmental Protection Agency				852,052
U.S. Department of Energy				
No CFDA Number:				
NATIO-APS-E15 Fuel Snowmobile En	81.unk	National Renewable Energy Laboratory	AXH-0-40493-01	(139)
ARGON-TEM Battery Materials	81.unk	Argonne National Laboratory	SUBCONTRACT NO. 1F-30581	484
SANDI-PERC-FNR-Microgrid Model	81.unk	Sandia National Laboratories	PO #1103234	118,460
ARGON - Experimental Engine Testing	81.unk	Argonne National Laboratory	1F-32523	11,184
ARGON - Segmented PEFC	81.unk	Argonne National Laboratory	2F-30081	3,277
SANDI-PERC-Application toMicrogrids	81.unk	Sandia National Laboratories	PO 1186206	254,575
ARGON-Marine Engines Fuel	81.unk	Argonne National Laboratory	2F-31621 DE-AC02-06CH11357	18,613
UCHIC-Advanced Vehicle Characteriz	81.unk	UChicago Argonne LLC	2F-32041	70,397
CH2MW-IMP-FNR-Principle Testing	81.unk	CH2M-WG Idaho LLC	SUBCONTRACT #754608	20,993
LANZA-SFI-Life Cycle Assess	81.unk	LanzaTech Inc	DOE DE-FOA-0000467	13,037
GASTE-SFI-Hydropyrolysis Integrated	81.unk	Gas Technology Institute	PRIME #DE-EE0005992	3,085
UCHIC-IMP-Computational Modeling	81.unk	UChicago Argonne LLC	3F-31541	1,448
SANDI-MIMC-FNR-Agent Based	81.unk	Sandia National Laboratories	PURCHASE ORDER 1328983	34,140
				549,554
Office of Science Financial Assistance Program:				
USENE-MuSTI/Hetero-Junctions Boron	81.049	Direct	DE-FG02-06ER46294 A001, A002	29,243
USENE-ESC-Forest Atmosphere Carbon	81.049	Direct	DE-FG02-95ER62125-AMD A019	443,212
USENE-EPSSI-Yr15-High Energy	81.049	Direct	DE-FG02-99ER41107-AMD A008	267,350
USENE-ESC Midwest Center Climate	81.049	Direct	DE-FC02-06ER64158 A005	37,009
USENE-ESC-Climate Chge Rsrch	81.049	Direct	DE-FC02-06ER64158	(62)
USENE-ESC-FFC-Midwest Center NICCR	81.049	Direct	DE-FC02-06ER64158 AMEND #A005	70,940
USENE-IEM-Behavior Ferroelect Matls	81.049	Direct	DE-SC0002196	63,125
USENE-EPSSI-Contact Freezing	81.049	Direct	DE-SC0006949	133,061
USENE-EPSSI-Tropospheric Aerosols	81.049	Direct	DE-SC0006941	213,572
USENE-ESC-FFC-Wood Carbon Pools	81.049	Direct	DE-SC0006986	65,140
USENE-BRC-Genes Affect Wood Biomass	81.049	Direct	DE-SC0008462	211,644
USENE-EPSSI-Atmospheric Transport	81.049	Direct	DE-SC0010019	11,236
COLOR-EPSSI-North Hem P Auger Co	81.049	Colorado State University	G-0113-1 P2	30,405
MARSH-MuSTI-Nano Phase 1	81.049	Marshall University Research Corporation	2010-001/210079 PO#RC-P1101336	(14,065)
MARSH-MuSTI-Nano Systems-Phase 2	81.049	Marshall University Research Corporation	2010-001/210079 PO #P1201595	153,775
UNIVE-ESC-FFC-Carbon Water Cycling	81.049	University of Colorado-Boulder	1548803	8,993
				1,724,578
Renewable Energy Research and Development:				
THREE-APSRC-Low Cost Membrane	81.087	3M Company	SUBAWARD #USMMM7X38T	217,690
BALLA-APSRC-Microstructural	81.087	Ballard Power Systems	BMP/MTU AGRMT DATED 5/7/10	36,452
Advanced Gasoline Turbocharged Dire	81.087	Ford Motor Corp - Ford Rsch & Adv Eng	FORD PO# A 10 PO11 159794	368,127
				622,269

