Formal Session of the Board of Trustees
December 15, 2023
9:00 a.m. – 11:00 a.m.
Location: MUB Ballroom B
Public Meeting

I Call to Order
Jeffrey Littmann, Chair

II. Roll Call
Sarah Schulte, Secretary

III. Confirm Agenda
Jeffrey Littmann, Chair

IV. Opening Remarks
A. Opening Remarks of the Board Chair
   Jeffrey Littmann, Chair
B. Opening Remarks of the University President
   Richard Koubek, President

V. Public Comment Period

VI. Committee Reports
A. Academic Affairs Committee
   John Bacon, Committee Chair
B. Audit and Finance Committee
   Andrea Dickson, Committee Chair
C. Leadership Committee
   Jon Jipping, Committee Chair

VII. Consent Agenda
A. Approval of Minutes
B. Resignations, Retirements, and Off-Payroll
C. Funding Productivity Report
 VIII. Action and Discussion Items

A. Emeritus Rank
   Andrew Storer, Provost and Senior Vice President for Academic Affairs

B. Election of Board of Trustees Chair and Vice Chair
   Jeffrey Littmann, Chair

IX. Reports

A. Faculty Presentation: Great Lakes Buoy Network
   Jamey Anderson, Assistant Director, Marine Operations, Great Lakes Research Center

B. Faculty Presentation: TBD
   Gordon Parker, John and Cathi Drake Endowed Chair in Mechanical Engineering

C. Treasurer’s Report
   Nicholas Stevens, Treasurer

D. University Research and Sponsored Programs Report
   David Reed, Vice President for Research

E. Undergraduate Student Government
   Mason Krause, President

F. Graduate Student Government
   Karlee Westrem, President

G. University Senate
   Robert Hutchinson, President

X. Informational Items

A. Analysis of Investments

B. Research & Sponsored Programs

C. Advancement & Alumni Relations

D. Media Coverage

E. Employee Safety Statistics

F. Disposal of Surplus Property

XI. Other Business

XII. Date for Next Formal Meeting: February, 23, 2024

XIII. Adjourn
VII. Consent Agenda

A. Approval of Minutes

B. Resignations, Retirements, and Off-Payroll
# BOARD OF TRUSTEES OFF-PAYROLL REPORT
(September 17, 2023 – November 25, 2023)

## RETIRED

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Most Recent Hire Date</th>
<th>Term Date</th>
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</thead>
<tbody>
<tr>
<td>Tony Rogers</td>
<td>FF</td>
<td>Chemical Engineering</td>
<td>Associate Professor</td>
<td>08/30/1993</td>
<td>09/22/2023</td>
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</tbody>
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## OFF-PAYROLL

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Most Recent Hire Date</th>
<th>Term Date</th>
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</thead>
<tbody>
<tr>
<td>Beth Fredianelli</td>
<td>AF</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>09/05/2023</td>
<td>09/16/2023</td>
</tr>
<tr>
<td>Joel Tuoriniemi</td>
<td>FC</td>
<td>College of Business</td>
<td>Professor of Practice</td>
<td>08/18/2014</td>
<td>09/19/2023</td>
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<tr>
<td>Benny Garbacz</td>
<td>AF</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>02/22/2021</td>
<td>09/25/2023</td>
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<tr>
<td>Michael Porter</td>
<td>AF</td>
<td>Wadsworth Hall Food Service</td>
<td>Baker</td>
<td>09/19/2011</td>
<td>09/25/2023</td>
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<tr>
<td>Kevin Folk</td>
<td>UF</td>
<td>Graduate School</td>
<td>Administrative Aide</td>
<td>06/26/2023</td>
<td>09/29/2023</td>
</tr>
<tr>
<td>Tina Barker</td>
<td>AF</td>
<td>Wadsworth Hall Food Service</td>
<td>Food Service Helper</td>
<td>09/05/2023</td>
<td>09/30/2023</td>
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<tr>
<td>Amanda Clouthier</td>
<td>AP</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>03/06/2023</td>
<td>10/09/2023</td>
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<tr>
<td>Chelsea Archambeau</td>
<td>UP</td>
<td>Information Technology</td>
<td>Senior Office Assistant</td>
<td>11/28/2022</td>
<td>10/12/2023</td>
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<tr>
<td>Shaun Archambeau</td>
<td>AF</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>11/02/2020</td>
<td>10/13/2023</td>
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<tr>
<td>Brian Agen</td>
<td>NF</td>
<td>Telecommunications</td>
<td>Telecommunications Technician</td>
<td>11/20/2017</td>
<td>10/13/2023</td>
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<tr>
<td>Angelica Hebert</td>
<td>PF</td>
<td>Information Technology Operations</td>
<td>Information Technology Support Coordinator</td>
<td>07/25/2011</td>
<td>10/20/2023</td>
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<tr>
<td>Thomas Cogswell</td>
<td>PF</td>
<td>College of Computing</td>
<td>College Coordinator</td>
<td>10/23/2017</td>
<td>10/23/2023</td>
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<tr>
<td>Ricky Greub</td>
<td>PF</td>
<td>Sponsored Programs Accounting</td>
<td>Assistant Sponsored Programs Accountant</td>
<td>06/14/2021</td>
<td>10/29/2023</td>
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<tr>
<td>Tammy Hodson</td>
<td>PF</td>
<td>Center for Technology &amp; Training</td>
<td>Business/Training Support Specialist</td>
<td>03/09/2020</td>
<td>10/29/2023</td>
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<tr>
<td>Victoria Mazur</td>
<td>UF</td>
<td>Human Resources</td>
<td>Senior Office Assistant</td>
<td>06/26/2023</td>
<td>11/03/2023</td>
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<tr>
<td>Christopher Roby</td>
<td>AF</td>
<td>Wadsworth Hall Food Service</td>
<td>Food Service Helper</td>
<td>10/02/2023</td>
<td>11/06/2023</td>
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<td>Thomas Freeman</td>
<td>PF</td>
<td>Jackson Center for Teaching &amp; Learning</td>
<td>Senior Instructional Designer</td>
<td>03/11/2002</td>
<td>11/10/2023</td>
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<tr>
<td>Jared Johnson</td>
<td>PF</td>
<td>Athletic/Recreation Complex Operations</td>
<td>Director of the Outdoor Adventure Program</td>
<td>04/30/2012</td>
<td>11/10/2023</td>
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<tr>
<td>Karma Kilpela</td>
<td>UP</td>
<td>Aerospace Studies (Air Force ROTC)</td>
<td>Office Assistant</td>
<td>04/07/2008</td>
<td>11/12/2023</td>
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<tr>
<td>Charlene Brean</td>
<td>UF</td>
<td>Human Resources</td>
<td>Administrative Aide</td>
<td>11/13/2023</td>
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<tr>
<td>Ashley Lehto</td>
<td>UF</td>
<td>Sponsored Programs Accounting</td>
<td>Senior Office Assistant</td>
<td>02/20/2023</td>
<td>11/18/2023</td>
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<tr>
<td>Brian Danhoff</td>
<td>PF</td>
<td>Great Lakes Research Center</td>
<td>Research Scientist</td>
<td>01/01/2021</td>
<td>11/24/2023</td>
</tr>
</tbody>
</table>
## Michigan Technological University
### Fundraising Productivity Report - INTERNAL
### Fiscal Year 2024 through 10/31/2023
### Compared to Prior Fiscal Year

### Subtotal: Ind Giving

<table>
<thead>
<tr>
<th>Source</th>
<th>YTD Total</th>
<th>Adjustment</th>
<th>FY Goal</th>
<th>% of Goal</th>
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</thead>
<tbody>
<tr>
<td>Major Gifts (Over 10K)</td>
<td>846,534.30</td>
<td>7.96</td>
<td>11%</td>
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<tr>
<td>Planned Gift Commitments</td>
<td>3,665,587.53</td>
<td>13.35</td>
<td>27%</td>
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<td>Annual Giving (10K or less)</td>
<td>641,035.13</td>
<td>2.37</td>
<td>27%</td>
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<tr>
<td>Subtotal: Ind Giving</td>
<td>5,153,156.96</td>
<td>23.68</td>
<td>460%</td>
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### Subtotal: Corp Giving

<table>
<thead>
<tr>
<th>Source</th>
<th>YTD Total</th>
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<th>% of Goal</th>
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<tbody>
<tr>
<td>Corporate Giving</td>
<td>889,364.60</td>
<td>2.50</td>
<td>36%</td>
<td></td>
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<tr>
<td>Foundation &amp; Other Org Giving</td>
<td>392,480.16</td>
<td>3.00</td>
<td>13%</td>
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<tr>
<td>Corporate Sponsored Research</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Subtotal: Corp Giving</td>
<td>1,271,824.76</td>
<td>5.50</td>
<td>44%</td>
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### Fundraising Total

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<tr>
<td>Subtotal: Corp Giving</td>
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<td></td>
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<tr>
<td>TOTAL PROGRESS TOWARDS FUNDRAISING GOAL</td>
<td>6,435,001.72</td>
<td>42.85</td>
<td>15%</td>
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</thead>
<tbody>
<tr>
<td>Amt of TOTAL from Gifts-in-Kind</td>
<td>262,361.40</td>
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<tr>
<td>Amt of Gifts/Pledges earmarked for demand funds</td>
<td>4,486,984.60</td>
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<td>Amt of Gifts/Pledges earmarked for endowment funds</td>
<td>1,830,705.88</td>
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<tr>
<td>Amt of Gifts/Pledges earmarked for unrestricted funds</td>
<td>993,159.72</td>
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### Notes:
The Adjustment totals include changes to gift records (eg. gift received date, amount, or other donor driven gift modifications)
The FUNDRAISING TOTAL includes outright gifts, as well as new pledge and planned gift commitments, made in the specified date range. Realized planned gifts and realized pledges are not included in the FUNDRAISING TOTAL.
An Individual's gifts made through a donor-advised fund are counted under the individual
An individual's gifts made through another source (i.e. family foundation or closely held business) are counted under the source entity.
The FUNDRAISING TOTAL for fiscal years 2020 and later include gifts-in-kind under other sources (Major Gifts, Annual Giving, etc).
VIII.  Action and Discussion Items

VIII-A. EMERITUS RANK

Recommendation for the granting of faculty emerita/emeritus status originates within the retiree’s academic department and proceeds through the respective college. Once approved, the recommendation is presented to the Provost, and if successful, to the President of the University for presentation to the Board of Trustees.

