MICHIGAN

OFFICE OF THE AUDITOR GENERAL

AUDIT REPORT

PERFORMANCE AUDIT
OF

MICHIGAN TECHNOLOGICAL UNIVERSITY

September 2005

THOMAS H. MCTAVISH, C.P.A.
AUDITOR GENERAL

33-160-03

"...The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof."

– Article IV, Section 53 of the Michigan Constitution

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Michigan

Office of the Auditor General

REPORT SUMMARY

Performance Audit

Michigan Technological University

Report Number:
33-160-03

Released:
September 2005

Michigan Technological University is located in the city of Houghton and offers various programs through its five colleges and schools. The University's vision is to become a national institution of choice. The University as a whole is accredited by the North Central Association of Colleges and Schools and the University's colleges and schools are accredited by various accrediting bodies.

Audit Objective:
To assess the effectiveness of the University's monitoring of academic and related programs provided to students.

Audit Conclusion:
We concluded that the University was generally effective in its monitoring of academic and related programs provided to students.

Noteworthy Accomplishments:
The University offers a unique, proactive educational experience to undergraduates through its Enterprise Program. The Enterprise Program gives teams of students the opportunity to work in a business-like setting to solve problems supplied by industry.

Reportable Conditions:
The University needs to improve its monitoring of repetitive course enrollments (Finding 1).

The University did not complete periodic reviews of academic programs (Finding 2).

The University had not assimilated and evaluated data related to student retention (Finding 3).

The University had not established uniform departmental academic advising practices designed to help undergraduate students progress toward completion of degree programs (Finding 4).

The University had not identified the cause for students rating faculty teaching performance at below satisfactory levels or developed corrective action plans as appropriate (Finding 5).

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Audit Objective:
To assess the effectiveness and efficiency of the University's use of resources allocated to support academic and related programs.

Audit Conclusion:
We concluded that the University was generally effective and efficient in its use of resources allocated to support academic and related programs.

Noteworthy Accomplishments:
The University is a national leader in both invention disclosures and licenses executed per $10 million in research expenditures. In 2002, the University joined the newly formed Michigan Tech EnterPrise SmartZone. The purpose of the Michigan Tech EnterPrise SmartZone is to foster the creation of high-tech jobs and economic development through the commercialization of intellectual properties of State-supported universities. In 2005, one of the Michigan Tech EnterPrise SmartZone companies was named SmartZone Company of the Year.

Reportable Conditions:
The University needs to continue consolidating printing services and centralizing the purchase of printing equipment, copying machines, and paper products (Finding 6).

The University had not developed a formal policy addressing minimum class enrollment standards and requirements for exceptions (Finding 7).

The University did not appropriately allocate administrative costs to its auxiliary activities (Finding 8).

The University did not institute and enforce sabbatical leave requirements (Finding 9).

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Agency Response:
Our audit report contains 9 findings and 9 corresponding recommendations. The University's preliminary response indicated that it agrees with all 9 recommendations.

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A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: http://audgen.michigan.gov

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THOMAS H. MCTAVISH, C.P.A.
AUDITOR GENERAL

September 13, 2005

Mr. Michael C. Henricksen, Chair
Board of Control
and
Dr. Glenn D. Mroz, President
Michigan Technological University
Houghton, Michigan

Dear Mr. Henricksen and Dr. Mroz:

This is our report on the performance audit of Michigan Technological University.

This report contains our report summary; description of agency; audit objectives, scope, and methodology and agency responses and prior audit follow-up; comments, findings, recommendations, and agency preliminary responses; various exhibits, presented as supplemental information; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from Michigan Technological University's responses subsequent to our audit fieldwork. Annual appropriations acts require that the audited institution develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during this audit.

Sincerely,

Thomas H. McTavish, C.P.A.
Auditor General

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Description of Agency

Michigan Technological University began as the Michigan Mining School in 1885. The Legislature founded the school to meet the need for mining engineers and metallurgists. During the next 50 years, it achieved worldwide standing in the field of mining engineering. In 1927, the Legislature changed the name of the school to the Michigan College of Mining and Technology and broadened its scope to include all the leading fields of engineering, science, and technology. In 1964, the name was changed to Michigan Technological University.

The University's main campus is located along Portage Lake in the city of Houghton. In addition to the facilities in Houghton, the University owns and operates the Ford Forestry Center of Alberta, which is 40 miles south of Houghton, and several other research facilities in the Houghton area.

The University's mission* is to prepare students for the future. The University's vision is to become a national institution of choice. As such, the University believes that it must transform its traditionally narrow technological core competencies into science, technology, and business competencies and continue to blend research and scholarship together with education and innovation into a new learning environment.

The University has 2 colleges, which consist of 20 departments, and 3 schools, which offer 15 academic programs. For academic year 2002-03, these colleges and schools offered 12 certificates, 6 associate degree programs, 44 minor degree programs, 34 baccalaureate degree programs, 25 master's degree programs, and 18 doctoral degree programs.

The University, as a whole, is accredited by the North Central Association of Colleges and Schools, and the University's colleges and schools are accredited by various accrediting bodies.

The University is governed by an eight-member Board of Control appointed by the Governor with the advice and consent of the Michigan Senate. Members of the Board of Control are appointed for eight-year terms.

* *See glossary at end of report for definition.*

During spring semester 2003, the University had 6,239 students enrolled. As of June 30, 2003, the University had 398 full-time and 62 part-time faculty members and 841 full-time and 769 part-time administrative and support personnel. For the fiscal year ended June 30, 2003, the University had revenues of $158.0 million (see Exhibit 1) and expenses of $159.4 million (see Exhibit 2).

Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up

Audit Objectives

Our performance audit* of Michigan Technological University had the following objectives:

1. To assess the effectiveness* of the University's monitoring of academic and related programs provided to students.

2. To assess the effectiveness and efficiency* of the University's use of resources allocated to support academic and related programs.