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY
Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Continued)				
U.S. Department of Energy (Concluded)				
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis: USENE-APS-Exp Studies DPF & SCR Mdl	81.117	Direct	DE-EE0000204	\$ 235,250
Advanced Research Projects Agency Energy Assistance Program: RELIN-MuSTI-Pressure Tanks	81.135	REL Inc	1208008 PRIME DE-AR0000253	47,284
Total U.S. Department of Energy				3,178,935
U.S. Department of Education				
No CFDA Number:				
UNIVE-Learning Construction Manage	84.unk	University of Nebraska - Lincoln	24-1122-001-002	36,236
Fund for the Improvement of Postsecondary Education: NORTH-BRC-FFC-Transatl Grad Degree	84.116	North Carolina State University	2008-1905-01	18,235
USEDU-EPSSI-Yr 1-INVOGE Program	84.116J	Direct	P116J090031-ACTION NO. 01	33,996
				52,231
Total U.S. Department of Education				88,467
National Archives and Records Administration				
National Historical Publications and Records Grants: NATIO-Extract Buried Treasure	89.003	Direct	NAR11-RP-50064-11	59,897
U.S. Department of Health and Human Services				
No CFDA Number:				
CENTE-NIOSH Mining Bit Instrument	93.unk	Direct	NIOSH # 254-2012-M-51076	7,860
CLEVE-Evaluate SARA EEG Electrodes	93.unk	Cleveland Medical Devices Inc	PRIME #2R44N5053116-02A1	4,307
				12,167
Human Genome Research:				
NIH-BRC-Family Based Association	93.172	Direct	1 R03 HG006155-01A1	54,909
National Center on Sleep Disorders Research:				
UNIVE-Sleep Disordered Breathing	93.233	University of Michigan	SUBAWARD #3002300214	21,430
UNIVE-Slp Disorder Breathing Chldrn	93.233	University of Michigan	SUBCONTRACT #F011919 AMD 5	(15)
				21,415
Discovery and Applied Research for Technological Innovations to Improve Human Health:				
NIH-BRC-Vivo Map in Knee Orthroplax	93.286	Direct	1 R03 EB009806-01A1	46,370
NIH-ILI-Cardiac Annunciator	93.286	Direct	1 R03 EB014844-01	47,479
NIH-BRC-Novel Nano-Mechanical	93.286	Direct	1 R03 EB014504-01A1	68,666
				162,515
Cancer Biology Research:				
NIH-Targeting Integrin Tumor Cells	93.396	Direct	1 R15 CA152828-01	115,397
ARRA-Trans-NIH Recovery Act Research Support:				
NIH-ARRA-Impacts Wildfire Part Emis	93.701	Direct	1 RC1 ES018612-01	25,197
NIH-BRC-ARRA-Meniscal Horn Attach	93.701	Direct	2 R15 AR051906-02A2	4,529
				29,726
Cardiovascular Diseases Research:				
NIH-BRC-Sleep Deprivation Neuro Con	93.837	Direct	1 R21 HL098676-01	13,441
NIH-BRC-Lymphatic Collecting	93.837	Direct	1 R15 HL113954-01	228,689
				242,130
Biomedical Research and Research Training:				
NIH-BRC-Enhance Barcode Readability	93.859	Direct	1 R15 GM088795-01	92,358
NIH-BRC-Centrosome Assembly	93.859	Direct	1 R15 GM101633-01	105,094
NIH-BRC-Biomimetic Tissue Adhesive	93.859	Direct	1 R15 GM104846-01	29,974
				227,426

