

PERFORMANCE AUDIT  
OF THE  
UNIVERSITY OF MICHIGAN - DEARBORN

February 2002

## EXECUTIVE DIGEST

# UNIVERSITY OF MICHIGAN - DEARBORN

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<b>INTRODUCTION</b>	This report, issued in February 2002, contains the results of our performance audit* of the University of Michigan - Dearborn.
<b>AUDIT PURPOSE</b>	This performance audit was conducted as part of the constitutional responsibility of the Office of the Auditor General. Performance audits are conducted on a priority basis related to the potential for improving effectiveness* and efficiency*. For audits of universities, audit selection is based on several factors, such as length of time since our last audit and legislative requirements.
<b>BACKGROUND</b>	The University's campus was established in 1956 through a gift from the Ford Motor Company. On September 28, 1959, the University opened as the Dearborn Center of the University of Michigan. The Center was a senior level institution offering junior, senior, and graduate level courses and degrees. In 1971, the Center became the University of Michigan - Dearborn and began offering four-year degree programs in liberal arts and sciences and graduate programs at the master's degree level. The University is one of the three campuses of the University of Michigan and operates under the policies of the University of Michigan Board of Regents. The University is a commuter campus with no on-campus student housing.

\* See glossary at end of report for definition.

The University's mission\* is to be an interactive, student-centered institution committed to excellence in teaching and learning. The University accomplishes its mission by offering undergraduate, graduate, and professional education to a diverse, highly motivated, and talented student body. The University's programs are responsive to the changing needs of society; relevant to the goals of its students and community partners; rich in opportunities for independent and collaborative study, research, and practical application; and reflective of the traditions of excellence, innovation, and leadership that distinguish the University of Michigan.

During fall semester 2000, the University enrolled 8,484 students. The University had 5,773 fiscal year equated\* students during fiscal year 1999-2000.

As of November 1, 2000, the University had 247 full-time and 196 part-time faculty members, 380 full-time and 74 part-time administrative and support staff, and 642 temporary employees. For the fiscal year ended June 30, 2000, current fund revenues\* were \$75.8 million (Exhibit 1) and current fund expenditures\* and transfers were \$75.5 million (Exhibit 2).

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AUDIT OBJECTIVES,  
CONCLUSIONS, AND  
NOTEWORTHY  
ACCOMPLISHMENTS

**Audit Objective:** To assess the effectiveness of the 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 remedial mathematics courses, verbal communication of teaching

\* See glossary at end of report for definition.

faculty, and the Program for Academic Support (Findings 1 through 3).

**Noteworthy Accomplishments:** In the last five years, the University initiated new undergraduate degrees in criminal justice studies, computer engineering, manufacturing engineering, software engineering, finance, and management information systems. Also, the University added new graduate degrees in automotive engineering, computer engineering, software engineering, information systems and technology, accounting, finance, liberal studies, and environmental science. Further, the University initiated several new programs, including the Institute for Advanced Vehicle Systems, the Center for Emerging Business Issues, and the Center for Arab-American Studies. All of these efforts contributed to the University's record enrollment of 8,484 students in fall semester 2000.

**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. However, we noted reportable conditions related to faculty workload monitoring, minimum class size\*, competitive selection, and Joint Capital Outlay Subcommittee approval (Findings 4 through 7).

**Noteworthy Accomplishments:** The University has added over 250,000 square feet of instructional space in the last five years, including new buildings for the College of Arts, Sciences, and Letters; the School of Management;

\* See glossary at end of report for definition.

and the Environmental Interpretive Center as well as a major addition to the College of Engineering and Computer Science.

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**AUDIT SCOPE AND  
METHODOLOGY**

Our audit scope was to examine the program and other records of the University of Michigan - Dearborn. 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.

Our audit procedures included examination of the University's records and activities primarily for the period July 1, 1998 through May 31, 2001.

We evaluated the University's policies and procedures relating to the admissions process and student academic progress\*. We examined the University's methods for ensuring the quality of its academics and assessed the efficiency of the University's use of resources.

We determined the University's compliance with selected State and University policies and procedures regarding State and non-State funded capital construction and renovation projects.

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**AGENCY RESPONSES**

Our audit report includes 7 findings and 8 corresponding recommendations. The University's preliminary response indicated that it is generally in agreement with the findings and recommendations.

\* See glossary at end of report for definition.

February 26, 2002

Dr. B. Joseph White, Interim President  
University of Michigan  
Ann Arbor, Michigan  
and  
Dr. Daniel E. Little, Chancellor  
University of Michigan - Dearborn  
Dearborn, Michigan

Dear Dr. White and Dr. Little:

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

This report contains our executive digest: description of agency; audit objectives, scope, and methodology and agency responses; 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 the University of Michigan - Dearborn'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.

AUDITOR GENERAL

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## Description of Agency

The University of Michigan - Dearborn's campus was established in 1956 through a gift from the Ford Motor Company. On September 28, 1959, the University opened as the Dearborn Center of the University of Michigan. The Center was a senior level institution offering junior, senior, and graduate level courses and degrees. In 1971, the Center became the University of Michigan - Dearborn and began offering four-year degree programs in liberal arts and sciences and graduate programs at the master's degree level.

The University is one of the three campuses of the University of Michigan and operates under the policies of the University of Michigan Board of Regents. The University is a commuter campus with no on-campus student housing.

The University's mission is to be an interactive, student-centered institution committed to excellence in teaching and learning. The University accomplishes its mission by offering undergraduate, graduate, and professional education to a diverse, highly motivated, and talented student body. The University's programs are responsive to the changing needs of society; relevant to the goals of its students and community partners; rich in opportunities for independent and collaborative study, research, and practical application; and reflective of the traditions of excellence, innovation, and leadership that distinguish the University of Michigan.