Audit Scope

Our audit scope was to examine the program and other records of Michigan Technological University. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

As part of our audit and from information compiled by the University, we prepared supplemental information (Exhibits 1 through 5) that relates to our audit objectives. Our audit was not directed toward expressing an opinion on this information and, accordingly, we express no opinion on it.

A public accounting firm engaged by the University annually audits the University's financial statements.

Audit Methodology

Our audit procedures, conducted from May through August 2003, included examination of the University's records and activities primarily for the period July 1, 2000 through August 31, 2003.

We conducted a preliminary review of the University's operations to formulate a basis for defining the audit scope. Our review included interviewing University personnel, reviewing applicable policies and procedures, analyzing available data and statistics,

* *See glossary at end of report for definition.*

reviewing reference materials, and obtaining an understanding of the University's management control* and operational and academic activities.

To accomplish our first objective, we evaluated the University's procedures related to academic progress*, including admission requirements and the provision of advisory and other needed services to students. We analyzed the strategy utilized by the University to attract potential students to the University, and we reviewed the University's practices relating to repetitive course enrollments*, student retention, and graduation trends. Also, we examined the University's methods for ensuring the quality of its academics, including performing program reviews* and making changes to those programs as needed. We determined the extent to which the University used student and employer surveys and advisory committees to evaluate the effectiveness of programs. In addition, we evaluated the University's methods for ensuring the clarity of the speech and overall effectiveness of its teaching faculty.

To accomplish our second objective, we assessed the efficiency of the University's use of resources by analyzing data related to minimum class enrollment*; classroom and laboratory utilization; and faculty usage, including work loads, overload classes, sabbatical leaves, and nonclassroom expectations. We analyzed graduate school* tuition rates and evaluated their financial impact on the University. We evaluated the University's allocation of general fund* administrative costs to auxiliary activities*, analyzed auxiliary activity billing rates, assessed the usage of the University's motor vehicle fleet, and reviewed the University's effort to centralize printing operations. Also, we reviewed the University's contracting process for capital outlay construction projects and evaluated the controls used to monitor various stages of construction for projects in progress from April 1, 1999 through June 30, 2003.

Agency Responses and Prior Audit Follow-Up

Our audit report contains 9 findings and 9 corresponding recommendations. The University's preliminary response indicated that it agrees with all 9 recommendations.

The agency preliminary response that follows each recommendation in our report was taken from the University's written comments and oral discussion subsequent to our audit fieldwork. Annual appropriations acts require the principal executive officer of the audited institution to submit a written response to our audit to the Auditor General, the House and Senate Fiscal Agencies, and the State budget director. The response is due

* *See glossary at end of report for definition.*

within 60 days after the audit report has been issued and should specify the action taken by the institution regarding the audit report's recommendations.

We released our prior performance audit of Michigan Technological University (#3316092) in April 1993. Within the scope of this audit, we followed up 17 of the 31 prior audit recommendations. The University complied with all 17 prior audit recommendations.

COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

MONITORING OF ACADEMIC AND RELATED PROGRAMS

COMMENT

Audit Objective: To assess the effectiveness of Michigan Technological University's monitoring of academic and related programs provided to students.

Conclusion: We concluded that the University was generally effective in its monitoring of academic and related programs provided to students. However, we noted reportable conditions* related to repetitive course enrollment, program reviews, student retention, academic advisory practices, and faculty performance (Findings 1 through 5).

Noteworthy Accomplishments: The University offers a unique, proactive educational experience to undergraduates of all disciplines through its Enterprise Program. The Enterprise Program, developed during fall semester 2000, gives teams of students from varied disciplines the opportunity to work in a business-like setting to solve problems supplied by industry. Since its inception, the Enterprise program has grown to include over 400 students through the operation of 17 different enterprises. Operating in partnership with industry and government, 12 different companies supply financial and material resources, as well as their expertise, to students enrolled in the Enterprise Program.

FINDING

1. Repetitive Course Enrollment

   The University needs to improve its monitoring of repetitive course enrollments.

   Generally, repetitive enrollments indicate a lack of academic progress and result in an inefficient use of resources. Increased efforts to monitor repetitive course enrollments would provide the University with the opportunity to identify and counsel students who are not progressing satisfactorily. Also, because the tuition paid by students represents only a portion of the total costs of enrolling in a course, allowing students to repetitively enroll in the same course is an inefficient use of State appropriations and University resources.

* *See glossary at end of report for definition.*

We analyzed the repetitive enrollments of students enrolled in courses during fall semester 2000 through spring semester 2003. Our analysis disclosed 315 instances (representing 286 students) of students who enrolled in the same course three or more times. Our review of the entire academic history for 22 of these students disclosed that, as of the end of spring semester 2003, they had repeated 47 courses a total of 120 times.

University policy allows only students who received a course grade below a 2.0 (on a 4.0 scale) to repeat the course two times without staff approval. If the student wants to attempt the course a third time, the student must have the approval of their academic advisor and the Dean of Student Affairs.

RECOMMENDATION

We recommend that the University improve its monitoring of repetitive course enrollments.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that it will continue to monitor this issue in order to get a better understanding of why students repeat courses. The University believes that the issue will decline considerably in importance as students pay for the courses on a per credit hour basis. The University stated that many of the repeated courses were in advanced mathematics and basic science, courses that provide a necessary foundation for students' future success in the University's highly challenging programs.

FINDING

2. Program Reviews

The University did not complete periodic reviews of academic programs.

Program reviews cause University departments to interact with faculty and staff on student outcomes and subsequently identify expected student performance results, develop methods to measure accomplishments, and create formats to accumulate student performance data. Also, development and implementation of program review recommendations is imperative for pursuing program enhancements and correcting identified deficiencies.

The University had not completed any program reviews since its most recent accreditation (1998) and had initiated program reviews in only three departments at the time of our audit.

The University's 1998 accreditation process recommended that the University continue its newly established schedule of periodic reviews of academic programs. The University implemented a policy for conducting departmental/school program reviews on a five- or six-year cycle. The policy includes seven mandated due dates for completion of various aspects of the review and requires the Provost's approval prior to implementing recommendations.