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY
Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Research and Development Cluster (Concluded)				
U.S. Department of Health and Human Services (Concluded)				
Child Health and Human Development Extramural Research:				
NIH-BRC-Treat-Screen Gamma-Hydrox	93.865	Direct	5 R01 HD058553-03	\$ 98,787
NIH-Net Migration Estimates	93.865	Direct	7R03HD069737-02	107,779
MAYOM-MuSTI-Intramuscular Pressure	93.865	Mayo Clinic Rochester	2R01HD031476-11A1	17,240
				<u>223,806</u>
Total U.S. Department of Health and Human Services				<u>1,089,491</u>
U.S. Agency for International Development				
No CFDA Number:				
HIGHE-CWS1-Chiapas Oaxaca	98.unk	Higher Education For Development	SUB COOP AGMT DTD 2/16/09	6,921
Total Research and Development Cluster				<u>32,085,703</u>
Other Programs:				
U.S. Department of Agriculture				
No CFDA Number:				
USFOR-ESC-FFC-Sustain Forest Mgmt	10.unk	Direct	FS #08-CR-11242306-089 MOD 1	122,542
USAGR-Silviculture Program	10.unk	Direct	AG-56A1-C-12-0001	43,379
USAGR-FFC-Below Grnd Ecosystem	10.unk	Direct	08-JV-11242306-064	13,594
USAGR-ESC-FFC-Distgd Ecologist Lect	10.unk	Direct	08-CS-11242306-106	2,500
USAGR-ESC-FFC-Climate Chnge Science	10.unk	Direct	09-PA-11242306-142	203,406
USAGR-FFC-ESC-Silviculture Prg 2012	10.unk	Direct	LETTER DATED 3/06/2012	10,990
USFOR-FFC-ESC-Silviculture 7 2013	10.unk	Direct	LETTER DATE 2/04/2013	73,751
USAGR-ESC-FFC-Ed/Outrch Climate Chg	10.unk	Direct	11-CR-11242306-124	18,238
				<u>488,400</u>
Child and Adult Care Food Program	10.558	Michigan Dept of Education	-n/a-	11,086
Forestry Research:				
USAGR-ESC-FFC-Climate Change Silvi	10.652	Direct	11-CA-11330124-051	63,509
Cooperative Forestry Assistance:				
USAGR-SFI-Develop Forest Stewards	10.664	Direct	11-DG-11420004-234	26,454
Total U.S. Department of Agriculture				<u>589,449</u>
U.S. Department of Commerce				
No CFDA Number:				
UPPCO Building Renovations	11.unk	Direct	-n/a-	(156,687)
U.S. Department of Defense				
No CFDA Number:				
USARM-MTTI-FNR-RoadSoft Culvrt 2012	12.unk	Direct	W911XK-12-C-0001	(3,375)
USARM-APS-High Impact STEM Outreach	12.unk	Direct	PO V100027W	6,380
TECHN-MTU UNITE/Summer Youth Progra	12.unk	Technology Student Association	AWARD LETTER DATED 3/20/2012	30,000
TECHN-UNIVE/Summer Youth Program	12.unk	Technology Student Association	AWARD LETTER DATED 2/24/13	1,500
Total U.S. Department of Defense				<u>34,505</u>
U.S. Department of Interior				
No CFDA Number:				
USPAR-ESC-FFC-Isle Roy Inst Support	15.unk	Direct	TASK AGRMT NO P09AC00199	14,697
USBUR-IPA Assignment J Payne	15.unk	Direct	IPA ASSIGNMENT DATED 3/7/13	76,773
Total U.S. Department of Interior				<u>91,470</u>
U.S. Department of Labor				
Mine Health and Safety Grants:				
USLAB-FY12 Mine Safety	17.600	Direct	MS-23049-12-55-R-26	212,122
ARRA- Program of Competitive Grants for Worker Training and Placement in High Growth and Emerging Industry Sectors:				
ARRA- State Energy Sector Program Advanced Energy Stora	17.275	Macomb/St. Clair Workforce Development Board	10-205-01	26,832
Total U.S. Department of Labor				<u>238,954</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Other Programs (Continued):				
U.S. Department of Transportation				
No CFDA Number:				
MITRA-MTTI-TDG-Roadsoft 2012	20.unk	Michigan Dept of Transportation	2010-0468 AUTHORIZATION Z7	\$ 334,098
MITRA-MTTI-Training Electd Official	20.unk	Michigan Dept of Transportation	2010-0470 AUTH Z2 JOB 111377	19,538
MITRA-MTTI-Hwy Safety Manuals	20.unk	Michigan Dept of Transportation	2010-0470 AUTH Z4 JOB 111387	43,270
MITRA-MTTI-MERL 2012	20.unk	Michigan Dept of Transportation	2011-0063 AUTH 2 JOB 115071	32,056
MITRA-Natl Summer Trans Inst 2012	20.unk	Michigan Dept of Transportation	CONTRACT NO. 2012-0454	65,000