For academic year 2000-01, the University offered 69 undergraduate and 21 graduate programs within four academic colleges/schools. The colleges/schools include the College of Arts, Sciences, and Letters; College of Engineering and Computer Science; School of Education; and School of Management. During fall semester 2000, the University enrolled 8,484 students. The University had 5,773 fiscal year equated students during fiscal year 1999-2000.

The North Central Association of Colleges and Schools has accredited the University since 1970. In addition, individual programs within the University's academic colleges/schools receive periodic accreditation from various professional accrediting bodies.

As of November 1, 2000, the University had 247 full-time and 196 part-time faculty members, 380 full-time and 74 part-time administrative and support staff, and 642 temporary employees. For the fiscal year ended June 30, 2000, current fund revenues

were \$75.8 million (Exhibit 1) and current fund expenditures and transfers were \$75.5 million (Exhibit 2).

The University operates on 196 acres of land, which includes 70 acres of the Henry Ford Estate - Fair Lane.

## Audit Objectives, Scope, and Methodology and Agency Responses

### Audit Objectives

Our performance audit of the University of Michigan - Dearborn 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 the University of Michigan - Dearborn. 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, we prepared, from information compiled by the University, supplemental information (Exhibits 1 through 5) that relates to our audit objectives. We did not direct our audit toward expressing an opinion on this information and, accordingly, we express no opinion on it.

### Audit Methodology

Our audit procedures, conducted from February through June 2001, included examination of the University's records and activities primarily for the period July 1, 1998 through May 31, 2001.

We conducted a preliminary review of the University's operations to formulate a basis for defining the audit scope. Our preliminary review included interviewing University personnel, reviewing applicable policies and procedures, analyzing revenue and expenditure data, reviewing reference materials, and obtaining an understanding of the University's internal control and operational and academic activities.

We evaluated the University's policies and procedures relating to the admissions process, including orientation, placement testing, remedial course\* recommendations, placement into the Program for Academic Support, and academic advising of students. Also, we reviewed and assessed the University's policies and procedures related to student academic progress. In addition, we analyzed the University's practices relating to repetitive course enrollments\*. Further, we examined enrollment and graduation trends and graduate placement services.

We examined the University's methods for ensuring the quality of its academics, including performing program evaluations and making changes as needed. We determined the extent to which the University used student and employer surveys and advisory committees and the extent to which the University's programs were accredited. In addition, we evaluated the University's methods for ensuring the clarity of the speech of its teaching faculty.

We assessed the efficiency of the University's use of resources by analyzing data related to class scheduling; minimum class enrollment; classroom utilization; and faculty utilization, including workloads, released time, sabbatical leaves, and overload classes.

We determined the University's compliance with selected State and University policies and procedures regarding State and non-State funded capital construction and renovation projects in progress from July 1, 1998 through May 31, 2001. In addition, we evaluated the University's process for competitively bidding architectural and engineering services for capital construction projects.

### Agency Responses

Our audit report includes 7 findings and 8 corresponding recommendations. The University's preliminary response indicated that it is generally in agreement with the findings and 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 the Auditor General, the House and Senate Fiscal Agencies, and the State budget director. The response is due 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.

\* See glossary at end of report for definition.

# COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

## MONITORING OF ACADEMIC AND RELATED PROGRAMS

### COMMENT

**Audit Objective:** To assess the effectiveness of the University of Michigan - Dearborn'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 remedial mathematics courses, verbal communication of teaching faculty, and the Program for Academic Support (PAS).

**Noteworthy Accomplishments:** In the last five years, the University initiated new undergraduate degrees in criminal justice studies, computer engineering, manufacturing engineering, software engineering, finance, and management information systems. Also, the University added new graduate degrees in automotive engineering, computer engineering, software engineering, information systems and technology, accounting, finance, liberal studies, and environmental science. Further, the University initiated several new programs, including the Institute for Advanced Vehicle Systems, the Center for Emerging Business Issues, and the Center for Arab-American Studies. All of these efforts contributed to the University's record enrollment of 8,484 students in fall semester 2000.

### FINDING

#### 1. Remedial Mathematics Courses

The University needs to implement measures to significantly improve student success in its remedial mathematics courses.

The University required all incoming freshmen and transfer students who had not previously taken a college level pre-calculus or calculus course to take the University's mathematics placement examination. The University used the results of this examination, together with other pertinent information, to derive a mathematics placement recommendation for each student. The University

generally recommended placement into either remedial courses (pre-algebra, introductory algebra, or intermediate algebra) or college level courses (pre-calculus or calculus). In fall semester 2000, the University recommended that 423 (54.6%) of 775 first time in any college (FTIAC) students take at least one remedial mathematics course. However, the College of Engineering and Computer Science (CECS) was the only academic unit within the University that required its students to follow the University's mathematics placement recommendation.

We analyzed the grades earned by FTIAC students in University-recommended remedial mathematics courses. We noted:

- a. Only 2 (11.1%) of 18 FTIAC students placing into pre-algebra but taking either introductory or intermediate algebra during fall semester 2000 earned a grade of "C" or better in the respective course. The University did not offer a pre-algebra course and, as such, recommended that students complete pre-algebra at a community college. However, because this was only a recommendation and not a requirement, many students opted not to do so.
- b. Only 30 (32.6%) of 92 FTIAC students placing into and taking introductory algebra during the period fall semester 1998 through winter semester 2001 earned a grade of "C" or better in introductory algebra on the first attempt.
- c. Only 249 (46.4%) of 537 FTIAC students placing into and taking intermediate algebra during the period fall semester 1998 through winter semester 2001 earned a grade of "C" or better in intermediate algebra on the first attempt.