RECOMMENDATION: It is recommended that the Board of Trustees approves the following emerita/emeritus appointments:

   Dr. Theresa Ahlborn, Professor Emerita
      Department of Civil, Environmental, and Geospatial Engineering

   Dr. Stephen Hackney, Professor Emeritus
      Department of Materials Science & Engineering
OFFICE MEMO

TO: Michigan Technological University Board of Trustees

FROM: Brian Barkdoll, Interim Department Chair, Civil, Environmental, and Geospatial Engineering

DATE: October 26, 2023

SUBJECT: Recommendation for Emeritus Status

The faculty of the Civil, Environmental, and Geospatial Engineering Department voted on September 26, 2023 to request that the Michigan Technological University Board of Trustees name Theresa Ahlborn as Professor Emerita upon her retirement on June 30, 2023.

Dr. Ahlborn’s research is in the area of structural concrete related to concrete buildings and bridges, including the use of ultra-high performance concrete for bridges and remote sensing technologies for bridge condition assessment. She is a respected international scholar with over 110 publications, and has been PI or co-PI on over $10M in research. In 2013, she was named WTS Woman of the Year in Michigan honoring her dedication to the professional advancement of women in transportation, and demonstrated leadership and outstanding contributions in the transportation field.

In 2010, she was awarded the prestigious PCI Distinguished Educator Award, recognizing educators who have made significant contributions to the precast/prestressed concrete industry and in 2014, she was honored with Michigan Technological University’s 2014 Distinguished Faculty Teaching Award recognizing excellence and passion for teaching. Dr. Ahlborn is a licensed professional engineer (State of Minnesota), a Fellow of the American Concrete Institute, and a Fellow of the Precast/Prestressed Concrete Institute.

Approved

Brian Barkdoll

Interim Department Chair

Date

College Dean

Date

Provost and Senior Vice President for Academic Affairs

Date

President

Date

Revised 9/25/23
TO: Michigan Technological University Board of Trustees

FROM: Audra Morse, Dean of the College of Engineering

DATE: October 3, 2023

SUBJECT: Recommendation for Emeritus Status

The faculty of the Materials Science and Engineering voted on October 3, 2023, to request that the Michigan Technological University Board of Trustees name Stephen Hackney as Professor Emeritus upon his retirement on January 1, 2024.

Steve joined the Department in August of 1986, and has been a model faculty member. He has authored 119 refereed publications, has received several million dollars in research support, has collaborated with many campus researchers, and has developed a strong program in EV battery technologies. His EV batteries course, which he plans to continue to offer online after retirement, is extremely popular.

Approved

Walter W. Milligan
Department Chair/School Dean  10/03/2023

College Dean

Provost and Senior Vice President for Academic Affairs

President

Revised 9/21/16
B. Election of Board of Trustees Chair and Vice Chair
   Jeffrey Littmann, Chair

VIII-B. ELECTION OF CHAIR AND VICE CHAIR

The Bylaws of the Board of Trustees record that at the last meeting of the calendar year, the Board shall elect a chair to take office at the first meeting in the following calendar year. It further states that the Board shall also elect a vice chair to preside in the absence of the chair.

RECOMMENDATION: That the Board of Trustees elects a chair for the calendar year 2024; and that further, the Board elects a vice chair for the same period.

IX. Reports

   A. Faculty Presentation: Great Lakes Buoy Network
      Jamey Anderson, Assistant Director, Marine Operations, Great Lakes Research Center
Big Lake Sentinels
Michigan Tech's Science Buoy Program
• Great Lakes Research Center and the Marine Research Assets Shared Facility
  • Staff
  • Resources

• **GLRC Vision:** Embracing passion in research to pursue a brighter future for the Great Lakes Region and beyond
• Brief history of the Michigan Tech’s buoy program
• What are they? What data do they collect?
• Evolution of design, form and use
History

- 2010 - 1 buoy (North Entry, Keweenaw Waterway)
- Program began w/ Guy Meadows design and direction when still at UofM
- TIDAS 900 hull/design
- Funding for additional buoys and deployments increase
- CB-250 hulls
History

- CDIP Datawell’s
- Enbridge Datawell
- Lake Ontario CB’s
- Spotters
- Spotters as drifters
- Spotters overwinter for 2023-24
- 2024: Michigan Tech deploys 26 buoys across four Great Lakes
What do they do?

- What data do they collect and whom do they support?
- Both real-time decision-making and critical long-term datasets
- Public benefit/safety:
  - boating conditions (wind/waves)
  - water temperature
  - 80,000 buoy page views in 2023 on GLOS data portal
What do they do?

- Science support: modelling, forecasting, climate, decision support
- Industry, State/Federal Agencies
  - Multiyear regional observation networks (IOOS, GLOS)
  - Interface and directly support six different National Weather Service offices (Duluth, Marquette, Gaylord, Milwaukee, Chicago, Green Bay)
• Project specific needs:
  • Images, currents, DO, turbidity, waves, coastal erosion, model input & validation

• Time lapse to capture phenomena

• First moored overwinter collection of wave height and sea surface temperature. Used to validate NOAA Wavewatch 3 model.

• Combined 1,700 days/year @ 30 minute interval (GLOS only)
What do they do?

- Project specific needs:
  - Images, currents, DO, turbidity, waves, coastal erosion, model input & validation
- Time lapse to capture phenomena
- First moored overwinter collection of wave height and sea surface temperature. Used to validate NOAA Wavewatch 3 model.
- Combined 1,700 days/year @ 30 minute interval (GLOS only)
Evolution

- Early TIDAS design, iterations
  - fiberglass, steel
  - 800 lbs
  - 1,200 lb mooring needed
- Micro-electronics & miniaturization, decreased power consumption
- Advanced materials
Evolution

- Improved mooring design
- Improvements in battery chemistry, charging, behavior
  - 24 Ah in 2010
  - 84 Ah in 2022
- Improved photovoltaic tech
  - size, efficiency
- Data telemetry: 1G cell in 2010, now Iridium satellite is common
- High data throughput for images and dense data streams
Evolution

- Fondriest CB buoy line
  - rhino lined foam body, steel skeleton
  - 95 - 145 lbs
  - 200 lb mooring needed

- Spotter wave buoy
  - 12 lbs
  - derived wind data
  - other WQ sensors

- Student Interns - none of this evolution happens without their input and efforts
Final Thoughts

- Efficient & Effective
  - By comparison: NOAA GLERL and CIGLR combined deploy ~8 buoys with support from a dozen vessels, dedicated field and boat personnel, etc.
  - Michigan Tech has developed and maintained many of the operational monitoring capabilities for the Great Lakes Observing System (GLOS) for over a decade.
  - No other entity deploys and supports as many science buoys on the Great Lakes.
  - Take pride in continuing to forge the advancement of technology in the marine engineering space, serving both public and private stakeholders.
Thank You
B. **Faculty Presentation: Wave Energy**
Gordon Parker, John and Cathi Drake Endowed Chair in Mechanical Engineering
Marine Energy

Gordon Parker
John and Cathi Drake Endowed Professor of Mechanical Engineering
15 December 2023
Wave Energy Converter (WEC) Modeling and Control

What We Do

Develop and Experimentally Validate WEC Math Models
Design Control Systems that Maximize Energy Extraction
Mentor

What, Why, How
Introduction

Dynamics, Simulation, Control
Research Areas

Naval Technologies

Marine Renewables

Diesel Aftertreatment

7/10 Michigan Tech BS Graduates
Collaborations and Acknowledgements

John and Cathi Drake Chair

DOE and Labs: Sandia, NREL, PNNL
DoD: ARL, ONR, AFOSR, NAVSEA, GVSC

Several For-Profit Companies

Undergraduate and Graduate Students

Michigan Tech Faculty and Staff

University of Edinburgh and University College London
Wave Energy

Application Focus: Marine Energy Grids (MEG)

Research Focus: Large motion nonlinear, optimal control
Anatomy of a Point Absorber WEC

Convert wave (disturbance) kinetic energy into something useful

Power = Force x Velocity
A point absorber controller extracts and adds energy harmonizing velocity and force.

Most feedback control systems are designed to mitigate the effect of disturbances.
WEC Control

Wave Follower
Large, Harmonized Motion

Design Variables

Buoy Shape
Control System

What We Do

Develop and Experimentally Validate WEC Math Models
Design Control Systems that Maximize Energy Extraction
Mentor
**Objective:** MPC for nonlinear, large motion WECs

Model Predictive Control (MPC)

MPC - Requires Look-Ahead Wave Force

PTO Force

Execute

Optimal Solution

New Optimal Solution

Time

Wetted Surface Area

Small (Linear)

SWL

Large (Nonlinear)

Requires Look-Ahead Wave Forces…
Objective: Estimate wave forces BEFORE they occur using upstream wave elevation measurements.