LTAP 2013	20.unk	Michigan Dept of Transportation	2010-0470 AUTH Z5 ,Z6, Z7	332,836
MITRA-MTTI-MERL 2013	20.unk	Michigan Dept of Transportation	2011-0063 AUTH 3	30,069
UNIVE-CWS1-Superior GL Maritime	20.unk	University of Wisconsin-Superior	DTMA1G10001	17,708
				<u>874,575</u>
Highway Research and Development Program:				
USTRA-MTTI-MI Tribal Technical Asst	20.200	Direct	DTFH61-09-H-00001	<u>328,737</u>
Highway Training and Education:				
USTRA-ESC-K Juneau Fellowship	20.215	Direct	DTFH64-12-G-00033	<u>5,000</u>
University Transportation Centers Program:				
UNIVE-CWS1-Madison GL Maritime	20.701	University of Wisconsin-Madison	28OKO11	8,135
UNIVE-21st Century Education	20.701	University of Wisconsin-Madison	AGREEMENT #394K026	22,683
				<u>30,818</u>
Total U.S. Department of Transportation				<u>1,239,130</u>
National Aeronautics and Space Administration				
No CFDA Number:				
USNAS-FNR-A Willemsen Fellowship	43.unk	Direct	NNX09AI91H	1,480
UNIVE-MSGC-Human Climate Charact	43.unk	University of Michigan	CHECK #2214175	2,068
UNIVE-MSGC-Geology Field Trip	43.unk	University of Michigan	CHECK #2491144	4,599
UNIVE-MSGC-Administrative FY12	43.unk	University of Michigan	CHECK #2491144	61
UNIVE-MSGC-Explore Cloud Microphysi	43.unk	University of Michigan	CHECK #2751149	3,568
UNIVE-IMP-MSGC-Copper Nanoparticles	43.unk	University of Michigan	CHECK #2751149	2,500
UNIVE-MSGC-Boron Nanotubes CVD	43.unk	University of Michigan	CHECK #2751149	1,416
UNIVE-IMP-MSGC-Multi Vermiculite	43.unk	University of Michigan	CHECK #2751149	2,500
UNIVE-MSGC-Adaptive Structure	43.unk	University of Michigan	CHECK #2751149	2,500
UNIVE-MSGC-Earthquake Damage	43.unk	University of Michigan	CHECK #2751149	2,657
UNIVE-FFC-MSGC-Mercury Movement	43.unk	University of Michigan	CHECK #2751149	5,000
UNIVE-MSGC- Celebrate Lake Superior	43.unk	University of Michigan	CHECK #2751150	5,000
UNIVE-MSGC-STEM Road Show	43.unk	University of Michigan	CHECK #2751150	5,000
UNIVE-MSGC-U.P. State Fair	43.unk	University of Michigan	CHECK #2751150	9,478
UNIVE-IMP-MSGC-Magnesium	43.unk	University of Michigan	CHECK #2751149	2,892
UNIVE-MSGC-Volcanic Hazard Monitor	43.unk	University of Michigan	CHECK #2751149	2,917
UNIVE-MSGC-Field Training Teachers	43.unk	University of Michigan	CHECK #2751150	8,200
UNIVE-MTTI-MSGC-Ewaste Improve	43.unk	University of Michigan	CHECK #2751149	5,531
UNIVE-MSGC-Great Lakes Teacher Inst	43.unk	University of Michigan	CHECK #2751150	4,730
UNIVE-MSGC-Outdoor Science Investig	43.unk	University of Michigan	CHECK #2751150	5,000
UNIVE-MSGC-Graphene/Epoxy Composite	43.unk	University of Michigan	CHECK#2993583	530
UNIVE-MSGC-Corrosion/Bioabsorb Matl	43.unk	University of Michigan	CHECK#2993583	80
UNIVE-FNR-MSGC-Rocketry System	43.unk	University of Michigan	CHECK #2993583	2,015
UNIVE-MSGC-Calibrate Satellite Algo	43.unk	University of Michigan	CHECK #2751149	2,030
UNIVE-MSGC-FY13 Administrative	43.unk	University of Michigan	CHECK #2751150	3,043
UNIVE-ILI-MSGC-Underwater ROV STEM	43.unk	University of Michigan	CHECK #2751150	10,000
UNIVE-MSGC-Native American Involvmnt	43.unk	University of Michigan	CHECK#2993583	1,695
UNIVE-MSGC-Modulat Neuron Behaviors	43.unk	University of Michigan	CHECK#2993583	500
UNIVE-MSGC-Temporal Velocity Change	43.unk	University of Michigan	CHECK#2993583	5,000
UNIVE-MSGC-Monitor DNA Methylation	43.unk	University of Michigan	CHECK#2993583	1,260
UNIVE-MSGC-Martian Hydro Cycle	43.unk	University of Michigan	CHECK #2993583	746
UNIVE-MSGC-Volcanic Hazard Monitorg	43.unk	University of Michigan	CHECK#2993583	1,774
UNIVE-MSGC-Cloud Microphysics/Lab	43.unk	University of Michigan	CHECK#2993583	8
UNIVE-MSGC-Antimicrobial Polymeric	43.unk	University of Michigan	CHECK#2993583	805
				<u>106,583</u>