The University stated that it could not implement the program review process earlier because of the University's transition from a quarterly to a semester academic school year. Also, University staff reported that reduced staffing and budget constraints further delayed the program review process.

RECOMMENDATION

We recommend that the University complete periodic reviews of academic programs.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that while the North Central Association of Colleges and Schools (NCA) suggested that the University institute this practice, it was not a required activity by NCA (the University's accrediting body). The University also informed us that it has completed the delayed reviews, as well as others. The University further informed us that in one case, the program review helped it decide to open a new Ph.D. program. The University stated that as it has gained experience with program reviews, it has begun to conclude that these reviews are best for programs not accredited by a professional accreditation body.

FINDING

3. Student Retention

The University had not assimilated and evaluated data related to student retention.

The University used an exit survey to identify why students left the University. However, analysis of the survey information was fragmented by department and was not utilized to develop an overall strategy to increase retention.

The University's first to second year retention rate for academic school year 2002-03 of 78% was generally below that experienced at other comparable research universities. For example, we noted the following first to second year retention rates: 88% at Michigan State University and Georgia Institute of Technology, 92% at Carnegie Mellon University, and 95% at the University of Michigan. Also, the University's first to third year retention rates decreased from 75% to 67% between academic school years 1998-99 and 2002-03 and was generally below rates experienced at other research universities we reviewed.

In an effort to retain students, the University established a program for first year students that addressed a number of issues associated with student retention. However, the University did not employ similar programs for students enrolled in their second year or beyond. The University could explore a number of alternatives in an effort to increase retention, including:

a. Enhancing advising services.

b. Expanding departmental program reviews of educational quality to ensure successful student outcomes.

c. Expanding opportunities for diverse learning experiences outside the classroom.

d. Increasing minority representation within the student population, staff, and faculty.

e. Developing a cooperative education experience to facilitate students' involvement in the community.

Assimilating and evaluating data related to student retention rates will help the University determine which of these or other retention efforts are most suitable for the University.

RECOMMENDATION

We recommend that the University assimilate and evaluate data related to student retention.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that since the audit, its retention rate has improved 1%. The University stated that it recently implemented a new early identification system hoping to introduce students to University services that they need in the first semester.

Also, the University informed us that one of the many changes that it has made since the audit was the hiring of a vice president for student affairs to coordinate admissions, marketing, enrollment management, student life, and alumni relations activities. The University stated that this allows for a consistent message to be communicated to prospective students, students, and alumnus.

Further, the University informed us that it has begun to look at student retention beyond the first to second year. For example, the University stated that it is considering ways to increase the use of the University's Learning Centers by students who have completed at least two years of college.

In addition, the University informed us that it appreciated the Office of the Auditor General's acknowledgement of the University's peers outside the State of Michigan. However, the University stated that in-state students pay only one quarter of the actual cost of their education at the Georgia Institute of Technology. The University indicated that the ratio is reversed in Michigan and suggested that perhaps this difference contributes to the Georgia Institute of Technology's somewhat better retention rate.

FINDING

4. Academic Advisory Practices

The University had not established uniform departmental academic advising practices designed to help undergraduate students progress toward completion of degree programs.

Having uniform departmental academic advising practices helps align academic advising with students' educational and career goals consistent with the University's mission to prepare students for the future.

The University stated that academic advising is an essential component of the University's education process. Also, the University believes that the primary purpose of academic advising is to support students in the development of an academic career complementary to individual life goals. Further, the University stated that academic advisors should assist students by helping them to identify and assess educational and career alternatives and the consequences of their decisions.

We reviewed aspects of 12 departments' academic advising practices and noted:

a. Eight (67%) departments did not have definitions of what academic advising encompassed. Also, academic advising practices were not consistent among departments, including suggested frequencies for students to meet with their department academic advisors.

b. Four (33%) departments reported that they did not require undergraduate students to meet with department academic advisors after the students' freshman year. Of these 4 departments, 2 (50%) departments stated that they did not have a formal advising program. This is inconsistent with the University's stated purpose for academic advising.

c. The University's Student Planner and Handbook and the University's Undergraduate Catalog did not identify academic advising requirements for students on academic probation. In addition, 3 (25%) departments reported that they did not know if the advisor information provided in the University's Student Planner and Handbook was accurate and 1 (8%) department (the humanities department) stated that the information was not accurate.

RECOMMENDATION

We recommend that the University establish uniform department academic advising practices designed to help undergraduate students progress toward completion of degree programs.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that it has continued to improve advisor training and will be offering a Web site of critical resources for advisors during fall semester 2005. The University will be proposing this as an action project to the NCA at the University's 2006 Strategy Forum meeting. Also, the University will ask academic deans to review their documents on advising.

FINDING

5. Faculty Performance

The University had not identified the cause for students rating faculty teaching performance at below satisfactory levels or developed corrective action plans as appropriate.

Pursuing the underlying causes of faculty who perform below satisfactory levels and developing corrective action plans would allow University administration to obtain an understanding of the issues involved with these faculty members' teaching performance, document steps these faculty members should take to improve performance, and provide a means for tracking results.

The University has a well-developed process for timely and clear identification of below satisfactory teaching skills. For example, based on student evaluations, the University's Center for Teaching and Learning prepares a report of faculty members who received below satisfactory evaluations on their overall teaching skills. The Center for Teaching and Learning sends the report to the Provost and to the appropriate college or school for review. The Provost prepares a letter to each college's or school's dean requesting them to meet with the faculty member to discuss the reason for the below satisfactory evaluation and to develop a corrective action plan. The college's or school's dean is required to prepare a written response to the Provost identifying the cause for the below satisfactory evaluations and methods the faculty member and the college or school will pursue to improve performance.

We analyzed 10 faculty members whose teaching performance was rated as below satisfactory a total of 100 times by students from fall semester 1998 through spring semester 2003. Our analysis of the most recent below satisfactory evaluation for each faculty member disclosed that the college or school had not prepared written

responses for the Provost identifying the reason for the below satisfactory evaluation for 7 (70%) of these faculty members. Without these written responses, we could not determine if corrective action plans were appropriate. Also, for 2 (67%) of the 3 faculty members whose college or school did prepare responses, the college or school did not indicate how they intended to monitor the faculty member's future performance.