Results: Accurate force forecasts up to 1 second ahead AND best practice measurement geometry.
Theoretical Optimal Control and Validation

Houssein Yassin  Tania Demonte

**Objective:** Develop theoretical optimal control for large motion, nonlinear buoys

Showed that the dynamic Froude-Krylov force is essential for predicting nonlinear buoy response

Solved the PTO force optimal control problem, applicable to any buoy geometry

Validation …
Objective: Develop NN control law to compute optimal PTO force, that maximizes energy capture, in real-time

Results: Works for regular waves and extending to more complex wave forms
Facilities and Promotion

Michigan Tech is now one of 19 U.S. DOE Testing & Expertise for Access to Marine Energy Research (TEAMER) facilities.

MTUWave: Exceptional WEC Model Test and Education Facility

Interactive website with news and video walkthroughs highlighting results

2-3 Capstone Design and Enterprise teams per year, including the Marine Energy Collegiate Competition

Six Faculty: Shangyan Zou, Jungyun Bae, MK Park, Hassan Masoud, Wayne Weaver

Luke Schloemp
**What:** Point absorber WECs convert wave kinetic energy into useful forms. Their energy harvesting control exploits disturbances instead of mitigating them.

**Why:** Large, nonlinear buoy motion offers the promise of greater energy extraction to advance Marine Energy Grids.

**How:** Combining modeling, simulation and experiments to understand how buoy shape and a harmonized control system impacts performance using optimal and machine learning strategies.
The beautiful images requiring attribution are shown below.
The relevant license is: https://creativecommons.org/licenses/by-sa/4.0/deed.en
C. **Treasurer’s Report**  
Nicholas Stevens, Treasurer
Treasurer Report

December 15, 2023

Nick Stevens
Chief Financial Officer and Senior Vice President for Administration
Moody’s Rating

A1 Stable – October 10, 2023

Strengths

• Niche focus on STEM programs
• Modest growth in FTE enrollment
• Revenue Diversification
• Favorable fundraising on a per student basis
• Total cash/investments provide an estimated 1.0x cushion of proforma debt

Challenges

• Highly competitive student market
• Historically thin operating performance with recent margin improvement
• Higher cost business model associated with STEM focus constrains budget flexibility
• More limited financial flexibility than peers
Operating Revenue

- Tuition and fees, net: 31%
- Grants and contracts: 20%
- State appropriations: 28%
- Federal Pell grants: 1%
- Gifts and other, net: 9%
- Auxiliary, departmental and educational activities, net: 11%
Net Tuition Revenue

<table>
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<tr>
<th>Year</th>
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<th>Net Tuition</th>
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<tr>
<td>2020</td>
<td>139.8</td>
<td>101.1</td>
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<tr>
<td>2021</td>
<td>142.1</td>
<td>98.2</td>
</tr>
<tr>
<td>2022</td>
<td>152.3</td>
<td>102.2</td>
</tr>
<tr>
<td>2023</td>
<td>160.5</td>
<td>106.3</td>
</tr>
</tbody>
</table>
State Appropriations

- Fiscal Year 2024 BASE FUNDING IMPACTS
  - Operating Appropriations 5%
  - MPSERS UAAL Payment

- Fiscal Year 2024 ONE-TIME IMPACTS
  - Nursing Program
  - ITEMS Funding
  - Critical Incident Mapping
Expenses

- Student financial support: 21%
- Supplies and services: 19%
- Utilities: 2%
- Depreciation and amortization: 5%
- Compensation and benefits: 53%
Assets

- **Current Receivables**: $602.4
- **Receivables Total**: $564.7
- **Cash & Cash Equivalents**: $600.0
- **Total**: $543.7

**Graphs**

- **Pie Chart**
  - Capital Assets: 41%
  - Cash & Cash Equivalents: 5%
  - LT Investments: 45%
  - LT Receivables: 4%
  - Other Assets: 1%

- **Bar Charts**
  - **2021**:
    - Capital Assets: $221.3
    - Receivables: $35.6
    - Cash & Cash Equivalents: $46.2
    - Investments (including unspent bond proceeds): $25.1
    - Other Assets: $50.6
  - **2022**:
    - Capital Assets: $221.4
    - Receivables: $42.3
    - Cash & Cash Equivalents: $46.1
    - Investments (including unspent bond proceeds): $50.6
    - Other Assets: $245.6
  - **2023**:
    - Capital Assets: $269.7
    - Receivables: $25.1
    - Cash & Cash Equivalents: $50.6
    - Investments (including unspent bond proceeds): $245.6
    - Other Assets: $602.4
Liabilities

- Pension and OPEB Obligations: 19%
- Accts Pay/Accrd Liab.: 6%
- Other liabilities: 7%
- Accrued payroll & related: 6%
- Long term debt: 62%

CFO & Sr. VP for Administration – Formal Session of the Board of Trustee Meeting
December 15, 2023
Assets, Liabilities and Net Position

Fiscal Year

Assets, Liabilities, and Net Position

- Assets Liabilities Net Position
- $800 $700 $600 $500 $400 $300 $200 $100
- 2018 2019 2020 2021 2022 2023 2024*

*Projected
Questions
D. University Research and Sponsored Programs Report
David Reed, Vice President for Research
Sponsored Program Summary
FY23 and 1st Quarter FY24 Activities

David Reed
Vice President for Research
December, 2023
Outline

• FY23 Results
  • Sponsored Awards
  • Research Expenditures
  • Intellectual Property/Commercialization
  • Corporate Sponsorship

• 1st Quarter FY24
  • Sponsored Awards
  • Research Expenditures
Sponsored Awards, FY23

$82.8 million
+ 4.6 %
Sponsored Awards, FY23

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

FYTD 2022: 37
FYTD 2023: 64

Sponsored Awards
Fiscal Year 2023
4th Quarter
Ended June 30, 2023

TOTAL: $82,787,026

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

FYTD 2022: 37
FYTD 2023: 64

Sponsored Awards
Fiscal Year 2023
4th Quarter
Ended June 30, 2023

TOTAL: $82,787,026
## Sponsored Awards FY23

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Proposals Submitted FY '23 as of 6/30</th>
<th>Proposals Submitted FY '22 as of 6/30</th>
<th>Awards Received FY '23 as of 6/30</th>
<th>Awards Received FY '22 as of 6/30</th>
<th>Awards Received ($) FY '23</th>
<th>Awards Received ($) FY '22</th>
<th>Variance ($)</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>68</td>
<td>79</td>
<td>44</td>
<td>42</td>
<td>5,221,171</td>
<td>5,394,284</td>
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<td>National Science Foundation</td>
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<td>135</td>
<td>51</td>
<td>54</td>
<td>12,173,956</td>
<td>12,233,580</td>
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<td>57</td>
<td>43</td>
<td>38</td>
<td>42</td>
<td>3,342,221</td>
<td>2,126,970</td>
<td>1,215,251</td>
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<tr>
<td>US Department of Defense</td>
<td>109</td>
<td>117</td>
<td>100</td>
<td>104</td>
<td>20,949,258</td>
<td>20,238,672</td>
<td>710,586</td>
<td>3.5%</td>
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<tr>
<td>US Department of Education</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>476,751</td>
<td>335,401</td>
<td>141,350</td>
<td>42.1%</td>
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<tr>
<td>US Department of Energy</td>
<td>66</td>
<td>42</td>
<td>47</td>
<td>34</td>
<td>10,005,903</td>
<td>6,667,440</td>
<td>3,338,463</td>
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<tr>
<td>US Department of HHS</td>
<td>76</td>
<td>60</td>
<td>18</td>
<td>9</td>
<td>4,721,833</td>
<td>6,415,389</td>
<td>-1,693,556</td>
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</tr>
<tr>
<td>US Department of Transportation</td>
<td>24</td>
<td>17</td>
<td>13</td>
<td>19</td>
<td>3,282,688</td>
<td>4,438,210</td>
<td>-1,155,522</td>
<td>-26.0%</td>
</tr>
<tr>
<td>Other Federal Agencies*</td>
<td>68</td>
<td>68</td>
<td>34</td>
<td>47</td>
<td>5,193,100</td>
<td>4,471,755</td>
<td>721,354</td>
<td>16.1%</td>
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<tr>
<td>Federal Agency Total</td>
<td>601</td>
<td>567</td>
<td>349</td>
<td>355</td>
<td>65,366,890</td>
<td>62,321,701</td>
<td>3,045,189</td>
<td>4.9%</td>
</tr>
<tr>
<td>State of Michigan</td>
<td>42</td>
<td>43</td>
<td>31</td>
<td>30</td>
<td>3,288,165</td>
<td>2,846,172</td>
<td>441,993</td>
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</tr>
<tr>
<td>Industrial</td>
<td>131</td>
<td>149</td>
<td>115</td>
<td>145</td>
<td>4,913,982</td>
<td>6,409,843</td>
<td>-1,495,861</td>
<td>-23.3%</td>
</tr>
<tr>
<td>Foreign</td>
<td>7</td>
<td>16</td>
<td>13</td>
<td>11</td>
<td>1,628,067</td>
<td>1,125,945</td>
<td>502,122</td>
<td>44.6%</td>
</tr>
<tr>
<td>All Other Sponsors</td>
<td>99</td>
<td>78</td>
<td>49</td>
<td>45</td>
<td>3,957,723</td>
<td>1,656,092</td>
<td>2,301,631</td>
<td>139.0%</td>
</tr>
<tr>
<td>Subtotal</td>
<td>880</td>
<td>853</td>
<td>557</td>
<td>586</td>
<td>79,154,827</td>
<td>74,359,753</td>
<td>4,795,074</td>
<td>6.4%</td>
</tr>
<tr>
<td>Gifts**</td>
<td>N/A</td>
<td>N/A</td>
<td>253</td>
<td>245</td>
<td>3,611,978</td>
<td>4,531,416</td>
<td>-919,438</td>
<td>-20.3%</td>
</tr>
<tr>
<td>Crowdfunding</td>
<td>N/A</td>
<td>N/A</td>
<td>15</td>
<td>10</td>
<td>20,221</td>
<td>235,997</td>
<td>-215,776</td>
<td>-91.1%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>880</td>
<td>853</td>
<td>825</td>
<td>841</td>
<td>82,787,026</td>
<td>79,117,166</td>
<td>$3,669,860</td>
<td>4.6%</td>
</tr>
</tbody>
</table>