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY
Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Other Programs (Continued):				
National Aeronautics and Space Administration (Concluded)				
Science:				
USNAS-FNR-Mixed Phased Cloud	43.001	Direct	NNX12AN91H	\$ 27,859
USNAS-Ice Nucleation Study China	43.001	Direct	NNX12AN97H	26,487
				<u>54,346</u>
Total National Aeronautics and Space Administration				<u>160,929</u>
National Endowment for the Humanities				
Promotion of the Arts Partnership Agreements:				
The Acting Company	45.025	Michigan Council for Arts and Cultural Affairs	13OP0220PS	4,842
The Royal Drummers of Burundi	45.025	Arts Midwest	FY13-170438	2,600
				<u>7,442</u>
Promotion of the Humanities Federal/State Partnership:				
MICHI-1913 Michigan Copper Strike	45.129	Michigan Humanities Council	GRANT NO. 2893	12,895
Total National Endowment for the Humanities				<u>20,337</u>
National Science Foundation				
No CFDA Number:				
NSF-IPA Assignment P Murthy	47.unk	Direct	DGE-1261336	132,405
NSF - IPA Assignment	47.unk	Direct	ECCS-1212464	247,893
Ford Center Ecological Research	47.unk	Direct	-n/a-	74,652
				<u>454,950</u>
Engineering Grants:				
NSF-SFI-Biofuels and Bioenergy	47.041	Direct	CBET-1140152	263,124
Geosciences:				
NSF-Ethics Education 2.0	47.050	Direct	GEO-0933026	60,792
National Science Foundation:				
NSF B. Tymrak Fellowship	47.073	Direct	DGE-1051031	39,500
Education and Human Resources:				
NSF-ILI-High School Enterprise	47.076	Direct	DRL-0833542	281,320
NSF-EPSSI MITEP: Improving Earth	47.076	Direct	DUE-0831948	851,676
NSF-PERC-K Bunker - Fellowship	47.076	Direct	DGE-1051031	42,000
NSF-FNR-MTU SSEED Support4EngDegree	47.076	Direct	DUE-0965996	138,300
NSF-E. ADV ACCT Petushek Fellowship	47.076	Direct	DGE-1051031 AMEND NO 002	46,881
NSF-M. Hopkins Fellowship	47.076	Direct	DGE-1051031, AMEND NO 003	40,778
NSF-J Fuller Fellowship	47.076	Direct	DGE-1051031 AMEND NO 004	39,500
NSF-ADV ACCT-D Cerninaro Fellowship	47.076	Direct	ADVANCE ACCOUNT	8,609
UNIVE-Enrich AGEF Alliance	47.076	University of Michigan	3001959810	18,882
STEVE-ENGAGE E3s Engineering Studen	47.076	Stevens Institute of Technology	LETTER OF AGRMT DATED 3/22/13	1,383
				<u>1,469,329</u>
International Science and Engineering (OISE):				
NSF-MTTI US Mal Col Rsh Micro Stone	47.079	Direct	OISE-0929619	5,674
ARRA- Trans-NSF Recovery Act Research Support:				
NSF-ARRA-FNR-CWS1-GK12-Huckins	47.082	Direct	DGE-0841073	618,578
NSF-FNR-ARRA-R Noyce Teacher Scholr	47.082	Direct	DUE-0934763	182,895
				<u>801,473</u>
Total National Science Foundation				<u>3,094,842</u>
Small Business Administration				
Small Business Development Centers:				
SIXCO-Small Business Tech Dev	59.037	Six County Employment Alliance-Region 1	CONTRACT AGREEMENT	23,595
U.S. Environmental Protection Agency				
Nonpoint Source Implementation Grants:				
MIDEQ-FFC-Forest H2O Qlty,Mgmt Demo	66.460	Michigan Dept of Environmental Quality	PROJECT #2008-0008	8,931