University staff stated that the University had not trained responsible staff regarding methods to encourage, mentor, and coach faculty on enhancing performance or developing and monitoring faculty corrective action plans.

RECOMMENDATION

We recommend that the University identify the cause for students rating faculty teaching performance at below satisfactory levels and develop corrective action plans as appropriate.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that it is in the midst of collective bargaining and negotiating its first faculty contract.

USE OF RESOURCES ALLOCATED TO SUPPORT ACADEMIC AND RELATED PROGRAMS

COMMENT

Background: The University has experienced financial difficulties in recent years. During fiscal years 2001-02 and 2002-03, the University's general fund had a decrease in net assets of $2.3 million and $1.8 million, respectively. In an effort to balance the general fund, the University has raised undergraduate tuition and student fees, made staffing cuts and left vacant positions open, dropped some academic programs, expanded international programs, and made efforts to increase graduate school enrollment. For fiscal year 2003-04, the University experienced an increase in net assets of $9.4 million.

Audit Objective: To assess the effectiveness and efficiency of the University's use of resources allocated to support academic and related programs.

Conclusion: We concluded that the University was generally effective and efficient in its use of resources allocated to support academic and related programs. We noted reportable conditions related to centralized printing services and purchasing, minimum class enrollment, cost allocations to auxiliary activities, and sabbatical leave (Findings 6 through 9).

Noteworthy Accomplishments: The University is a national leader in both invention disclosures and licenses executed per $10 million in research expenditures. Within the State, the University leads all other research universities in these categories. In 2002, the University joined the newly formed Michigan Tech EnterPrise SmartZone. The purpose of the Michigan Tech EnterPrise SmartZone is to foster the creation of high-tech jobs and economic development through the commercialization of intellectual properties of State-supported universities. In 2005, one of the Michigan Tech EnterPrise SmartZone companies was named SmartZone Company of the Year.

FINDING

6. Centralized Printing Services and Purchasing

The University needs to continue consolidating printing services and centralizing the purchase of printing equipment, copying machines, and paper products.

Consolidating printing services would allow the University to streamline the design and printing of material and may significantly reduce equipment purchases. Centralizing the purchasing of printing equipment, copying machines, and paper products would relieve departments of the responsibility of purchasing and maintaining large volume printers, copiers, and paper products.

In November 2001, the University hired an external consultant to analyze its printing, copying, and mail services operations. The consultant criticized the University for allowing two auxiliary activity operations to compete for the University's printing business. The consultant recommended that the two operations physically move next to one another to maximize their benefits with an ultimate vision of merging the two operations. Also, the external consultant noted that a copier manufacturer had manipulated the University's procurement system to place significantly more equipment and capacity than volumes or services dictated. Further, the consultant recommended that the University centralize the purchase of printing equipment, copying machines, and paper products.

In March 2003, the University conducted its own review of campus printing and copying services. The review concluded that the University should centralize printing and centralize the purchase and use of copiers. The review estimated that the University could save an estimated $1.25 million to $1.75 million per year by implementing these recommendations.

At the time of our review, we noted:

a. The University had not surveyed users of the University's printing services to identify the needs a centralized printing operation must satisfy.

b. The University had not identified a facility to physically locate a consolidated printing service.

c. The University had not centralized the purchase of printing equipment and copying machines to ensure that the University did not continually over purchase these items.

d. The University had not centralized the purchase of paper products. University records indicated that centralizing the purchase of paper products would save the University $500,000 annually.

RECOMMENDATION

We recommend that the University continue consolidating printing services and centralizing the purchase of printing equipment, copying machines, and paper products.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that it moved communications, including the print shop, to Student Affairs. The University also informed us that the vice president of student affairs has made personnel changes, including hiring a new manager for printing services, and is currently seeking a senior manager to oversee all University communications. This senior manager will be asked to address this finding. The University further informed us that the Chairman of its Board of Control supports a thorough review of this issue. The University stated that storage space for bulk purchases continues to be an issue in executing the recommended change.

FINDING

7. Minimum Class Enrollment

The University had not developed a formal policy addressing minimum class enrollment standards and requirements for exceptions.

A formalized minimum class enrollment policy would help ensure that the University efficiently uses available resources. Such a policy would identify the minimum student enrollment for classes based on revenues and expenses associated with varying class sizes, identify factors to consider in hold/cancel determinations, identify special conditions that justify holding classes below the minimum student enrollment, identify who has the authority to approve holding low enrollment classes, and require documentation of these conditions and approvals.

Each of the University's five colleges/schools had established informal minimum class enrollment standards. The informal minimum class enrollment standard for undergraduate courses was 10 students and the informal minimum class enrollment standard for graduate school courses was 5 students. The University did not base these informal standards on a break-even analysis of financial or other pertinent information. The University informed us that college and school deans informally monitored class sizes but relied on their department chairs to justify holding a low enrollment class.

The University offered 4,223 classes during the fall semester 2002 and spring semester 2003. Our review disclosed:

a. The University held 676 (16%) classes that did not meet informal minimum class enrollment standards. The University provided our staff with a number of reasons why it held some classes below its informal minimums, such as new program offerings, expansion of programs, required courses to ensure timely student completion, and senior design projects. However, the University could not provide justification for holding 391 (58%) of the 676 low enrollment classes.

b. The University did not consider non-tuition-paying students when analyzing low enrollment classes. The University grants tuition waivers to employees, employee family members, senior citizens, graduate school students, and Peace Corps volunteers. We determined that 185 (27%) of the 676 low

enrollment classes included students who received tuition waivers, including 38 classes in which the University waived the tuition of all enrolled students. The majority of these 38 classes were graduate school classes.

c. The University did not document the reasons for holding low enrollment classes. The University provided written justification for low enrollment classes only upon our request.

d. The University did not require formal approvals for holding low enrollment classes.