In contrast, we determined that 371 (77.8%) of 477 and 320 (82.1%) of 390 FTIAC students placing into and taking pre-calculus and calculus, respectively, during the period fall semester 1998 through winter semester 2001 earned a grade of "C" or better in the course on the first attempt. In addition, 97 (68.3%) of 142 FTIAC students bypassing the University's recommended intermediate algebra course during the period fall semester 1998 through winter semester 2001 earned a grade of "C" or better in pre-calculus on the first attempt.

There are many factors that could have contributed to students' poor success in remedial mathematics, including inappropriate placement recommendations, ineffective instructors, inappropriate course content, unmotivated students, etc. To identify causes for students' poor success in remedial mathematics, we reviewed

faculty and course evaluation forms completed by students for selected introductory and intermediate algebra classes. We noted many comments indicating that the remedial courses were overly demanding because of the quantity of material covered in them. This concern also appeared in a May 2000 study of remedial mathematics completed by the Remedial Mathematics Review Committee, which stated that there was too much material to be learned in intermediate algebra and that there was considerable overlap and duplication in the course contents of introductory algebra, intermediate algebra, and pre-calculus. The Remedial Mathematics Review Committee recommended that the University examine the content of the courses and eliminate any related duplication. However, as of July 2001, the University had not implemented this and several other pertinent recommendations made in the study.

In addition to the May 2000 study, the University conducted two other studies of its remedial mathematics program since 1994. All three studies recognized the poor success of students in remedial mathematics courses and recommended changes to improve student success. However, as documented in the University's studies and supported by our analysis, the University's remedial mathematics courses appear to have deficiencies that may negatively impact student retention and the time required by students to earn their degrees, both of which are desired outcomes of the educational process.

### **RECOMMENDATION**

We recommend that the University implement measures to significantly improve student success in its remedial mathematics courses.

### **AGENCY PRELIMINARY RESPONSE**

The University is in agreement with the need to review the remedial mathematics program. In this context, the Task Force on Extending and Strengthening Undergraduate Education identified basic skills as an area of concern during its retreat in early May 2001. The University initiated a comprehensive review of its introductory mathematics program early in fall semester 2001 with the goal of piloting recommended changes to the curriculum during academic year 2002-03.



## **FINDING**

### **2. Verbal Communication of Teaching Faculty**

The University needs to enhance its efforts to ensure that the verbal communication of its teaching faculty members is sufficiently clear to be easily understood by students.

The University's mission is to be an interactive, student-centered institution committed to excellence in teaching and learning. To help achieve teaching excellence while simultaneously affording students the greatest opportunity for learning, the University should ensure that faculty members use clearly spoken English when teaching.

Recent annual appropriations acts have required the University to inform the House and Senate Fiscal Agencies of its efforts for ensuring the English language oral proficiency of its teaching faculty. In a November 8, 2000 letter to the fiscal agencies, the University stated that its efforts included evaluation by appointing faculty of the speaking abilities of candidates for tenure-track faculty positions during the on-campus interview process. The University requires candidates to present a lecture on their research during the interview process and, in some instances, to teach a class. In addition, the University indicated that senior faculty members review the ability of all tenure-track and adjunct faculty\* to convey material effectively to students. Further, the University indicated that it considered student course and faculty evaluations in the faculty promotion and tenure process. Finally, the University indicated that faculty members may be provided access to the University's Center for Research on Learning and Teaching and the English Language Institute.

To assess the effectiveness of these efforts in ensuring the clarity of faculty members' verbal communication, we reviewed the results of selected student course and faculty evaluations. Our review was limited to evaluations completed in CECS and the College of Arts, Sciences, and Letters (CASL) as they were the only colleges/schools that surveyed students regarding faculty members' verbal communication. CECS asked students whether the clarity of the faculty member's speech was distracting or bothersome to the class while CASL's survey asked students whether the faculty member's communication skills were adequate for

\* See glossary at end of report for definition.

teaching. We reviewed the results of student course and faculty evaluations for 41 CECS faculty members for academic years 1999-2000 and 2000-01 and for 39 CASL courses for winter and fall semesters 2000. For 8 of the CECS faculty members tested, between 23.6% and 67.7% of the responding students indicated that the faculty members' speech was unclear. There were no significant problems cited with the clarity of the CASL faculty members' speech. The following chart highlights the responses by CECS faculty member:

<u>Instructor</u>	<u>Total Number of Evaluations Completed</u>	<u>Responses Indicating Unclear Speech</u>	<u>Percent of Total Responses</u>
Full-Time:			
1	113	42	37.2%
2	110	36	32.7%
3	131	40	30.5%
4	143	38	26.6%
5	134	48	35.8%
Adjunct:			
1	65	44	67.7%
2	18	10	55.6%
3	157	37	23.6%

Upon further analysis we noted that 2 of the 5 full-time faculty members had gone through the on-campus interview process and were hired during academic year 1999-2000 as tenure-track faculty. However, we could not determine whether the clarity of the two faculty member's speech was identified as a problem before hiring. We also noted that 2 of the 5 full-time faculty members received promotions during our period of review. Again, there was no indication that the clarity of the faculty members' speech affected their advancement. Further, the University could not provide us with documentation that any of the 8 faculty members had been referred to and received training from the Center for Research on Learning and Teaching or the English Language Institute to improve the clarity of their speech.

### **RECOMMENDATION**

We recommend that the University enhance its efforts to ensure that the verbal communication of its teaching faculty members is sufficiently clear to be easily understood by students.