continued...

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Expenditures of Federal Awards

For the Year Ended June 30, 2013

Federal Agency / Cluster / Program Title	CFDA Number	Passed Through	Pass-through / Grantor Number	Federal Expenditures
Other Programs (Concluded):				
U.S. Department of Energy				
ARRA- Conservation Research and Development:				
USENE-APS-ARRA-Ed-Outrch Trans Elec	81.086	Direct	DE-EE0002493	\$ 441,631
U.S. Department of Education				
Fund for the Improvement of Postsecondary Education				
NORTH-Brazil Higher Educ Consortium	84.116	North Dakota State Universtiy	SUBCONTRACT #12913	758
Fund for the Improvement of Postsecondary Education				
USEDU-CWS1-Yr1-SusR Project	84.116N	Direct	P116N080002	71,132
Graduate Assistance in Areas of National Need:				
USEDU-ASISC-FNR-GAANN: Chem Eng Flw	84.200	Direct	P200A090124	120,487
Gaining Early Awareness and Readiness for Undergraduate Programs:				
GEARUP 2012	84.334	Michigan Dept of Labor & Economic Growth	GRANT #11-00-07	17,335
GEARUP 2013	84.334	Michigan Dept of Labor & Economic Growth	GRT#12-00-07	27,684
				45,019
ARRA - Statewide Longitudinal Data Systems	84.372A	Center for Educational Performance and Information	-n/a-	6,559
Total U.S. Department of Education				243,955
Total Other Programs				6,031,041
Total Expenditures of Federal Awards				\$ 75,248,860
				concluded

See notes to schedule of expenditures of federal awards.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards

1. BASIS OF PRESENTATION

The accompanying schedule of expenditures of federal awards (the "Schedule") includes the federal grant activity of Michigan Technological University (the "University") under programs of the federal government for the year ended June 30, 2013. The information in this schedule is presented in accordance with the requirements of the Office of Management and Budget (OMB) Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Because the schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the financial position, changes in net position or cash flows of the University.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Expenditures reported on the Schedule are reported on the accrual basis of accounting, which is described in Note 1 to the University's financial statements. Such expenditures are recognized following the cost principles contained in OMB Circular A-21, *Cost Principles for Educational Institutions*, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. Pass-through entity identifying numbers are presented where available.

