



**Board of Regents
Committee on Economic Development and Technology Commercialization**

March 17, 2011

Towson University

Public Session

1. Revision of the bylaws of the Board of Regents of the University System of Maryland (action) (attachment)
2. Monitoring for Success: Establishing Committee Goals and Objectives per the USM Strategic Plan (discussion)
3. Annual Workshop/Retreat (discussion)
 - a. Developing the Theme
 - b. Setting the Date
 - c. Identifying Staff to Organize the Retreat
4. Economic Impact Statement (discussion) (attachment)
 - a. Identifying What it Should Cover
 - b. Determining the Provider
5. Employer Satisfaction Survey (discussion)
6. Future Agenda Item: Presentation on Patents (discussion)
7. Plans for Jack Brittain Visit (discussion)
8. Convening Closed Session (action) (attachments)



TOPIC: Revision of the Bylaws of the Board of Regents of the University System of Maryland

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: March 17, 2011

SUMMARY: At its meeting of February 11, 2011 the Board of Regents voted to establish the Economic Development and Technology Commercialization Work Group as a Standing Committee of the Board. This action necessitates the revision of Article IX of the Bylaws of the Board of Regents of the University System of Maryland.

The revised language is attached.

ALTERNATIVE(S): Expand or otherwise modify the proposed description of the responsibilities of the Committee to be included in Article IX of the Bylaws.

FISCAL IMPACT: None

CHANCELLOR'S RECOMMENDATION: That the Committee on Economic Development and Technology Commercialization recommend that the Board of Regents approve the revisions to Article IX of the Bylaws.

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

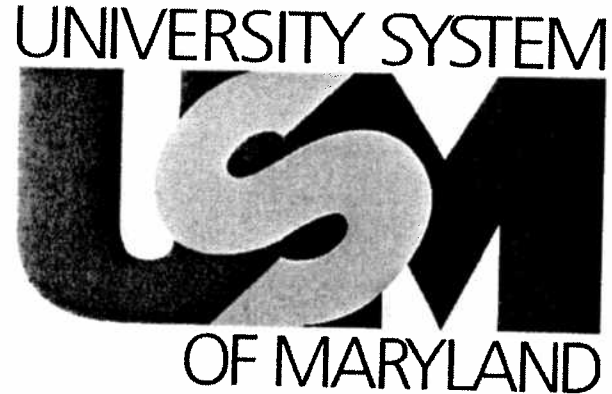
SUBMITTED BY: Joseph F. Vivona (301) 445-1923

ARTICLE IX
BOARD COMMITTEES

Section 1. The Standing Committees of the Board are the Committee on Audit, THE COMMITTEE ON ECONOMIC DEVELOPMENT AND TECHNOLOGY COMMERCIALIZATION, the Committee on Education Policy, the Committee on Finance, the Committee of the Whole, the Committee on Organization and Compensation, and the Committee on Advancement.

SECTION 4. COMMITTEE ON ECONOMIC DEVELOPMENT AND TECHNOLOGY COMMERCIALIZATION

- A. THE COMMITTEE ON ECONOMIC DEVELOPMENT AND TECHNOLOGY COMMERCIALIZATION SHALL CONSIDER AND REPORT TO THE BOARD HOW THE UNIVERSITY SYSTEM OF MARYLAND CAN BEST UTILIZE ITS RESOURCES TO PROMOTE THE ECONOMIC DEVELOPMENT OF THE STATE.
- B. THIS COMMITTEE SHALL DEVELOP STRATEGIES AND RECOMMEND POLICIES TO THE BOARD TO STRENGTHEN LINKS BETWEEN THE SYSTEM AND BUSINESS, GOVERNMENT, AND COMMUNITIES AND BETWEEN SYSTEM INSTITUTIONS TO ENCOURAGE TECHNOLOGY-BASED ECONOMIC DEVELOPMENT ACROSS MARYLAND.
- C. IN CARRYING OUT ITS CHARGE, THIS COMMITTEE SHALL CONSIDER ISSUES, RESOURCES, AND POLICIES RELATED TO ECONOMIC DEVELOPMENT, INCLUDING, BUT NOT LIMITED TO: RESEARCH, TECHNOLOGY TRANSFER, WORKFORCE DEVELOPMENT, AND ACCOUNTABILITY.
- D. THE COMMITTEE SHALL ALSO CONSIDER OTHER RELATED MATTERS THAT MAY BE BROUGHT TO ITS ATTENTION BY THE CHANCELLOR OR VICE CHANCELLOR OR REFERRED TO IT BY THE BOARD.
- E. NOTWITHSTANDING ARTICLE IX, SECTION 9. A. OF THESE BYLAWS, THE COMMITTEE SHALL MEET AS NECESSARY TO ACCOMPLISH ITS BUSINESS.