**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.
<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>Preliminary FY2023</th>
<th>Preliminary FY2022</th>
<th>Variance FY2022</th>
<th>% Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>4,810,224</td>
<td>3,683,556</td>
<td>1,126,668</td>
<td>30.6%</td>
</tr>
<tr>
<td>Advanced Power Systems Research Center (APSRC)</td>
<td>1,721,481</td>
<td>1,020,792</td>
<td>700,689</td>
<td>68.6%</td>
</tr>
<tr>
<td>College of Business</td>
<td>1,873,140</td>
<td>1,823,367</td>
<td>49,773</td>
<td>2.7%</td>
</tr>
<tr>
<td>College of Computing</td>
<td>5,833,345</td>
<td>4,940,119</td>
<td>893,226</td>
<td>18.1%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>38,457,708</td>
<td>33,957,094</td>
<td>4,500,614</td>
<td>13.3%</td>
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<tr>
<td>College of Forest Resources &amp; Environmental Science</td>
<td>7,883,525</td>
<td>6,964,038</td>
<td>919,487</td>
<td>13.2%</td>
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<tr>
<td>College of Science &amp; Arts</td>
<td>18,030,384</td>
<td>16,503,279</td>
<td>1,527,105</td>
<td>9.3%</td>
</tr>
<tr>
<td>Great Lakes Research Center (GLRC)**</td>
<td>1,667,906</td>
<td>1,419,899</td>
<td>248,007</td>
<td>17.5%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>8,795,329</td>
<td>11,276,788</td>
<td>(2,481,459)</td>
<td>-22.0%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>13,605,971</td>
<td>13,322,889</td>
<td>283,082</td>
<td>2.1%</td>
</tr>
<tr>
<td>Total</td>
<td>102,679,013</td>
<td>94,911,821</td>
<td>7,767,192</td>
<td>+ 8.2%</td>
</tr>
</tbody>
</table>

*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.

NOTE: FY2023 first quarter reported figures included National Science Foundation Other Sponsored Activities awards.
Research Expenditures FY23

$102.7 million
+ 8.2%
## Intellectual Property, FY23

<table>
<thead>
<tr>
<th>Category</th>
<th>FY22</th>
<th>FY23</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures Received</td>
<td>31</td>
<td>18</td>
<td>-41.9%</td>
</tr>
<tr>
<td>Nondisclosure Agreements</td>
<td>88</td>
<td>98</td>
<td>11.4%</td>
</tr>
<tr>
<td>Patents Filed or Issued</td>
<td>22</td>
<td>12</td>
<td>-45.5%</td>
</tr>
<tr>
<td>License Agreements</td>
<td>6</td>
<td>9</td>
<td>50.0%</td>
</tr>
<tr>
<td>Gross Royalties</td>
<td>$76,548</td>
<td>$68,409</td>
<td>-10.6%</td>
</tr>
</tbody>
</table>
Corporate Sponsorship, FY23

Sponsored Awards
-Industry-
COMBINED
Fiscal Year 2023
4th Quarter
Ended June 30, 2023

TOTAL: $18,750,815
<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Proposals Submitted FY '24 as of 9/30</th>
<th>Proposals Submitted FY '23 as of 9/30</th>
<th>Awards Received FY '24 as of 9/30</th>
<th>Awards Received FY '23 as of 9/30</th>
<th>Awards Received (5) FY '24 as of 9/30</th>
<th>Awards Received (5) FY '23 as of 9/30</th>
<th>Variance $</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>15</td>
<td>7</td>
<td>4</td>
<td>9</td>
<td>317,512</td>
<td>1,769,094</td>
<td>-1,451,582</td>
<td>-82.1%</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>57</td>
<td>38</td>
<td>15</td>
<td>23</td>
<td>4,309,207</td>
<td>6,631,768</td>
<td>-2,322,561</td>
<td>-35.0%</td>
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<tr>
<td>US Department of Agriculture</td>
<td>5</td>
<td>11</td>
<td>13</td>
<td>12</td>
<td>962,286</td>
<td>1,697,824</td>
<td>-735,538</td>
<td>-43.3%</td>
</tr>
<tr>
<td>US Department of Defense</td>
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<td>20</td>
<td>20</td>
<td>22</td>
<td>5,054,250</td>
<td>7,309,278</td>
<td>-2,255,028</td>
<td>-30.9%</td>
</tr>
<tr>
<td>US Department of Education</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>281,024</td>
<td>-281,024</td>
<td>-100.0%</td>
</tr>
<tr>
<td>US Department of Energy</td>
<td>15</td>
<td>13</td>
<td>12</td>
<td>13</td>
<td>1,794,316</td>
<td>841,097</td>
<td>953,219</td>
<td>113.3%</td>
</tr>
<tr>
<td>US Department of HHS</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>4</td>
<td>3,496,735</td>
<td>1,080,434</td>
<td>2,416,301</td>
<td>223.6%</td>
</tr>
<tr>
<td>US Department of Transportation</td>
<td>3</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>905,266</td>
<td>498,843</td>
<td>406,423</td>
<td>81.5%</td>
</tr>
<tr>
<td>Other Federal Agencies*</td>
<td>24</td>
<td>13</td>
<td>11</td>
<td>5</td>
<td>1,093,015</td>
<td>1,164,617</td>
<td>888,398</td>
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<td>Federal Agency Total</td>
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<td>122</td>
<td>88</td>
<td>93</td>
<td>18,832,587</td>
<td>21,213,979</td>
<td>-2,381,392</td>
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</tr>
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<td>State of Michigan</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>1,059,692</td>
<td>1,699,975</td>
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<tr>
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<td>47</td>
<td>42</td>
<td>32</td>
<td>24</td>
<td>936,850</td>
<td>570,587</td>
<td>366,263</td>
<td>64.2%</td>
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<td>Foreign</td>
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<td>2</td>
<td>1</td>
<td>4</td>
<td>10,060</td>
<td>306,000</td>
<td>-295,940</td>
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<tr>
<td>All Other Sponsors</td>
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<td>19</td>
<td>7</td>
<td>7</td>
<td>831,220</td>
<td>256,988</td>
<td>574,232</td>
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<tr>
<td>Subtotal</td>
<td>227</td>
<td>194</td>
<td>135</td>
<td>134</td>
<td>21,670,409</td>
<td>22,516,629</td>
<td>-846,220</td>
<td>-3.8%</td>
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<tr>
<td>Gifts**</td>
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<td>N/A</td>
<td>69</td>
<td>54</td>
<td>1,004,328</td>
<td>1,081,690</td>
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<tr>
<td>Crowdfunding</td>
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<td>N/A</td>
<td>2</td>
<td>4</td>
<td>1,388</td>
<td>3,281</td>
<td>1,893</td>
<td>58.4%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>227</td>
<td>194</td>
<td>206</td>
<td>192</td>
<td>22,676,125</td>
<td>23,599,600</td>
<td>-923,475</td>
<td>-3.9%</td>
</tr>
</tbody>
</table>

**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 1st Qtr FY24

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FY2024</th>
<th>FY2023</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>3,076,161</td>
<td>2,997,877</td>
<td>78,284</td>
<td>2.6%</td>
</tr>
<tr>
<td>Advanced Power Systems Research Center (APSRC)</td>
<td>356,882</td>
<td>281,331</td>
<td>75,551</td>
<td>26.9%</td>
</tr>
<tr>
<td>College of Business</td>
<td>278,689</td>
<td>330,646</td>
<td>(51,957)</td>
<td>-15.7%</td>
</tr>
<tr>
<td>College of Computing</td>
<td>1,066,730</td>
<td>914,928</td>
<td>151,802</td>
<td>16.6%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>7,683,329</td>
<td>7,122,208</td>
<td>561,121</td>
<td>7.9%</td>
</tr>
<tr>
<td>College of Forest Resources &amp; Environmental Science</td>
<td>1,538,123</td>
<td>1,748,679</td>
<td>(210,556)</td>
<td>-12.0%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>3,306,606</td>
<td>3,403,327</td>
<td>(96,721)</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Great Lakes Research Center (GLRC)**</td>
<td>448,404</td>
<td>400,530</td>
<td>47,874</td>
<td>12.0%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>1,621,536</td>
<td>1,619,323</td>
<td>2,213</td>
<td>0.1%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>2,701,049</td>
<td>2,767,981</td>
<td>(66,932)</td>
<td>-2.4%</td>
</tr>
<tr>
<td>Total</td>
<td>22,077,509</td>
<td>21,586,830</td>
<td>490,679</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

*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.

NOTE: FY2023 first quarter reported figures included National Science Foundation Other Sponsored Activities awards.
The Carnegie Foundation, American Council on Education and Indiana University are revising the Carnegie Higher Ed Classification System, with new classifications to be released in early 2025.

For research institutions, they are simplifying the research classification.

With the release in 2025, R1 Very High Research institutions will be defined as having over $50 million in research expenditures reported in the NSF HERD Survey and over 70 research doctorates granted as reported to IPEDS.