## **AGENCY PRELIMINARY RESPONSE**

The University agrees with the audit conclusion concerning the importance of English language oral proficiency in the classroom. The University has reviewed the audit data and found little relationship between "clarity of speech" and instructor effectiveness as measured by the overall student evaluation of the instructor. From the student prospective, "clarity of speech" in a very few cases was "unclear"; however, in almost all cases, the instructor's overall rating was not affected. The audit data reviewed from CECS supports this conclusion. The University recognizes that English proficiency has been an issue in a few instances and it has taken, and will continue to take, steps to ensure that instructors will be understood in the classroom. In those few instances, the University will document the actions taken by the University to ensure the improvement of the instructor's English language.

## **FINDING**

### **3. Program for Academic Support (PAS)**

The University should periodically assess PAS's effectiveness.

The University established PAS to provide academic and personal support to those at-risk students not meeting the standard qualifications for acceptance to the University, but whose academic records show strong potential for academic success. Services provided by PAS include mandatory one-on-one academic advising, individual and group tutoring, workshops, and intensive ongoing academic monitoring and evaluation. Students are required to remain in PAS until they have completed 36 credit hours of academic work.

For fall semester 1999, the University admitted 763 FTIAC students. We determined that 182 (23.9%) of the 763 FTIAC students were at-risk students not meeting the University's general admission standards of a 3.0 (on a 4.0 scale) recalculated high school grade point average\* and a score of 22 on the American College Test (ACT). Unbeknownst to the University's administration, prior to fall semester 2001, the University's admission counselors utilized their discretion and either admitted at-risk students into PAS or treated them as regular non-PAS admissions. The University admitted 78 (42.9%) of the 182 at-risk FTIAC students

\* See glossary at end of report for definition.

into PAS. We analyzed the academic history of all 182 at-risk students and noted that the incoming recalculated high school grade point average of both the PAS and non-PAS students was the same, while the ACT of the PAS students was somewhat lower than non-PAS students (19.5 vs. 21.2). As one test of the effectiveness of PAS, we compared the academic progress and success of these two at-risk groups of students during fall semester 1999 and winter semester 2000 along with the students' fall semester 1999 to fall semester 2000 retention rate\*. We noted:

- a. PAS students attempted only an average of 22.5 credit hours (7.04 classes) during their first two semesters of enrollment, while non-PAS students attempted 24.8 credit hours (7.83 classes). Despite taking a larger class load, the non-PAS students completed about the same percentage of classes with a grade of "C" or better as the PAS students.
- b. PAS students had a slightly lower average grade point average than non-PAS students at the end of the second semester (2.34 versus 2.43).
- c. PAS students had a slightly lower fall semester 1999 to fall semester 2000 retention rate than non-PAS students (77.3% versus 79.8%).

While our analysis is inconclusive because it did not account for known and unknown differences between the PAS and non-PAS students, it indicates that PAS may have limited effectiveness.

The University informed us that it had not assessed the effectiveness of PAS in over 10 years but planned to conduct an assessment of PAS in fall semester 2001.

### **RECOMMENDATION**

We recommend that the University periodically assess PAS's effectiveness.

### **AGENCY PRELIMINARY RESPONSE**

The University is in agreement with the importance of reviewing the effectiveness of PAS on a periodic basis. However, it is important to note that there is a difference between students admitted as regular admits, but scoring below our admissions standards of a 3.0 GPA and 22 ACT, and those admitted through PAS.

\* See glossary at end of report for definition.

Students admitted through PAS are deemed to show potential and are admitted into PAS because of their perceived need for additional structure and support. They are students of a higher risk. The fact that they were as successful as regular admits, with below admissions standards, really speaks to noted success of PAS. As noted in the audit, the University plans to conduct a full program review of PAS during academic year 2001-02 to further enhance the effectiveness of this important University student support group.

## **USE OF RESOURCES ALLOCATED TO SUPPORT ACADEMIC AND RELATED PROGRAMS**

### **COMMENT**

**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. However, we noted reportable conditions related to faculty workload monitoring, minimum class size, competitive selection, and Joint Capital Outlay Subcommittee (JCOS) approval.

**Noteworthy Accomplishments:** The University has added over 250,000 square feet of instructional space in the last five years, including new buildings for CASL, the School of Management, and the Environmental Interpretive Center as well as a major addition to CECS.

### **FINDING**

#### **4. Faculty Workload Monitoring**

The University needs to improve its controls for ensuring that faculty members fulfill workload requirements specified in their employment contracts.

The University requires its tenured and tenure-track faculty members to teach 18 credit hours per academic year. In addition, the University requires non-tenure track faculty members to teach between 21 and 24 credit hours per academic year. Workload requirements are specified in each faculty member's employment

contract. The academic dean within each college/school may reduce the number of credit hours that faculty members must teach by granting the faculty members released time or sabbatical leave. Released time is granted for various activities, including research, new course development, and administrative work. Sabbatical leave is generally granted to tenured faculty members every six years and is primarily for intensive research and/or study.

The chairperson of the various academic disciplines/departments or the associate dean within each college/school assigns faculty members' teaching work loads. The academic dean within each college/school is responsible for ensuring that faculty members have a full work load. However, to determine whether faculty members have a full work load, the academic deans must concurrently review multiple sources of hardcopy information related to faculty teaching assignments, released time, and sabbatical leaves. This is necessary because the University does not maintain a comprehensive database containing all of this information.

To assess the adequacy of the University's workload scheduling and review process, we reviewed the work load of 21 faculty members for academic year 2000-01. We noted that 2 (9.5%) of the faculty members did not fulfill the workload requirements defined in their employment contracts. Both faculty members lacked the equivalent of three credit hours (one class) for the academic year. In one instance, a department chairperson failed to schedule himself for enough classes. In another instance, a department chairperson gave a faculty member credit for more released time than was earned. The lack of a database containing comprehensive faculty workload information may have contributed to the academic deans' failure to identify the workload deficits.

Failure to ensure that faculty members fulfill the workload requirements specified in their employment contracts results in an inefficient use of University resources.