**THE ECONOMIC IMPACT OF
THE UNIVERSITY SYSTEM OF
MARYLAND:**

A FISCAL PERSPECTIVE

Richard P. Clinch, MPP, Dr. Daniel A. Gerlowski

**The Jacob France Institute
Merrick School of Business
University of Baltimore**

February 2002

The Economic Impact of the University System of Maryland

Executive Summary

Background

In July 2001, the University System of Maryland (USM or System) commissioned the Jacob France Institute to study the economic impact of the USM on the Maryland economy. Similar analyses were conducted in 1994 and 1998. The earlier studies and this latest one provide ample evidence of the System's significant contribution to the health of the state's economy.

It is generally believed that the current economic recession has not been as harsh for Maryland as it has been for other states. The quality of the institutions that make up the USM and the fit between the institutions and the economic strengths of the state are often cited as reasons for the state's economic resilience.

The goal of the 2002 report is to quantify the System's contribution to the State's economy and measure it against the State's investment in the System.

The 2002 Report

The study provides an in-depth analysis of the System's impact in three specific, key areas:

- 1) The System's **economic and fiscal impact** on the State as measured by the increased taxes paid by graduates of System institutions and the new spending attracted into Maryland, from sources such as federal research support and out-of-state students, by the top quality research and educational capabilities of USM institutions;
- 2) The System's contribution to **workforce development** including its ability to produce graduates in areas of workforce shortages and its accessibility to workers who are upgrading their skills or changing careers; and
- 3) The System's contribution to the **economic development** through its research, partnerships with the private sector, technology transfer

It should be noted that the System's estimated fiscal impact (#1 above) is very conservative in that it does not account for graduates whose earnings information were not available to the State (e.g., federal employees, self-employed persons, and Maryland residents commuting out-of-State).

Fiscal Impact

The System's fiscal impact was determined by a detailed analysis of two representative USM graduating classes: 1986 and 1989. Actual earnings information of the graduates were examined and compared to the estimated earnings of high school graduates in the same years. Using this earnings information, the difference in the actual average earnings of the respective graduates - the incremental increase in earnings when moving from one degree level to the next - was determined. For example:

- Average 2000 earnings of 1986 USM bachelor's degree recipients were \$51,397, \$26,225 more than a person whose highest level of educational attainment was a high

school degree only. Average 2000 earnings of 1986 master's degree recipients were \$53,449, \$2,052 more than USM bachelor's degree recipients.

- Average 2000 earnings for 1986 master's degree recipients were \$53,449, with incremental earnings of \$2,052 more than the average USM bachelor's degree recipient.
- Average 2000 earnings of 1986 USM doctoral degree recipients were \$62,599, \$9,150 more than USM master's degree recipients.
- Average 2000 earnings of 1986 professional school graduates, were \$88,769, \$37,371 more than USM bachelor's degree recipients.

Similar incremental increases are found in the 1989 cohort of USM graduates. The cumulative impact of these increased earnings on State revenues is considerable. Over the course of their working lives, the 1986 and 1989 graduates will have increased earnings, and pay increased taxes, as follows:

- For 1986 graduates, lifetime incremental earnings are \$10.2 billion, generating income and sales tax revenues of \$651 million.
- For 1989 graduates, lifetime incremental earnings are \$11.5 billion, generating income and sales tax revenues of \$735 million.

In addition to increasing state tax revenues, the incremental earnings of USM graduates have multiplier effects; when the earnings are spent, other economic activities are supported that result in jobs.

- Economic activity generated by the lifetime incremental earnings of 1986 graduates will support an average of 2,698 annual jobs, earning \$3.2 billion in salaries and wages, and resulting in a total of \$854 million in additional state taxes.
- Economic activity generated by the lifetime incremental earnings of 1989 graduates will support an average of 3,051 annual jobs, earning \$3.6 billion in salaries and wages, and resulting a total of \$966 million in additional state taxes.

The System also contributes to Maryland's economic base by attracting students and spending into Maryland from outside of the State. This spending too is subject to multiplier effects. Three sources of out-of-state spending were considered in this report:

- 1) Non-resident student tuition and living expenditures.
- 2) Federal government sponsored grants to USM institutions to perform research, training, or other services; and
- 3) Out-of-state visitors to USM institutions.

In 2000, these three sources contributed the following to the state's economy:

- \$830 million in out-of-state spending associated with the USM.
- \$1.76 billion in economic activity in the State, supporting 21,420 jobs earning nearly \$580 million in fiscal year 2000.
- \$27 million in State income and sales taxes.

A comparison of the positive economic impact of the USM to state appropriations for the System demonstrates the soundness of the state's investment.