RECOMMENDATION

We recommend that the University develop a formal policy addressing minimum class enrollment standards and requirements for exceptions.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that it has eliminated many of the low enrollment programs. The University stated that most Michigan universities and colleges provide free or heavily discounted tuition to senior citizens and that all universities and colleges with graduate programs provide some graduate students with stipends that include tuition. The University also informed us that it has just introduced a new process that will automatically drop courses not offered in the past three years. The University stated that limiting course offerings will, over the long term, assist the University in maintaining effective class sizes.

FINDING

8. Cost Allocations to Auxiliary Activities

The University did not appropriately allocate administrative costs to its auxiliary activities.

Without an appropriate allocation of administrative or overhead costs, the University is understating its expenses for auxiliary activities. As a result, the University's management does not have accurate information for making funding decisions.

The University employed 18 auxiliary activities to furnish goods or services to students, faculty, and/or staff for a fee directly related to, although not necessarily

equal to, the cost of these goods or services. Associated with these activities are administrative costs for general fund services that benefit the auxiliary activity.

Our review of the University's administrative cost rate applied to auxiliary activities disclosed:

a. The University had not reviewed the propriety of its administrative cost rate since 1989. Because of changes in some general fund services since 1989, the administrative cost rate may not be reflective of the level of service received. For example, the University decentralized purchasing, causing auxiliary activity staff to complete the majority of this function. However, the University did not adjust the administrative cost rate to reflect this change.

b. The University did not apply the administrative cost rate to 4 auxiliary activities that benefited from general fund services. Applying the administrative cost rate to these 4 auxiliary activities for the fiscal years ended June 30, 2001, June 30, 2002, and June 30, 2003 would have generated approximately $304,500 in additional overhead charges for the general fund.

RECOMMENDATION

We recommend that the University appropriately allocate administrative costs to its auxiliary activities.

AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that the overhead rate has been reviewed by Accounting Services in conjunction with an indirect cost rate consultant. The University also informed us that it is evaluating the financial impact upon its operations of possible rate strategies identified through this process.

FINDING

9. Sabbatical Leave

The University did not institute and enforce sabbatical leave requirements.

Faculty members' timely completion of sabbatical leave requirements assures the University that its faculty members conducted their research tasks, improved and

strengthened their teaching skills, and efficiently used State and University resources.

The University can grant sabbatical leaves to full-time faculty members every seven years. Faculty members share knowledge accumulated during their leaves by submitting reports to the University's Sabbatical Leave Committee. The University's sabbatical leave policy states that faculty members must submit reports concerning their sabbatical leaves prior to taking another sabbatical leave.

We reviewed the sabbatical leaves granted by the University to 36 faculty members during academic school years 2001-02 and 2002-03 and analyzed the University's sabbatical leave policy. Our review disclosed:

a. The University granted sabbatical leaves to 9 (25%) of these faculty members who had not submitted reports on their prior sabbatical leaves. Without these reports, the University could not identify the benefit obtained from the faculty members' sabbatical leaves.

b. The University's sabbatical leave policy did not require the timely submission of sabbatical leave reports. Per the University's sabbatical leave policy, faculty members can submit reports up to seven years after their sabbatical leaves have ended. At the time of our review (August 2003), 13 (76%) of the 17 faculty members who used sabbatical leaves during academic school year 2001-02 had not submitted reports.

RECOMMENDATION

We recommend that the University institute and enforce sabbatical leave requirements.

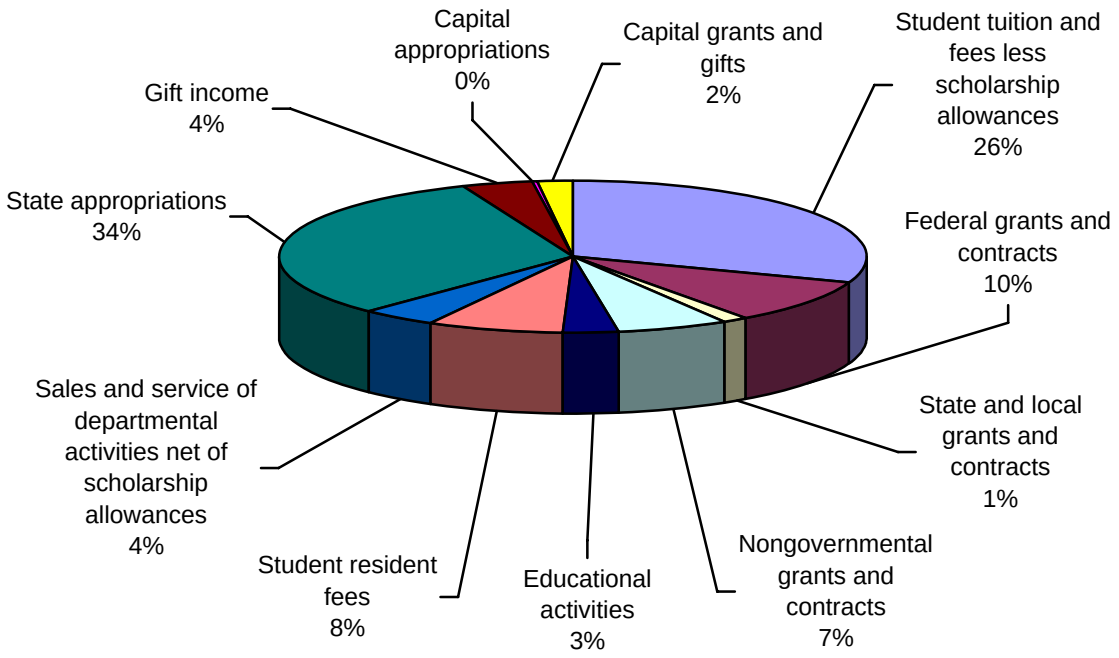
AGENCY PRELIMINARY RESPONSE

The University agrees and informed us that the University Senate revised the process and improved the monitoring of sabbatical leave during spring semester 2005. The University stated that the sabbatical report must now be attached to the first annual vitae update after the sabbatical leave and the reports are collected and maintained by human resources.