The University informed us that it planned to incorporate a faculty module with reporting capabilities into its current database beginning in fall semester 2001. The University expects the module to provide its academic deans and central administration with an effective tool for monitoring faculty work loads.

## **RECOMMENDATION**

We recommend that the University improve its controls for ensuring that faculty members fulfill workload requirements specified in their employment contracts.

## **AGENCY PRELIMINARY RESPONSE**

The University is in agreement with the need to better monitor faculty work load. In July 2000, the University began development of a comprehensive workload module to monitor faculty effort. This module is scheduled for implementation during fall semester 2001.

## **FINDING**

### **5. Minimum Class Size**

The University should establish meaningful minimum class size standards based on a review of financial and other pertinent information. Also, the University should establish criteria for holding low enrollment classes and provide for centralized approval when it is necessary to hold low enrollment classes.

Each of the University's four colleges/schools had established informal minimum class size standards. The informal minimum class size standard for undergraduate classes for 3 colleges/schools was 15 students, while the standard for 1 college/school was 12 students. However, neither the colleges/schools nor the University's central administration could provide any support or justification for these minimum standards. Generally, the colleges/schools used an informal and decentralized monitoring process in which the department chairs and assistant/associate deans reviewed enrollment levels prior to the start of classes and throughout the drop/add period each semester and determined whether to hold or cancel classes.

We analyzed low enrollment classes for all four colleges/schools for the period fall semester 1998 through fall semester 2000. The total number of undergraduate classes offered, excluding cross-listed classes\*, independent studies, and internships, was 3,861. There was a total of 671 (17.4%) classes held that were below the informal minimum class size standards. Of these 671 classes, 419 (62.4%) had enrollment of 10 or fewer students.

Our analysis of 17 low enrollment classes disclosed:

- a. Four classes were required for a degree program and were offered only one semester during the academic year. These 4 classes had an average enrollment of 11.5 students.

\* See glossary at end of report for definition.

- b. Three classes were required for a degree program. Each of these classes was offered at least one other semester during the academic year. One class was offered twice during the semester for which we tested records, with a total enrollment of 27 students in 2 classes. Because the maximum capacity for each class was 32 students, the University could have combined the two classes. The 3 classes had an average enrollment of 11 students.
- c. Ten classes were for elective courses. Five of these classes were offered at least one other semester during the academic year. These 10 classes had an average enrollment of 8.7 students.

There are several reasons why the University may want to offer certain classes with below minimum enrollment. The reasons include, but are not limited to, the course is required for graduation, the course is offered only once an academic year, or the course is for a new program. However, as shown above, 8 (47.1%) of the 17 low enrollment classes reviewed did not meet any of these criteria and appeared cancelable. Therefore, we question the effectiveness of the decentralized monitoring process.

Conducting an analysis of pertinent financial and other information and identifying appropriate minimum class size standards along with centralized review of low enrollment classes would help ensure that the University is using its resources efficiently.

## **RECOMMENDATIONS**

We recommend that the University establish meaningful minimum class size standards based on a review of financial and other pertinent information.

We also recommend that the University establish criteria for holding low enrollment classes and provide for centralized approval when it is necessary to hold low enrollment classes.

## **AGENCY PRELIMINARY RESPONSE**

The University disagrees with the audit finding. The University is a comprehensive regional campus serving commuter students. It is committed to offering a rotation of classes that ensures students can complete their programs of study in a timely manner, both during the day and evening. As the audit notes, informal class size



standards do exist. The academic units are provided with the flexibility and attendant responsibility to monitor class size and student progress. The audit finding that over 82% of the courses offered met the informal minimums reflects the fact that the academic units pay attention to class size and the impact on financial resources, while also being sensitive to the needs of the students.

## **FINDING**

### **6. Competitive Selection**

The University did not use a competitive selection process to award architectural contracts for its non-State funded capital outlay projects.

The University's Standard Practice Guide No. 507.4 states that an independent consultant can be engaged only after a selection process has been followed to ensure that the consultant is the most suitable considering the consultant's qualifications, availability, and costs.

We reviewed how the University awarded contracts for architectural services for 2 State-funded and 2 non-State funded capital construction projects. We noted that the University had not utilized a competitive selection process to award contracts for architectural services for either of the non-State funded capital construction projects. The University paid the architects approximately \$175,000 and \$381,000, respectively, related to these projects. Therefore, the University did not comply with its Standard Practice Guide requirement.

The University informed us that it did not utilize a competitive selection process for one of the projects (a building addition) because, among other things, the University believed the project was small and did not require a formal selection process. The University did not provide a reason for not utilizing a competitive selection process for the other project.

Using a competitive selection process when awarding contracts helps ensure that the University obtains desired services at competitive prices. Without competitive bidding, the University has no way of knowing whether it is overpaying for the quality of work it is receiving.

## **RECOMMENDATION**

We recommend that the University use a competitive selection process to award architectural contracts for its non-State funded capital outlay projects.

## **AGENCY PRELIMINARY RESPONSE**

The University agrees with the audit finding to use a competitive selection process in awarding architectural contracts.

## **FINDING**

### **7. Joint Capital Outlay Subcommittee (JCOS) Approval**

The University did not obtain JCOS approval prior to starting a \$3.9 million non-State funded capital outlay project.

Recent annual capital outlay appropriations acts require that universities obtain JCOS approval prior to starting non-State funded capital outlay projects exceeding \$1 million. This includes both new construction and renovation projects. To aid in assessing the propriety of proposed projects, JCOS requires that universities submit a project use and financing statement describing the functions and activities to take place in the proposed structure, the estimated construction and operating costs, and anticipated project revenues. Projects not receiving JCOS approval are not eligible for future State operational funding.