In 2023, we are reporting $102.7 million in research expenditures and 86 research doctorates granted, so Michigan Tech will be R1 at the next classification update in 2025.
E. Undergraduate Student Government
Mason Krause, President
USG Board of Trustees Presentation
Mason Krause, USG President
12-15-2023
Annual 1 UP Conference

- Annual Conference in partnership with NMU and LSSU
- ~50 Attendees from the Student Governments of our 3 Universities
USG Break Bus

Wisconsin Break Bus
- Rhinelander
- Stevens Point
- Madison
- Rockford
- Chicago
- O’Hare Airport

Destination Drop Off Point
- 25 responses
- Rhinelander: 40%
- Stevens Point: 28%
- Madison: 25%
- Rockford: 4%
- Chicago: 2%
- O’Hare International Airport: 0%

Michigan Break Bus
- St. Ignace
- Gaylord
- Clare
- East Lansing

Destination Drop Off Point
- 164 responses
- St. Ignace: 84%
- Gaylord: 11%
- Clare: 3%
- East Lansing: 2%
Israel-Palestine Info Session

- Informational Discussion with collaboration between USG’s Political Affairs Committee and Professor Todd Holmstrom
- ~40 Attendees
SAF Review Ad-Hoc Committee
RSO Officer Survey

Finish the following statement: My RSO’s Student Activity Fee budget ...
38 responses

50% does not meet our spending needs.
47.4% meets our spending needs.
2.6% exceeds our spending needs.

Please indicate which of the following changes to the SAF your RSO would support?
38 responses

63.2% Fee decrease resulting in a possible decrease in RSO budget
28.9% No change
7.9% Fee increase resulting in a possible increase in RSO budget
## SAF Review Ad-Hoc Committee

### Next Steps

<table>
<thead>
<tr>
<th>November 2023</th>
<th>January / February</th>
<th>February / March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Making</td>
<td>Survey Data Analysis</td>
<td>Begin Preparing for Recommendation</td>
<td>Deliver findings and recommendation to the Board of Trustees (April 26th, 2024)</td>
</tr>
<tr>
<td>RSO Officer Survey</td>
<td>Focus Groups</td>
<td>Continued Focus Groups</td>
<td></td>
</tr>
<tr>
<td>SAF Advertising</td>
<td>Budget Hearings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Body Survey</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you! Questions or Comments?

Mason Krause
mrkrause@mtu.edu
usg-president@mtu.edu
F. Graduate Student Government
Karlee Westrem, President
Presentation to
BOARD OF TRUSTEES
Karlee Westrem
December 15, 2023
GSG 3MT Competition

Congratulations to our winners:

First Place: Gustavo Bejar Lopez (Geological and Mining Engineering and Sciences)

Second Place: Ellianna Sempek (Biological Sciences)

People’s Choice: Cody Tuftee (Biomedical Engineering)

Thank you to our judges:

Chris Sanders  Stefka Hristova
Jill Olin    Jaemin Yeom
Laura Bulleit  Will Cantrell
Jacque Smith    Andrew Storer
Jim DeRoschers   Michelle Miller
Marina Tanavosa

Recordings of Preliminary Rounds & Finals on our GSG Youtube channel
GSG FALL EVENTS

Write Right  Dr. Yoke Khin Yap
Career Planning  Dr. Melissa Baird
Research Journeys  IPEC
Grant Writing  IPEC, Ecosystem Science Center

Fall Color Tour
Halloween Costume Party
Ice Skating @ SDC
Coffee Chats  SWE, Women in Physics, Weekly with GSG President
Updates

Grad Commons

May 1, 2022 - October 31, 2023

2,254 swipes*
370 unique students
~28% of graduate students

TRAVEL AND CAREER ENRICHMENT GRANTS

106 Travel Grants
3 Career Enrichment
THANK YOU!
G. University Senate
Robert Hutchinson, President
University Senate Update

Robert Hutchinson, Senate President
Fall 2023 Review

• Approved 1-24: Amending the Scheduling of Spring Break in Senate Procedure 101.1.1

• Approved 5-24: Proposal to Extend Employee Benefits Posthumously to Surviving Beneficiaries

• 3 other curricular proposals still to come
Pending Business from Spring 2023

• 19-23: Amending Constitution and Bylaws to Combine Voting Blocks

• 35-23: Proposal to Raise Awareness and Reduce Mental Health Stigma
Agenda Items for the Coming Year

- Continue Working on Search Procedures for and Evaluation Procedures of Department Chairs and School Deans
- Conduct referenda to approve changes to the Senate Constitution and Appendix I of the faculty handbook in relation to joint appointment procedures
- Continue working to increase staff participation on the Senate
- Preparing to transition to daytime meetings for the 24-25 academic year
X. Informational Items
   A. Analysis of Investments
<table>
<thead>
<tr>
<th></th>
<th>Market Value 6/30/2023</th>
<th>Market Value 9/30/2023</th>
<th>Fiscal-Year-To-Date Investment Return</th>
<th>Benchmark Return</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Money Market Fund</strong></td>
<td>$1,706,318</td>
<td>$1,774,280</td>
<td>1.32%</td>
<td>1.32%</td>
<td>ICE BofA Merrill Lynch US T-Bill Index</td>
</tr>
<tr>
<td><strong>Equity Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Equity Fund</td>
<td>7,818,944</td>
<td>6,957,354</td>
<td>-3.21%</td>
<td>-3.27%</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>Commonfund OCIO Equity Fund</td>
<td>5,485,594</td>
<td>5,383,940</td>
<td>-1.85%</td>
<td>-3.27%</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td><strong>Total Equity Funds</strong></td>
<td>13,304,538</td>
<td>12,341,294</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fixed Income Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate Term Fund</td>
<td>7,252,185</td>
<td>7,272,460</td>
<td>0.62%</td>
<td>0.74%</td>
<td>ICE BofA Merrill Lynch 1-3 Yr Treasury</td>
</tr>
<tr>
<td>Commonfund Contingent Asset Portfolio</td>
<td>9,594,832</td>
<td>10,532,366</td>
<td>0.37%</td>
<td>0.74%</td>
<td>ICE BofA Merrill Lynch 1-3 Yr Treasury</td>
</tr>
<tr>
<td>High Quality Bond Fund</td>
<td>5,230,205</td>
<td>5,110,878</td>
<td>-3.37%</td>
<td>-3.23%</td>
<td>Bloomberg Barclays US Aggregate Bond Index</td>
</tr>
<tr>
<td>Multi-Strategy Bond Fund</td>
<td>5,899,333</td>
<td>5,484,938</td>
<td>-3.23%</td>
<td>-3.23%</td>
<td>Bloomberg Barclays US Aggregate Bond Index</td>
</tr>
<tr>
<td><strong>Total Fixed Income Funds</strong></td>
<td>27,976,555</td>
<td>28,400,642</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>$42,987,411</td>
<td>$42,516,216</td>
<td>-1.01%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Current Asset Allocation
- Cash Equivalents, 4%
- Equities, 29%
- Fixed Income - Short Duration, 42%
- Fixed Income - Long Duration, 25%

### Target Asset Allocation
- Cash Equivalents, 5%
- Equities, 35%
- Fixed Income - Short Duration, 35%
- Fixed Income - Long Duration, 25%
B. Research & Sponsored Programs
Sponsored Activities Summary
Fiscal Year 2024, Quarter Ended 9/30/2023

- Total awards are down 3.9% for FY24 compared to FY23.
- Gifts are down 7.2% for FY24 compared to FY23.
- Federal agency awards are down 11.2% for FY24 compared to FY23.
- Overall Industry activity decreased by 62.3% over the last fiscal year. However, it should be noted that a singular $3 million industry related award was received in Q1 of FY23 which was not the case in FY24.
- Research expenditures are up 2.3% over FY23. External expenditures remained relatively constant compared to FY23. Internal expenditures are up 6.1% over last fiscal year.
Sponsored Awards
Fiscal Year 2024
1st Quarter
Ended Sept 30, 2023
TOTAL: $22,676,125

Pre-Proposals Submitted
(excluded from Proposals Submitted figures below)
FYTD 2023: 15
FYTD 2024: 7

Proposals Submitted
Awards Received
Awards Received ($)