SUPPLEMENTAL INFORMATION

UNAUDITED
Exhibit 1

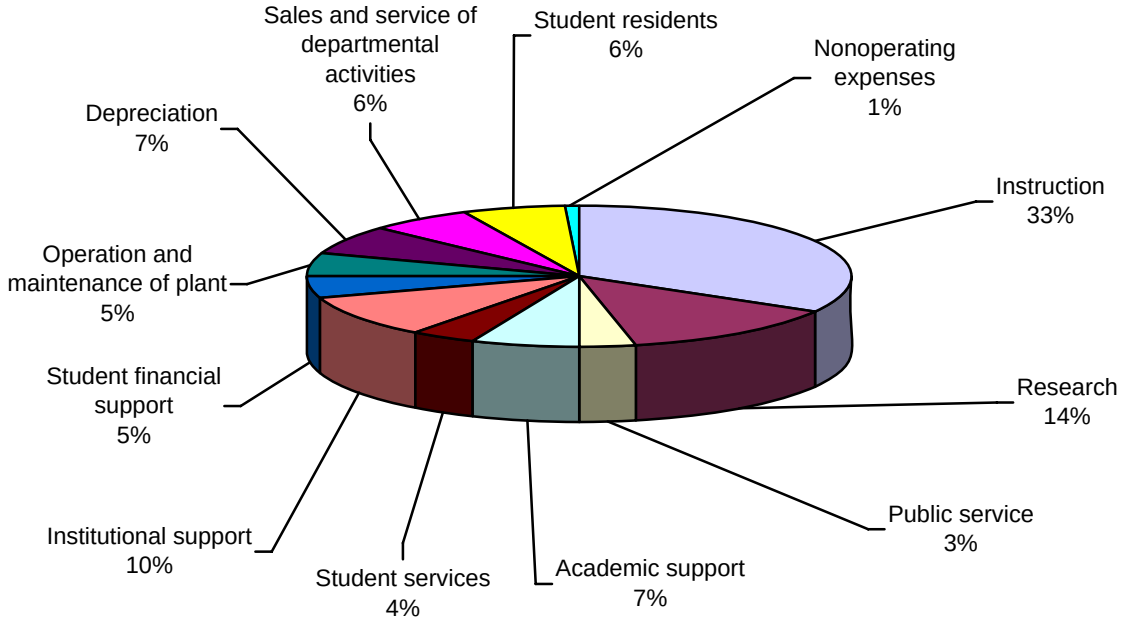
MICHIGAN TECHNOLOGICAL UNIVERSITY
Revenues
For Fiscal Year 2002-03



	Amount (in thousands)
Operating Revenues:	
Student tuition and fees less scholarship allowances	$ 41,055
Federal grants and contracts	15,881
State and local grants and contracts	2,288
Nongovernmental grants and contracts	10,476
Educational activities	5,113
Student resident fees	12,687
Sales and service of departmental activities net of scholarship allowances	6,962
Total Operating Revenues	$ 94,462
Nonoperating Revenues:	
State appropriations	$ 53,308
Gift income	6,459
Capital appropriations	541
Capital grants and gifts	3,193
Total Nonoperating Revenues	$ 63,501
Total Revenues	$ 157,963

Source: Michigan Technological University financial statements.

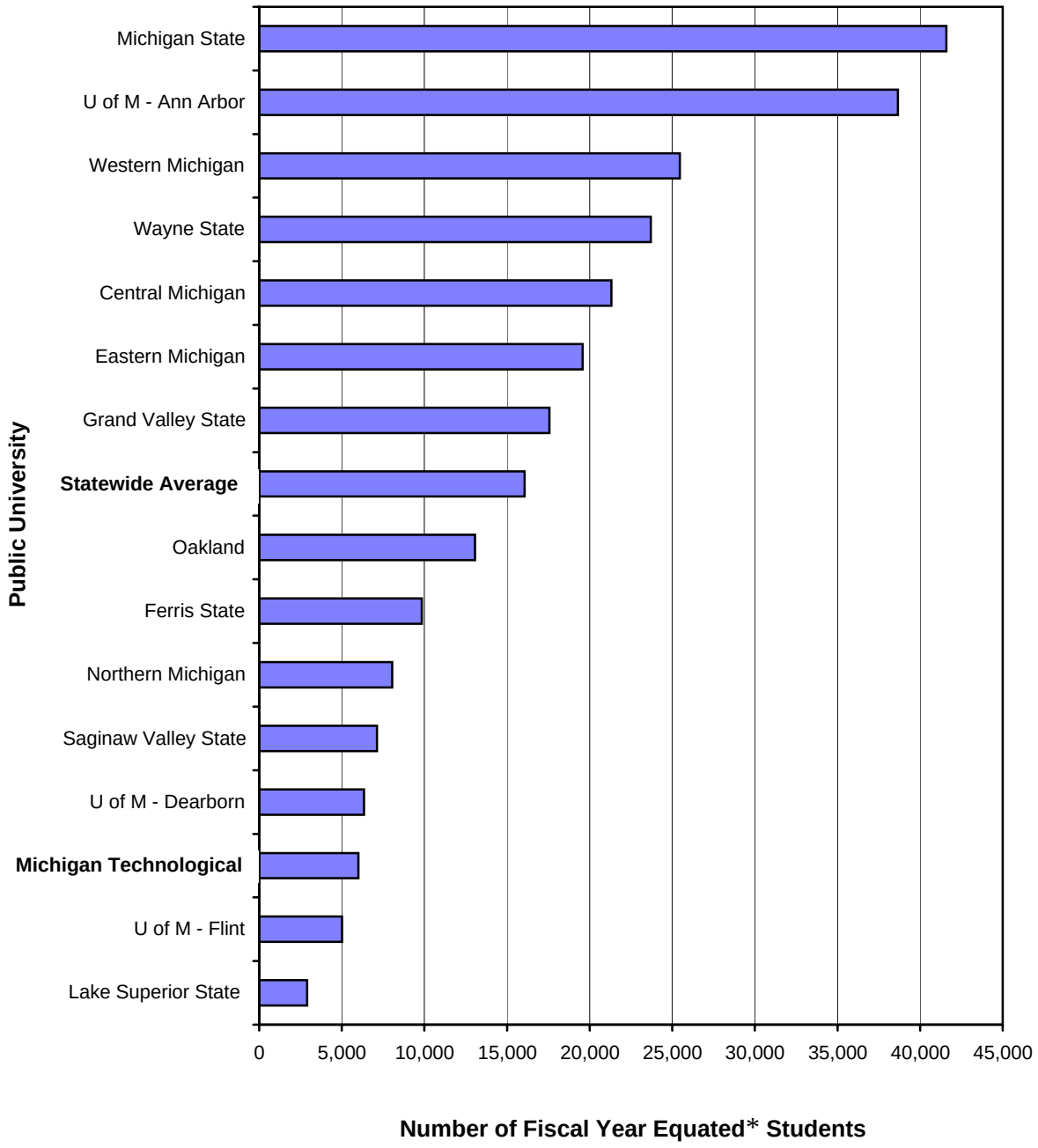
MICHIGAN TECHNOLOGICAL UNIVERSITY
Expenses
For Fiscal Year 2002-03