In February 2000, the University of Michigan Board of Regents approved a major renovation to the University's field house/ice arena. As of March 14, 2001, the University had expended approximately \$400,000 on this project, primarily for architectural and engineering services. However, as of this date, the University had not requested JCOS approval for this project. The University informed us that it did not know that JCOS approval was required for renovation projects. Upon learning of this requirement, the University immediately submitted the use and financing statement to JCOS and requested its approval of the project.

## **RECOMMENDATION**

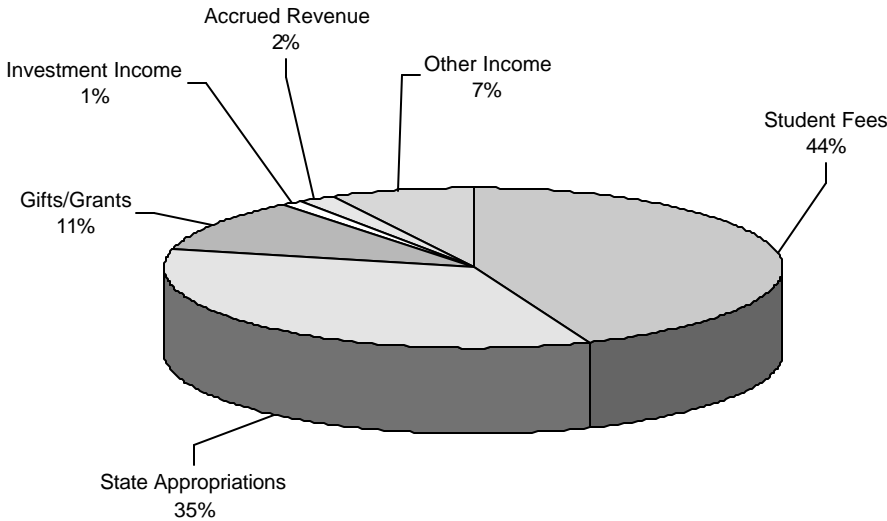
We recommend that the University obtain JCOS approval prior to starting applicable non-State funded capital outlay projects.

## **AGENCY PRELIMINARY RESPONSE**

The University agrees with the audit finding and will seek JCOS approval on a timely basis for future renovation projects exceeding \$1 million.

# SUPPLEMENTAL INFORMATION

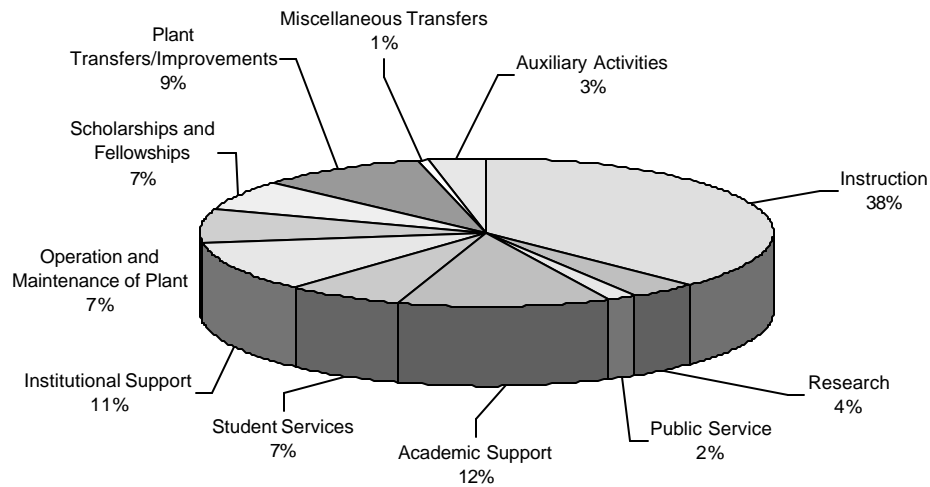
UNIVERSITY OF MICHIGAN - DEARBORN  
Current Fund Revenues  
For Fiscal Year 1999-2000



	<u>Amount</u>
Student fees	\$33,272,629
State appropriations	26,252,492
Gifts/Grants	8,297,889
Investment income	871,423
Accrued revenue	1,416,170
Other income	<u>5,644,660</u>
Total Revenues	<u><u>\$75,755,263</u></u>

Source: Internal University of Michigan - Dearborn financial schedules.