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>FY '24 as of 9/30</th>
<th>FY '23 as of 9/30</th>
<th>FY '24 as of 9/30</th>
<th>FY '23 as of 9/30</th>
<th>FY '24 as of 9/30</th>
<th>FY '23 as of 9/30</th>
<th>Variance</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>15</td>
<td>7</td>
<td>4</td>
<td>9</td>
<td>317,512</td>
<td>1,769,094</td>
<td>-1,451,582</td>
<td>-82.1%</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>57</td>
<td>38</td>
<td>15</td>
<td>23</td>
<td>4,309,207</td>
<td>6,631,768</td>
<td>-2,322,561</td>
<td>-35.0%</td>
</tr>
<tr>
<td>US Department of Agriculture</td>
<td>5</td>
<td>11</td>
<td>13</td>
<td>12</td>
<td>962,286</td>
<td>1,697,824</td>
<td>-735,538</td>
<td>-43.3%</td>
</tr>
<tr>
<td>US Department of Defense</td>
<td>13</td>
<td>20</td>
<td>18</td>
<td>22</td>
<td>5,054,250</td>
<td>7,309,278</td>
<td>-2,255,028</td>
<td>-30.9%</td>
</tr>
<tr>
<td>US Department of Education</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>281,024</td>
<td>-281,024</td>
<td>-100.0%</td>
</tr>
<tr>
<td>US Department of Energy</td>
<td>15</td>
<td>13</td>
<td>12</td>
<td>13</td>
<td>1,794,316</td>
<td>841,097</td>
<td>953,219</td>
<td>113.3%</td>
</tr>
<tr>
<td>US Department of HHS</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>4</td>
<td>3,496,735</td>
<td>1,080,434</td>
<td>2,416,301</td>
<td>223.6%</td>
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<tr>
<td>US Department of Transportation</td>
<td>3</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>905,266</td>
<td>498,843</td>
<td>406,423</td>
<td>81.5%</td>
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<tr>
<td>Other Federal Agencies*</td>
<td>24</td>
<td>13</td>
<td>11</td>
<td>5</td>
<td>1,993,015</td>
<td>1,059,692</td>
<td>933,323</td>
<td>88.3%</td>
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<tr>
<td>Federal Agency Total</td>
<td>137</td>
<td>122</td>
<td>88</td>
<td>93</td>
<td>18,832,587</td>
<td>21,213,979</td>
<td>-2,381,392</td>
<td>-11.2%</td>
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<tr>
<td>State of Michigan</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>1,059,692</td>
<td>169,075</td>
<td>890,617</td>
<td>526.8%</td>
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<tr>
<td>Industrial</td>
<td>47</td>
<td>42</td>
<td>32</td>
<td>24</td>
<td>936,850</td>
<td>570,587</td>
<td>366,263</td>
<td>64.2%</td>
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<tr>
<td>Foreign</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>10,060</td>
<td>306,000</td>
<td>-295,940</td>
<td>-96.7%</td>
</tr>
<tr>
<td>All Other Sponsors</td>
<td>29</td>
<td>19</td>
<td>7</td>
<td>7</td>
<td>831,220</td>
<td>256,988</td>
<td>574,232</td>
<td>223.4%</td>
</tr>
<tr>
<td>Subtotal</td>
<td>227</td>
<td>194</td>
<td>135</td>
<td>134</td>
<td>21,670,409</td>
<td>22,516,629</td>
<td>-846,220</td>
<td>-3.8%</td>
</tr>
<tr>
<td>Gifts**</td>
<td>N/A</td>
<td>N/A</td>
<td>69</td>
<td>54</td>
<td>1,004,328</td>
<td>1,081,690</td>
<td>-77,362</td>
<td>-7.2%</td>
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<tr>
<td>Crowdfunding</td>
<td>N/A</td>
<td>N/A</td>
<td>2</td>
<td>4</td>
<td>1,388</td>
<td>1,281</td>
<td>107</td>
<td>8.4%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>227</td>
<td>194</td>
<td>206</td>
<td>192</td>
<td>22,676,125</td>
<td>23,599,600</td>
<td>-$923,475</td>
<td>-3.9%</td>
</tr>
</tbody>
</table>

**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.
### Sponsored Awards
- **Industry-**
- **COMBINED**
- **Fiscal Year 2024**
- **1st Quarter**
- **Ended Sept 30, 2023**

**TOTAL: $2,269,515**

### Industry Segment Breakdown

<table>
<thead>
<tr>
<th>Industry Segment</th>
<th>FY '24</th>
<th>FY '23</th>
<th>Proposals Submitted</th>
<th>FY '24</th>
<th>FY '23</th>
<th>Awards Received</th>
<th>Awards Received ($)</th>
<th>Variance</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>11</td>
<td>18</td>
<td>12</td>
<td>19</td>
<td>302,028</td>
<td>531,689</td>
<td>-229,661</td>
<td>-43.2%</td>
<td></td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>79,000</td>
<td>26,500</td>
<td>52,500</td>
<td>198.1%</td>
<td></td>
</tr>
<tr>
<td>Chemical</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>28,000</td>
<td>25,400</td>
<td>2,600</td>
<td>10.2%</td>
<td></td>
</tr>
<tr>
<td>Civil</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>74,000</td>
<td>166,865</td>
<td>-92,865</td>
<td>-55.7%</td>
<td></td>
</tr>
<tr>
<td>Consumer Products</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>16</td>
<td>112,269</td>
<td>387,338</td>
<td>-275,069</td>
<td>-71.0%</td>
<td></td>
</tr>
<tr>
<td>Defense &amp; Space</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>847,901</td>
<td>3,670,438</td>
<td>-2,822,537</td>
<td>-76.9%</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>2</td>
<td>-</td>
<td>10</td>
<td>1</td>
<td>41,462</td>
<td>40,000</td>
<td>1,462</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>40,144</td>
<td>-</td>
<td>40,144</td>
<td>N/A</td>
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</tr>
<tr>
<td>Health</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>71,000</td>
<td>276,602</td>
<td>-205,602</td>
<td>-74.3%</td>
<td></td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>64,703</td>
<td>35,000</td>
<td>29,703</td>
<td>84.9%</td>
<td></td>
</tr>
<tr>
<td>IT Services</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>23,100</td>
<td>2,000</td>
<td>21,100</td>
<td>1055.0%</td>
<td></td>
</tr>
<tr>
<td>Mining &amp; Metals</td>
<td>6</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>111,965</td>
<td>113,200</td>
<td>-1,235</td>
<td>-1.1%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>4</td>
<td>17</td>
<td>8</td>
<td>443,978</td>
<td>135,912</td>
<td>308,066</td>
<td>226.7%</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>29,965</td>
<td>614,843</td>
<td>-584,878</td>
<td>-95.1%</td>
<td></td>
</tr>
</tbody>
</table>

**Total**                  | 65     | 52     | 99                  | 80     | 2,269,515| 6,025,787      | -3,756,272           | -62.3%   |          |
Michigan Technological University
Total Research Expenditures by College/School/Division
Fiscal Year 2024 & 2023
As of September 30, 2023 and September 30, 2022

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FY2024</th>
<th>FY2023</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>3,076,161</td>
<td>2,997,877</td>
<td>78,284</td>
<td>2.6%</td>
</tr>
<tr>
<td>Advanced Power Systems Research Center (APSRC)</td>
<td>356,882</td>
<td>281,331</td>
<td>75,551</td>
<td>26.9%</td>
</tr>
<tr>
<td>College of Business</td>
<td>278,689</td>
<td>330,646</td>
<td>(51,957)</td>
<td>-15.7%</td>
</tr>
<tr>
<td>College of Computing</td>
<td>1,066,730</td>
<td>914,928</td>
<td>151,802</td>
<td>16.6%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>7,683,329</td>
<td>7,122,208</td>
<td>561,121</td>
<td>7.9%</td>
</tr>
<tr>
<td>College of Forest Resources &amp; Environmental Science</td>
<td>1,538,123</td>
<td>1,748,679</td>
<td>(210,556)</td>
<td>-12.0%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>3,306,606</td>
<td>3,403,327</td>
<td>(96,721)</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Great Lakes Research Center (GLRC)**</td>
<td>448,404</td>
<td>400,530</td>
<td>47,874</td>
<td>12.0%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>1,621,536</td>
<td>1,619,323</td>
<td>2,213</td>
<td>0.1%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>2,701,049</td>
<td>2,767,981</td>
<td>(66,932)</td>
<td>-2.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22,077,509</strong></td>
<td><strong>21,586,830</strong></td>
<td><strong>490,679</strong></td>
<td><strong>2.3%</strong></td>
</tr>
</tbody>
</table>

*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.
C. Advancement & Alumni Relations
2023-2024 Goals and Initiatives to be achieved in collaboration with administrative and academic leadership and the Michigan Tech Fund Board of Directors.

- Paramount focus on Donor Integrity
  - Invest in each segment of the donor journey and facilitate a strategic opportunity to match the donor’s passion
  - Utilize Flagship Campaign themes and material to jump-start new leadership gift donor relationships and facilitate acceleration of the ask in existing donor work
- Add new constituents and increase movement in the donor pipeline
- Launch and implement CRM
- Enhance donor impact and stewardship
- Get to 45% of the $350 million campaign goal

FY24 MTF Working Goals

- “The Year of Execution” on a Strong Foundation
  - Donor First: Culture supported by processes, practices and people
  - Campaign Execution: Provide oversight and resources for a successful campaign
  - Cash Flow Management: Execute and enhance cash flow
  - Endowment Growth: Higher emphasis on endowment gifts

Highlights

- Over $155 million in philanthropic contributions and currently 44% to the $350 million goal
- Raised $7.43 million, 17% of the $42.85 million goal (as of October 31, 2023)
- $31 million outstanding asks from individuals
- Raised nearly $2.8 million for the endowment
- Campaign:
  - Hosted Campaign Executive Committee meeting on campus, October 14, 2023
  - Hosted campaign dinner, Saratoga, CA, October 30, 2023
  - Initiative working groups are getting to work with plans to report out at the next CEC meeting on January 22, 2024
    - Endowment Education and Growth Initiative
    - Principal Gifts ($1MM or more)
    - Cornerstone Gifts ($100,000 to $999,999)
    - Corporate and Foundation Acceleration
    - Volunteer Engagement
    - Pay Forward Culture
- Organizational
  - New hires: Senior Administrative Assistant, Advancement and Gift Planning
  - Vacant positions:
    - Ongoing searches for Director for Charitable Giving (two open positions)
    - Advancement and Alumni Engagement Business Systems Analyst/Data Visualization Specialist
- Hosted representatives from the Thompson Foundation on campus to visit with scholarship recipients
- Hosted trustees of the McAllister Foundation on campus (one of our longest standing philanthropic partnerships)
- Hosted Backstage Jazz event at the Rozsa Center
Hosted Time & Talent cohort this past October

CRM installation

Fundraising totals as of October 31, 2023

- $4.6 million in planned gifts
- $945,000 in realized planned gifts
- $846,000 in major outright gifts and pledges
- $640,000 in annual gifts under $10,000
- $890,000 in corporate support
- $390,000 in foundation gifts
- 49 illustrations, proposals, and gift agreements were provided for donors

Principal Giving

FY 24 Finalized Gifts - Verbal

- Finalized an $8+ mm estate gift for scholarships for the College of Sciences and Arts, with an emphasis on Physics, Chemistry and Mathematics.
- Finalized a $3 million outright gift to benefit scholarship and research.