	Amount (in thousands)
Operating Expenses:	
Instruction	$ 52,993
Research	21,536
Public service	5,055
Academic support	10,377
Student services	5,969
Institutional support	15,501
Student financial support	7,934
Operation and maintenance of plant	8,421
Depreciation	10,811
Sales and service of departmental activities	9,915
Student residents	9,586
Total Operating Expenses	$ 158,098
Nonoperating Expenses:	
Investment income (loss)	$ 120
Interest on capital asset related debt	291
Other nonoperating expenses	881
Total Nonoperating Expenses	$ 1,292
Total Expenses	$ 159,390

Source: Michigan Technological University financial statements.

MICHIGAN TECHNOLOGICAL UNIVERSITY
Statewide Enrollment by Public University
For Fiscal Year 2002-03

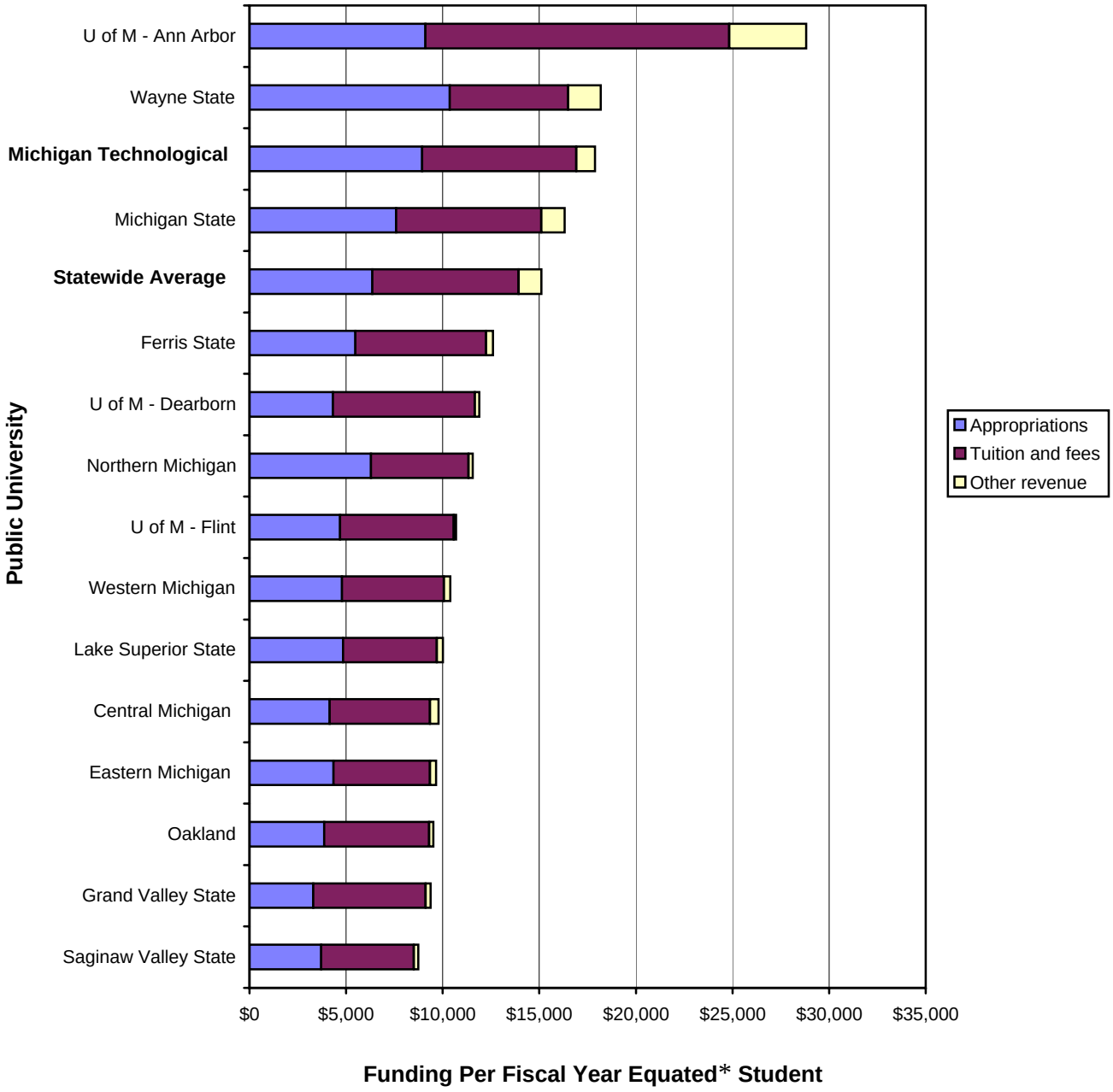


* The equivalent of 30 undergraduate semester credit hours.