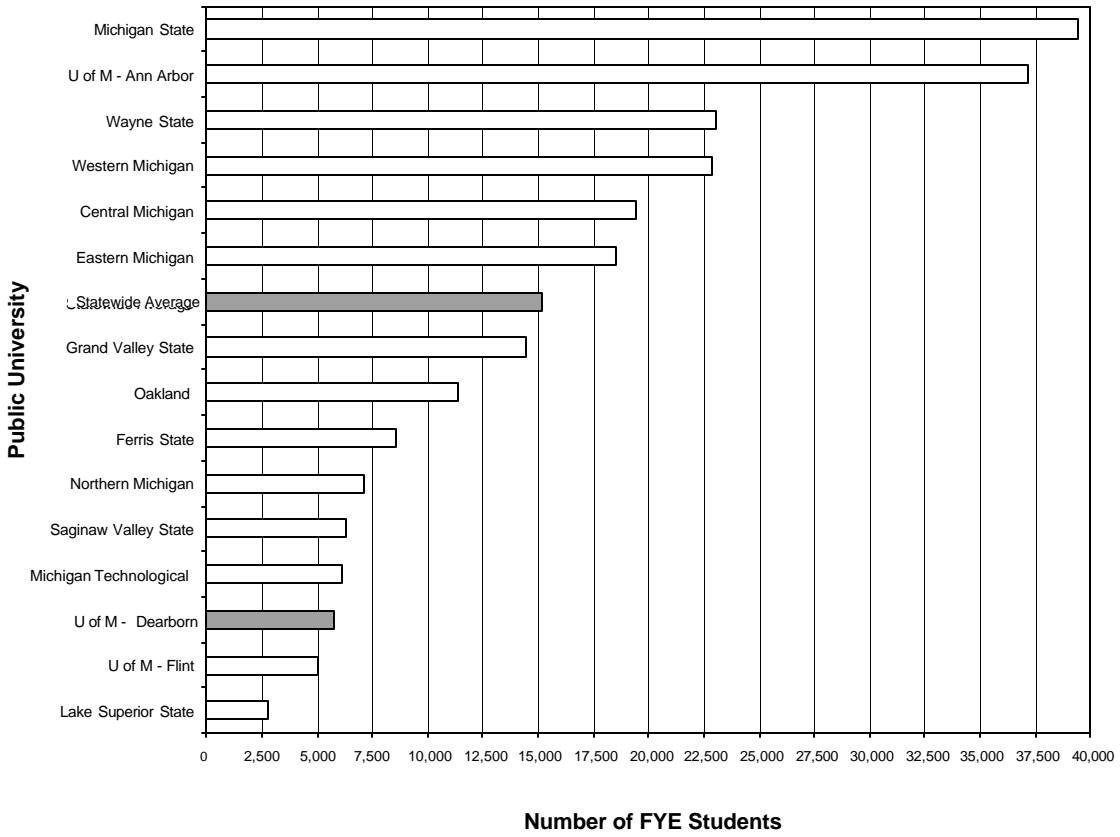
UNIVERSITY OF MICHIGAN - DEARBORN  
Current Fund Expenditures and Transfers  
For Fiscal Year 1999-2000



	<u>Amount</u>
Instruction	\$28,356,432
Research	2,818,248
Public service	1,275,279
Academic support	8,966,168
Student services	5,153,415
Institutional support	8,260,706
Operation and maintenance of plant	5,442,843
Scholarships and fellowships	5,180,790
Plant transfers/improvements	7,022,951
Miscellaneous transfers	527,468
Auxiliary activities	2,511,534
Total Expenditures and Transfers	<u><u>\$75,515,834</u></u>

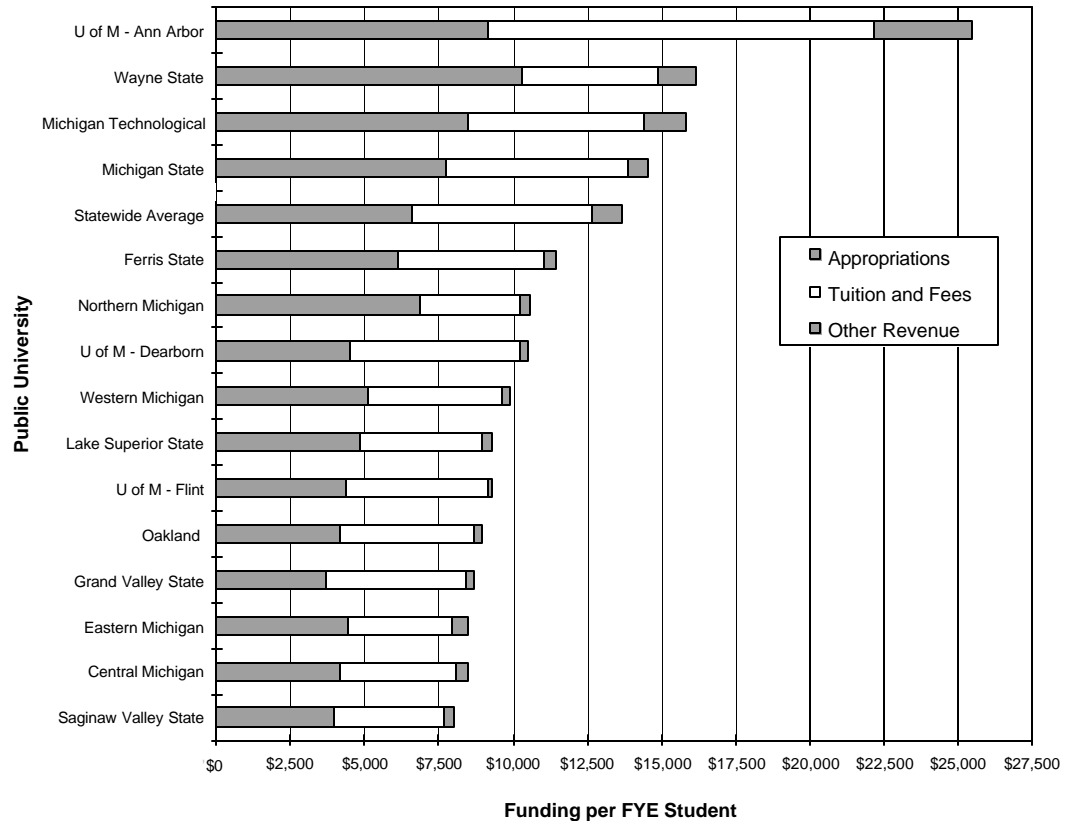
Source: Internal University of Michigan - Dearborn financial schedules.