FY24/FY25 Pending Gifts

- We are working with a CoE alum on seven-figure gifts of active mineral interests and the Athletics Department for support of programs.
- Working on over $5 million gifts to benefit the Husky Child Care initiatives and possibly student counseling services, CoB for the Center for Convergence and Innovation Building, the ECE Department to support an endowed faculty position and an endowed faculty position and scholarship in Civil, Environmental, and Geospatial Engineering.

Principal Giving Travel

VP of Advancement and Alumni Engagement and/or AVP Principal Giving

- Week of 12/1 - SE Coast
- Week of 12/18 - Minnesota
- Week of 1/29 - Florida
- Week of 3/11 - Florida
- Week of 4/1 - East Coast

FY24 Upcoming Campaign Events

- Donor hosted dinners
  - Naples, FL - March 2024
  - Venice FL - March 2024
  - Armonk, NY - April 2024
  - Dollar Bay, MI - TBD

Principal Gifts Execution Committee

- Working with CCS to fine-tune the wealth, likelihood and ability of the top 70 fiends/alumnis who are rated as potential $1 million+ donors.
**Advancement and Gift Planning**

**Activity:**
- The Flagship campaign Cornerstone Initiative is underway and working to recruit new volunteers.
- Working with CEC volunteers to train, identify and coordinate donor visits and create an initiative scorecard for volunteer contributions.
- Deans and Campus Units' collaborative meetings held in August focused on transitioning new interim dean fundraising plans for FY24 and other campus partner support.
- The Charitable Giving and the Corporate and Foundation Relations (CFR) teams are working with donors and campus partners on several naming opportunities.
- The CFR team has again provided significant support for the Fall Career Fair.
- Collaborative donor visits with Dean Morse to Minneapolis and Lower Michigan.
- Hosted representatives from the Thompson Foundation Foundation and trustees of the McAllister Foundation during campus visits.

**Alumni Engagement & Annual Giving**

**Events**
- The Alumni Engagement Office (AE Office) has already hosted ~40 alumni events this year, in 10 different states, in partnership with 30+ alumni hosts (10 of whom are brand new alumni event hosts).
- This December, the AE Office was excited to continue the “holiday blitz” tradition with alumni parties hosted across the country, bringing alumni & friends together to celebrate the holiday season.
- GLI 2023: continuing our alumni social tradition before Thursday’s afternoon game, this time at the MTU-designated local bar in Grand Rapids, Peppinos. The Alumni Board of Directors are co-hosting the pregame on Thurs Dec. 28 with the Alumni Engagement Office with 217 registrants are set to attend.

**Communications**
- Our calendar year end appeals are scheduled during “giving season” aka holiday season
  - Emails, text message, digital boosts began for #GivingTuesday: 11/28
  - Direct mail, emails, text messages: 12/20-12/31
- We continue to see our mass text messaging perform above industry benchmarks.

**Volunteerism**
- The AE Office hosted the first Time & Talent cohort in early October..
  - Each alumnus in the cohort had a custom itinerary where they guest lectured in a variety of classes, met with various student orgs and faculty/staff in between, and enjoyed the camaraderie of being back on campus together.
  - This unique volunteer opportunity fills an important gap we had in our volunteer offerings – we have historically provided a variety of one-off opportunities, or long-term leadership commitments, and this offers something in between. We look forward to hosting a new cohort of talented alumni on the roster (some returning!) in Spring Semester 2024.
- Our Alumni Board of Directors continues to be busy in a variety of initiatives in partnership with the AE Office:
  - Recruiting new Directors - the Board is reviewing nominations and interviewing candidates for a new slate that will begin a 6-year term of service on July 1, 2024.
  - Alumni Awards 2024: Nominations for the 5 annual Alumni Awards are still open! The Alumni Board will review and select recipients at their Winter Carnival 2024 meetings.
  - Alumni Resource Matchmaking: The Alumni Board has a tradition of supporting student organizations and initiatives through the Student Initiative Support Program (SISP). Last year, the Board expanded SISP into a new program, known as the Alumni Resource Matchmaker (ARM), and kicked off with a crowdfunding campaign that ran in April. ARM provides the
broader community an opportunity to support select student organizations financially through a crowdfunding campaign.

■ The Board reviews applications from RSOs throughout the year and selects qualifying student organizations to participate in ARM. This year, the ARM crowdfunding campaign for 6 select student organizations ran December 6-13:

- Arnold Air Society
- IRHC Broomball
- Men's and Women's Rugby Club
- Men's Club Volleyball
- Snowboard Racing Team
- Sound and Light Services
D. Media Coverage
Media Report: Sept 16 to Nov. 30, 2023
Michigan Technological University
Regular Meeting of the Board of Trustees
Dec. 15, 2023

Overview

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>6,509</td>
</tr>
<tr>
<td>Total engagement</td>
<td>~ 51.4K</td>
</tr>
<tr>
<td>Average engagement</td>
<td>7</td>
</tr>
<tr>
<td>Journalist shares</td>
<td>307</td>
</tr>
<tr>
<td>Journalist reach</td>
<td>~ 9.66M</td>
</tr>
<tr>
<td>Average unique visitors per month (UVM)</td>
<td>~ 1.35M</td>
</tr>
<tr>
<td>Total UVM</td>
<td>~ 8.81B</td>
</tr>
</tbody>
</table>

Between Sept. 16 and Nov. 30, 2023, a total of 6,509 online articles mentioned Michigan Technological University:

Those 6,509 articles were shared, commented on, or liked on social media roughly 51,400 times, for an average engagement of 7 shares, comments, or likes per article:
Journalists shared the articles on X(Twitter) 307 times, resulting in a reach of roughly 9.66 million people:
News Highlights:

Research News

Tara Bal (CFRES/ESC) was quoted by the New York Times in a story listing five places to see outstanding fall colors this year. Bal commented on how stress can affect a tree’s autumn leaf colors.

Paul van Susante (ME-EM) was quoted by Forbes in a story about development and testing of Lockheed Martin’s inflatable space habitat, made of a strong, light and flexible polymer yarn that’s comparable to Kevlar and 10 times stronger than aluminum. Van Susante commented on the efficiency of inflatables in space travel, prior testing and applications, and design considerations for future applications.

The Detroit News mentioned Michigan Tech in coverage of more than $3.6 million in funding for semiconductor training at multiple state universities announced by the state on Monday, Oct. 23.

Rolf Peterson (CFRES) was quoted by the Detroit News, Bridge Michigan, Detroit News, Michigan Radio, Alpena News, Great Lakes Echo and the Mining Journal in a story discussing whether a wolf hunt should be allowed in Michigan if the species is removed from the federal endangered species list. The story was picked up from Michigan State University’s Spartan Newsroom.

CBS News and Reuters referenced Michigan Tech’s Earthquake Magnitude Scale in a story about the high likelihood of a volcanic eruption near Iceland’s town of Grindavik after more than 1,500 earthquakes were recorded nearby on Tuesday and Wednesday (Nov. 14-15).

The Michigan Business Network picked up a Michigan Economic Development Corporation announcement about a $100,000 Mobility Public-Private Partnership & Programming (MP4) Grant awarded to Michigan Tech to establish a drone operator training program. The funding was part of a total $775,000 awarded to MTU, Western Michigan University, and the University of Michigan.

The Mining Journal, WNMU-FM, Daily Mining Gazette and Michigan Business Network picked up a Michigan Economic Development Corporation press release announcing a $838,000 grant awarded to Michigan Tech to expand semiconductor education and training programs across the Upper Peninsula and respond to Michigan’s increased demand for skilled technicians and engineering professionals in the semiconductor industry.

Roman Sidortsov (SS) was quoted in a BBC story exploring companies’ reasons for continuing to operate in Russia, despite its invasion of Ukraine.

Technologies Office of the first-round winners for the Innovating Distributed Embedded Energy Prize (InDEEP) — including a joint team from Michigan Tech and Arizona State University.

Kuilin Zhang (CEGE) and Jim Baker (VPR) were quoted by UPWord in a story about DRIFT, a research project awarded $1.2 million by the U.S. Department of Energy to model a low-carbon, intermodal freight transportation system of the future. The project was the subject of a Michigan Tech News story.

Ezra Bar-Ziv (ME-EM/APSRC) was quoted by Scrap Monster, Waste & Recycling and Nasdaq in a press release announcing a $600,000 grant from the Reducing Embodied Energy and Decreasing Emissions (REMADE) Institute to a polymer recycling technology research partnership between Michigan Tech, the University of Wisconsin-Madison and polyolefins and biopolymers producer Braskem. The release was picked up from Business Wire.

General News

Fast Company mentioned Michigan Tech in an article sharing tips on how companies can attract young tech professionals.

Forbes mentioned Michigan Tech as one of only four colleges in the nation rated “good” for free speech by the Foundation for Individual Rights and Expression (FIRE).

The Fort Worth Star-Telegram profiled Michigan Tech as No. 15 on Stacker’s list of four-year public colleges with the best return on investment. Stacker’s rankings were picked up by more than 80 outlets nationwide.

MLive and Crain’s Detroit Business mentioned Michigan Tech in a story about Smart Asset’s most recent list of “Best Value Colleges.” MTU was ranked as the second-highest best value in Michigan, behind only the University of Michigan-Ann Arbor. Tech’s starting salary, near $71,000, was described as “near the top of all schools on the list.”

Michigan Tech undergrad Alexander Kwapisz (electrical engineering) was quoted by the Wall Street Journal in a story highlighting unexpected heavyweights among the WSJ’s list of top schools for salary impact — how much a college boosts salaries earned by students after graduation. The list ranked MTU 12th overall in the nation and second-highest for public universities. The story was picked up by MSN.