Source: Higher Education Institutional Data Inventory (HEIDI) data.

UNAUDITED
Exhibit 4

MICHIGAN TECHNOLOGICAL UNIVERSITY
Per Student Funding From General Fund Sources by Public University
For Fiscal Year 2002-03

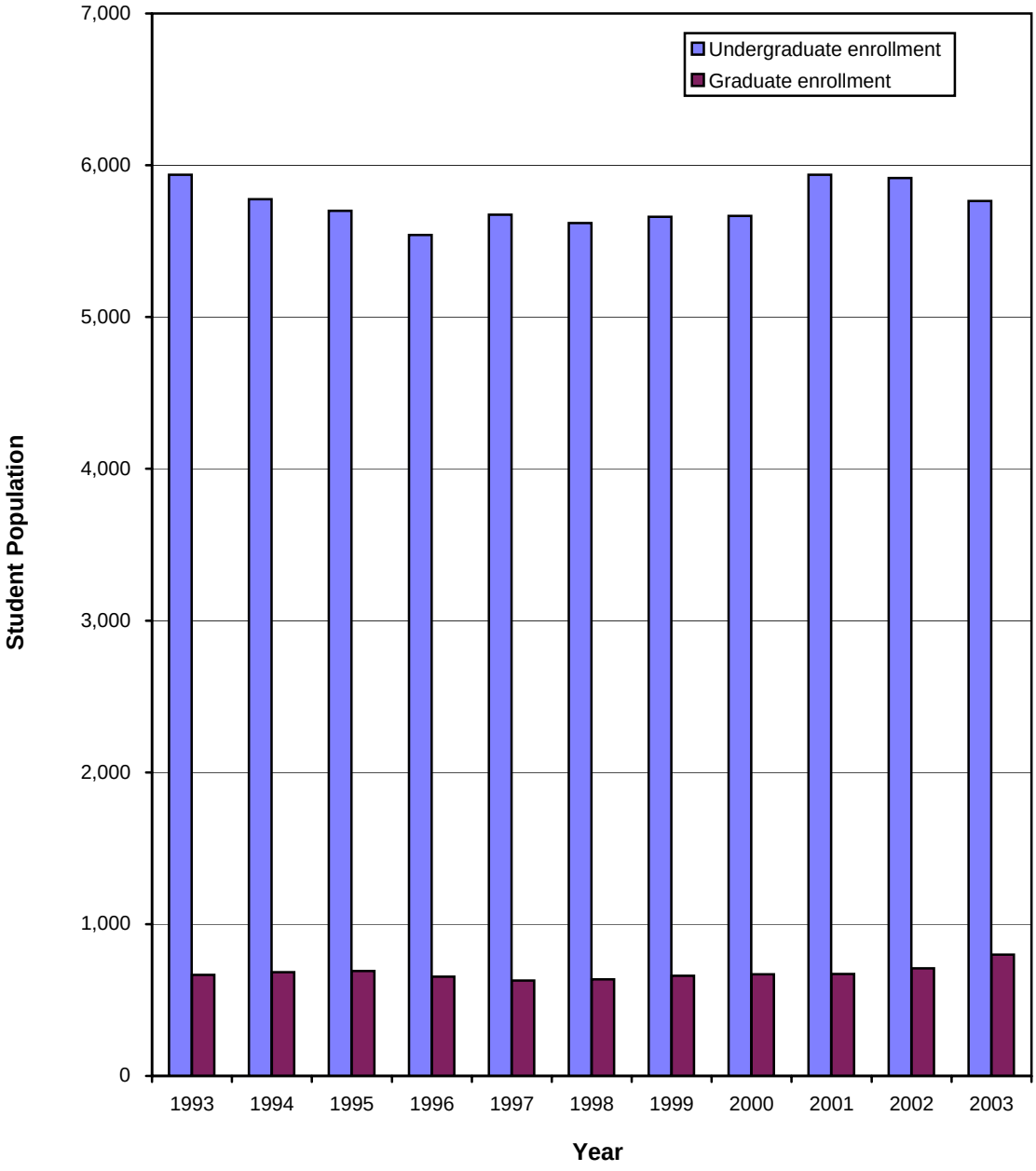


* The equivalent of 30 undergraduate semester credit hours.

Source: Higher Education Institutional Data Inventory (HEIDI) data.

UNAUDITED
Exhibit 5

MICHIGAN TECHNOLOGICAL UNIVERSITY
Enrollment Trends
For Fall Semesters 1993 through 2003



Source: Michigan Technological University Fact Book 2003-04.

GLOSSARY

Glossary of Acronyms and Terms

academic progress	The progression toward completion of coursework required for a degree.
auxiliary activities	Revenue-producing, substantially self-supporting activities that provide a service for, but are not themselves, educational or general activities. Examples include food operations, athletics, ticket offices, and campus stores.
effectiveness	Program success in achieving mission and goals.
efficiency	Achieving the most outputs and outcomes practical with the minimum amount of resources.
general fund	A fund maintained to account for the transactions related to academic and instructional programs and the administration of those programs.
graduate school	A university's offering of master's or doctoral degree programs.
management control	The plan of organization, methods, and procedures adopted by management to provide reasonable assurance that goals are met; resources are used in compliance with laws and regulations; valid and reliable data is obtained and reported; and resources are safeguarded against waste, loss, and misuse.
minimum class enrollment	The class enrollment level below which the University evaluates whether it is in the best interest of the University to hold the class.
mission	The agency's main purpose or the reason that the agency was established.

NCA	North Central Association of Colleges and Schools.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective action.
program review	Regular, periodic review of academic departments' and schools' academic programs and the infrastructure supporting them. The distinctive feature of these reviews is that they focus on the evaluation of the academic department or school as a whole and the way resources are managed to promote success.
repetitive course enrollment	To enroll in a subsequent semester in the same course that a student previously had been enrolled in.
reportable condition	A matter that, in the auditor's judgment, represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.
U of M	University of Michigan.

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