**UNIVERSITY OF MICHIGAN - DEARBORN**  
Statewide Enrollment by Public University  
For Fiscal Year 1999-2000



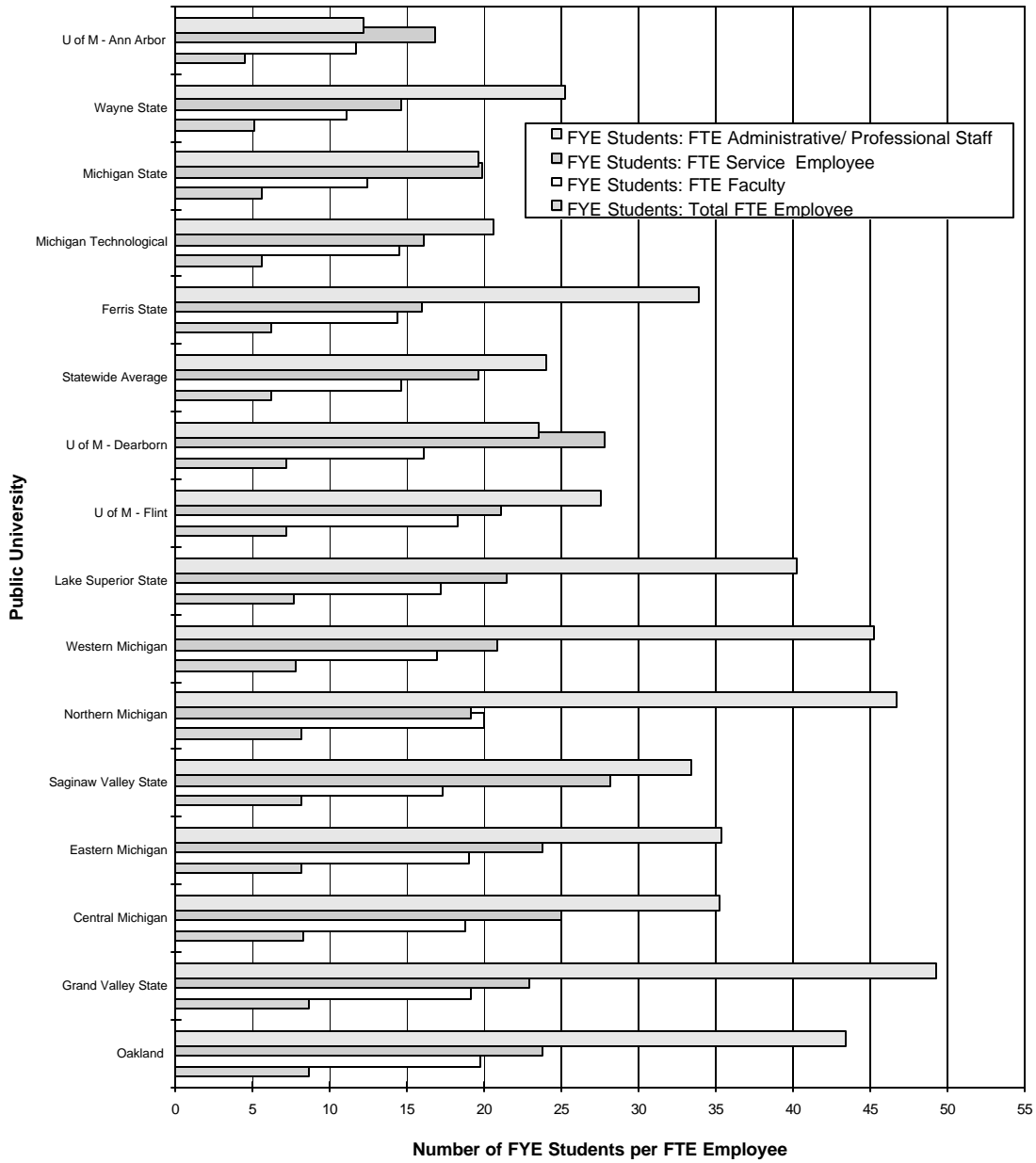
Source: Higher Education Institutional Data Inventory (HEIDI) data.

UNIVERSITY OF MICHIGAN - DEARBORN  
Per Student Funding From General Fund Sources by Public University  
For Fiscal Year 1999-2000



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

UNIVERSITY OF MICHIGAN - DEARBORN  
Number of Students per Employee by Public University  
For Fiscal Year 1999-2000



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



## Glossary of Acronyms and Terms

academic progress	The progression toward completion of course work required for a degree.
ACT	American College Test.
adjunct faculty	Supplemental instructors appointed on an annual or shorter basis.
CASL	College of Arts, Sciences, and Letters.
CECS	College of Engineering and Computer Science.
cross-listed class	A single class offered simultaneously by more than one discipline (having different subject numbers, course numbers, and course titles listed by each discipline) that will be taught by the same instructor at one designated time and place.
current fund expenditures	Expenditures incurred for current operations, including expenditures of general, designated, expendable restricted, and auxiliary funds.
current fund revenues	Revenues generated from current operations, including general, designated, expendable restricted, and auxiliary fund revenues.
effectiveness	Program success in achieving mission and goals.
efficiency	Achieving the most outputs and outcomes practical for the amount of resources applied or minimizing the amount of resources required to attain a certain level of outputs or outcomes.

fiscal year equated (FYE)	In fiscal year 1999-2000, 30 undergraduate semester credit hours, based on a new State reporting requirement; in prior fiscal years, 31 semester credit hours.
FTE	full-time equated.
FTIAC	first time in any college.
JCOS	Joint Capital Outlay Subcommittee.
minimum class size	The class size below which the University evaluates if 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.
PAS	Program for Academic Support.
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.
recalculated high school grade point average	A grade point average that excludes grades earned in nonacademic classes.
remedial course	A basic course designed to correct a student's academic deficiencies prior to enrollment in college level courses.
repetitive course enrollment	To enroll in a subsequent semester in the same course that a student previously has enrolled in.

reportable condition	A matter coming to the auditor's attention that, in the auditor's judgment, should be communicated because it represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.
retention rate	The percentage of first-time, full-time, degree-seeking students in fall semester who re-enroll during fall semester of the subsequent academic year.
U of M	University of Michigan.