The ‘Gander mentioned Michigan Tech in a listicle featuring the best small Michigan towns to spend a winter’s day in. Houghton was included in the piece, and Winter Carnival was named as the city’s can’t-miss winter event.

Jay Meldrum (GTRC) and Tim Havens (CS/ICC/GLRC) were quoted by MyNorth.com in a story about Michigan Tech’s expanding presence for research, education and business development in Traverse City.
**Crain’s Detroit Business** mentioned Michigan Tech in a story about Sterile State, a new company based in Hancock that's using an innovative sterilization process for newly manufactured medical instruments. The company is a new incarnation of a previous venture, FM Wound Care, which spun off from Tech in 2016.

**MLive** mentioned Michigan Tech in a story comparing fall 2023 enrollments at Michigan colleges to state and national trends. MTU was highlighted as one of three universities in the state to see positive growth over the last decade.

**WLUC TV6** mentioned Michigan Tech in a tribute story remembering Ray Kestner ’55 (B.S. Civil Engineering), who died Nov. 7. Kestner was a recipient of MTU’s Distinguished Service Award in 1988. He met his wife Janet at Tech, and their seven children were Huskies as well.

Marina Stack and Breann Baker (both ADM) appeared in a segment aired by **FOX 2 Detroit** about the Next Gen STEM Festival, held at the Lexus Velodrome in Detroit on National STEM Day (Nov. 8). The Michigan Tech Mind Trekkers’ musical banana piano also made an appearance. **WXYZ Detroit** also mentioned Michigan Tech in a story about the Next Gen STEM Festival.

Jenna Lane (Career Services) was quoted by **WLUC TV6** in a story about Michigan Tech’s fall 2023 Career Fair, held Tuesday (Sept. 19) with 376 employers in attendance. MTU undergraduate Nathaniel Vogler (marketing) and alumna Katie Amar-Fox ’19 (B.S. Materials Science and Engineering) were also quoted in the story.

**WLUC TV6** and **WNMU-FM** covered more than $3.4 million in economic development funds awarded to MTEC SmartZone — part of over $73 million in support for state entrepreneurial hubs announced last week by Gov. Gretchen Whitmer. Another recipient was Michigan Tech partner 20Fathoms in Traverse City, according to the **Ticker**.

The **Detroit Free Press**, **MSN** and **Yahoo! News** mentioned Michigan Tech in stories about Houghton being named one of the nation’s top 15 off-the-beaten-path vacation destinations.

The **Detroit News** covered Michigan Tech hockey goaltender Blake Pietila’s record-breaking 59th career victory in goal — the most by any Husky netminder.

Erin Smith (HU) was quoted by the Daily Mining Gazette, **WLUC TV6**, **ABC 10**, **Keweenaw Report** and **WJMN Local 3** in stories about this year’s 41 North Film Festival at Michigan Tech, which occurred from Nov. 2-5 at the Rozsa Center for the Performing Arts. The **Gazette** and the **Mining Journal** also mentioned Robert Schneider (Math) in a story about a particular documentary, “The Elephant 6 Recording Co.,” which screened at the festival.

**WNMU-FM** covered the Higher Learning Commission’s approval of Michigan Tech’s new bachelor’s degree in nursing.
E. Employee Safety Statistics
## Employee Safety Statistics Year-to-Date

### Jan - Oct 2022/2023 Year to Date

<table>
<thead>
<tr>
<th>Category</th>
<th>Years</th>
<th>Employee Classification</th>
<th>AFSCME</th>
<th>Faculty</th>
<th>Non-Exempt</th>
<th>POA</th>
<th>Professional</th>
<th>Temporary</th>
<th>UAW</th>
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<td><strong>Injury Only w/Medical - No Lost Time</strong></td>
<td>2022</td>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
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<td>2</td>
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<td><strong>Lost Time Cases</strong></td>
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<td>5</td>
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<td>0</td>
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<td>9</td>
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<tr>
<td></td>
<td>2023</td>
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<td>2</td>
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<td><strong>Restricted Work Cases</strong></td>
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<td>0</td>
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<td>0</td>
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<td>1</td>
<td>0</td>
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<td>0</td>
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<tr>
<td><strong>Occupational Safety and Health Administration (OSHA) Recordable Injuries (Total of above)</strong></td>
<td>2022</td>
<td></td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
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<td>12</td>
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<td></td>
<td>2023</td>
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<td>5</td>
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<td><strong>Injury Lost Time</strong></td>
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<td></td>
<td>171</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>44</td>
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<td>2023</td>
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<td><strong>Restricted Work Days</strong></td>
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<td></td>
<td>2023</td>
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<td>0</td>
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<tr>
<td><strong>Total Work Hours</strong></td>
<td>2022</td>
<td></td>
<td>196,135</td>
<td>589,752</td>
<td>65,133</td>
<td>13,825</td>
<td>922,330</td>
<td>60,383</td>
<td>122,150</td>
<td>1,969,708</td>
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<td></td>
<td>2023</td>
<td></td>
<td>205,299</td>
<td>599,812</td>
<td>68,724</td>
<td>14,041</td>
<td>977,419</td>
<td>61,581</td>
<td>130,798</td>
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<tr>
<td><strong>Percentage of Work Hours</strong></td>
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<td></td>
<td>10.0%</td>
<td>29.9%</td>
<td>3.3%</td>
<td>0.7%</td>
<td>46.8%</td>
<td>3.1%</td>
<td>6.2%</td>
<td>100.0%</td>
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<tr>
<td></td>
<td>2023</td>
<td></td>
<td>10.0%</td>
<td>29.2%</td>
<td>3.3%</td>
<td>0.7%</td>
<td>47.5%</td>
<td>3.0%</td>
<td>6.4%</td>
<td>100.0%</td>
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<td><strong>Lost Time Case Rate</strong></td>
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<td>5.1</td>
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<td>0.0</td>
<td>0.7</td>
<td>3.3</td>
<td>0.0</td>
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<td></td>
<td>2023</td>
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<td>1.9</td>
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<td>0.0</td>
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<tr>
<td><strong>Frequency Rate</strong></td>
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<td></td>
<td>7.1</td>
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<td>0.0</td>
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<td></td>
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<td>4.9</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.7</td>
</tr>
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</table>

OSHA has established specific calculations that enable the University to report the Recordable Injuries, Lost Time Case Rates and Frequency Rates. The Standard Base Rate (SBR) calculation is based on a rate of 200,000 labor hours which equates to 100 employees who work 40 hours per week for 50 weeks per year. Using the SBR allows the University to calculate their rate(s) per 100 employees.

1. The Lost Time Case Rate is calculated by multiplying the number of Lost Time Cases by 200,000 then dividing by the labor hours at the University for the year.
2. The Frequency Rate is calculated by multiplying the number of recordable cases by 200,000 then dividing by the labor hours at the University for the year.
3. The number of days are total days for the life of the cases first reported during this period.

The Bureau of Labor Statics 2021 Injury, Illness, and Fatalities, Table 1 reports for Colleges and Universities; the average LOST TIME CASE RATE of days away from work was 0.6 and the average FREQUENCY RATE was 1.4.
F. Disposal of Surplus Property
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/08/23</td>
<td>2007 Ford Escape XLT</td>
<td>$175.00</td>
</tr>
<tr>
<td>09/20/23</td>
<td>Vibration Isolation Table, Minus K, 250BM-1, WS-4 Stand</td>
<td>400.00</td>
</tr>
<tr>
<td>09/20/23</td>
<td>Vibration Isolation Table, Minus K, 100BM-1, WS-4 Stand</td>
<td>400.00</td>
</tr>
<tr>
<td>09/20/23</td>
<td>Nanoindenter System, Nanomechanics Inc, iNano</td>
<td>5,690.00</td>
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<tr>
<td>09/20/23</td>
<td>Microprobe, Nanomechanics Inc, InSEM HT III</td>
<td>18,500.00</td>
</tr>
<tr>
<td>09/26/23</td>
<td>Bench Press/Tricep Dip, Hammer Strength</td>
<td>500.00</td>
</tr>
<tr>
<td>09/26/23</td>
<td>Hack Squat, Cybex</td>
<td>500.00</td>
</tr>
<tr>
<td>09/26/23</td>
<td>Iso Behind Neck Press, Hammer Strength</td>
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</tr>
<tr>
<td>10/05/23</td>
<td>South Bend 7 Inch Metal Shaper</td>
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<td>10/05/23</td>
<td>Lincoln Motors Industrial Duty 100 hp Electric Motor</td>
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</tr>
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<td>10/05/23</td>
<td>iPhone XR</td>
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</tr>
<tr>
<td>10/05/23</td>
<td>Transfer Molding Press, Hull Corporation</td>
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<tr>
<td>10/05/23</td>
<td>Husky Concession Trailer, 8x24 Extreme</td>
<td>33,000.00</td>
</tr>
<tr>
<td>10/05/23</td>
<td>500GB Hard Drives (Approx. 600, sold in lots)</td>
<td>59.00</td>
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<tr>
<td>10/06/23</td>
<td>Cable Crossover Machine, Cybex, 5649-90</td>
<td>500.00</td>
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<tr>
<td>10/06/23</td>
<td>Leg Extension Machine, FreeMotion/Epic, GZFl8013</td>
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<tr>
<td>10/10/23</td>
<td>Incline Trainer Treadmill, FreeMotion, i11.9</td>
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<tr>
<td>10/10/23</td>
<td>Lot of four computers, one laptop</td>
<td>6,500.00</td>
</tr>
<tr>
<td>10/24/23</td>
<td>Miscellaneous scrap metal</td>
<td>180.60</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>$ 68,023.10</strong></td>
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