3. SUBRECIPIENTS

The University administers certain federal awards programs through subrecipients. Those subrecipients are not considered part of the University's reporting entity. Of the federal expenditures presented in the Schedule, the University provided federal awards to subrecipients as follows:

Program Title	CFDA Number	Amount Provided to Subrecipients
Coastal Zone Management Administration Awards	11.419	\$ 2,000
Department of Defense	12.unk	1,098,809
Basic and Applied Scientific Research	12.300	52,822
ARRA- Environmental Quality and Protection Resource Management	15.236	81,121
Department of Transportation	20.unk	113,555
University Transportation Centers Program	20.701	17,492
Transportation Planning, Research and Education	20.931	101,766
National Aeronautics and Space Administration	43.unk	322,512
Science	43.001	96,127
Engineering Grants	47.041	98,047
Mathematical and Physical Sciences	47.049	20,255
Geosciences	47.050	12,303
Education and Human Resources	47.076	292,455
ARRA- Trans-NSF- Recovery Act Research Support	47.082	146,595
Small Business Development Centers	59.037	13,084
Great Lakes Program	66.469	74,302
Office of Science Financial Assistance Program	81.049	487,116

MICHIGAN TECHNOLOGICAL UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards

Program Title	CFDA Number	Amount Provided to Subrecipients
Fund for the Improvement of Postsecondary Education	84.116	\$ 48,769
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	1,847
AARA-Trans-NIH Recovery Act Research Support	93.701	1,009
Child Health and Human Development Extramural Research	93.865	150,881
U.S. Agency for International Development	98.unk	4,791
Total provided to subrecipients		<u><u>\$ 3,237,658</u></u>

■ ■ ■ ■ ■

This page intentionally left blank.

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN
ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

December 12, 2013

Board of Control
Michigan Technological University
Houghton, Michigan

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of **Michigan Technological University** (the "University"), as of and for the year ended June 30, 2013, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated December 12, 2013.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

**INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR
EACH MAJOR FEDERAL PROGRAM AND ON INTERNAL CONTROL
OVER COMPLIANCE REQUIRED BY OMB CIRCULAR A-133**

December 12, 2013

Board of Control
Michigan Technological University
Houghton, Michigan

Report on Compliance for Each Major Federal Program

We have audited the compliance of ***Michigan Technological University*** (the "University") with the types of compliance requirements described in the *OMB Circular A-133 Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2013. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on Each Major Federal Program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2013.

Report on Internal Control Over Compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Purpose of this Report

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Findings and Questioned Costs

For the Year Ended June 30, 2013

SECTION I - SUMMARY OF AUDITORS' RESULTS

Financial Statements

Type of auditors' report issued: Unmodified

Internal control over financial reporting:

Material weakness(es) identified? yes X no

Significant deficiency(ies) identified? yes X none reported

Noncompliance material to financial statements noted? yes X no

Federal Awards

Internal control over major programs:

Material weakness(es) identified? yes X no

Significant deficiency(ies) identified? yes X none reported

Type of auditors' report issued on compliance for major programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with Circular A-133, Section 510(a)? yes X no

Identification of major programs:

CFDA Number

84.007, 84.033, 84.038, 84.268, 84.063
Various

Name of Federal Program or Cluster

Student Financial Assistance Cluster
Research and Development Cluster

Dollar threshold used to distinguish between Type A and Type B programs: \$ 2,257,466

Auditee qualified as low-risk auditee? X yes no

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Findings and Questioned Costs

For the Year Ended June 30, 2013

SECTION II - FINANCIAL STATEMENT FINDINGS

None reported.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Schedule of Findings and Questioned Costs

For the Year Ended June 30, 2013

SECTION III - FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

None reported.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Summary Schedule of Prior Audit Findings

For the Year Ended June 30, 2013

None reported.

■ ■ ■ ■ ■