- The ratio of state revenue to state cost for the 1986 cohort of USM graduates is 3.2 to 1, with the state receiving \$3.20 in revenue for each \$1 invested.
- Using the discounted present value of future tax revenues, the state revenue/cost ratio for the 1986 cohort of USM graduates is 1.9, with the State receiving \$1.90 in revenue for each \$1 invested.
- Revenue/cost ratios for the 1989 cohort were lower – due to higher levels of State appropriations, but the net fiscal return to the State remains positive at \$2.60 for every \$1 invested in undiscounted terms and \$1.50 for every \$1 invested in discounted terms.

Workforce Development

Maryland has the distinction of having one of the most well educated resident populations in the nation. The presence of the University System of Maryland makes the most significant contribution to Maryland's "industrial competitive advantage" in terms of a highly qualified workforce, which enables businesses to compete more effectively regionally, nationally, and globally. The USM is critical to the state's maintaining this competitive advantage.

In 2000, among Maryland's four-year degree granting institutions, the USM accounts for the following:

- 66% of the total enrollment
- 69% of the full-time undergraduates
- 77% of the part-time undergraduates
- 64% of the full-time graduate/professional students
- 52% of the part-time graduate/professional students

In 2000, among all public and private colleges and universities in Maryland, the USM awarded:

- 65% of all bachelor's, master's, doctoral, and professional degrees, and 100% of all graduate students in agriculture, architecture, law, library sciences, and public affairs.
- 61% of all doctoral degrees and 100% of all doctoral degrees in agriculture, business, communications, library sciences, and public affairs.
- 80% of all professional degrees, including 76% of the professional health degrees, 100% of the professional law degrees, and 100% of the professional degrees in dentistry and pharmacy.

While the USM has a very wide variety of programs it has a strong focus in training and educating persons in science, health, engineering, and computer related fields critical for Maryland's high technology future. In 2000, of Maryland's four-year public and private institutions, the USM awarded:

- 64% of the computer science degrees
- 56% of the engineering degrees
- 58% of the health related degrees

Economic Development

The USM is a core element of Maryland's academic and scientific infrastructure, containing four of the five research universities in the State and playing a vital role in the generation of new technologies, basic research, and the commercialization of research discoveries in Maryland.

According to the National Science Foundation, in FY 1999, the USM had over \$462 million in total research and development expenditures, accounting for almost one-fourth (24%) of all federal sponsored R&D expenditures in Maryland and for 22% of all industry R&D expenditures in fiscal 1999.

USM member institutions are among the leading research institutions in several important scientific fields vital to Maryland. For example:

- The University of Maryland, Baltimore is ranked 20th nationally in total medical science R&D expenditures and 36th nationally in total life science R&D expenditures
- The University of Maryland, College Park is ranked 8th nationally in total computer science R&D expenditures and 33rd nationally in total agriculture science R&D expenditures.

The USM is also an important generator of commercializable technology, accounting for:

- 43% of invention disclosures
- 38% of new patent applications
- 23% of patents issued to major Maryland universities in FY1999.

According to the Association of University Technology Managers (AUTM), which collects information annually on the licensing activities of major research universities, from 1994 to 1999, a total of 14 start-up companies have formed based on technology developed at USM institutions. In fact, the System is more successful in creating start-up companies *per total research expenditures* based on university formed technology than Johns Hopkins University.

Conclusion

The USM contributes to the state's economy in a variety of ways. The USM enhances the skills of its students, significantly increasing their opportunities in the workplace; the increased earnings of USM graduates, which are directly attributable to their level of education, generate additional state revenues; it is a source of educated and skilled workers for Maryland employers; it provides valuable services to businesses; it generates new technologies through research and development; and it contributes to the quality of life in Maryland through its community service activities. The USM's positive economic impact on the State of Maryland considerably exceeds the State's investment in the System.

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BOARD OF REGENTS

SUMMARY OF ITEM FOR ACTION, INFORMATION OR DISCUSSION

TOPIC: Convening Closed Session

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: March 17, 2011

SUMMARY: The Open Meetings Act permits public bodies to close their meetings to the public in special circumstances outlined in Subtitle 5, section §10-508(a) of the Act. The open session of today's meeting will be adjourned following completion of the regular public agenda, and the committee will reconvene in closed session to discuss issues specifically exempted in the Act from the requirement for public consideration.

As required by law, the vote on the closing of the session will be recorded. In addition, a written statement of the reason for closing the meeting at this time, including a citation of the authority under §10-508(a) and a listing of the topics to be discussed, is attached.

ALTERNATIVE(S): No alternative is suggested.

FISCAL IMPACT: There is no fiscal impact.

BOARD ACTION:

DATE: March 17, 2011

SUBMITTED BY: Joseph F. Vivona (3100 445-1923)



STATEMENT REGARDING CLOSING A MEETING OF THE USM BOARD OF REGENTS

Date: March 17, 2011

Time: 2:00 p.m.

Location: Towson University

STATUTORY AUTHORITY TO CLOSE A SESSION State Government Article §10-508(a):

- (1) To discuss:
- (i) The appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom it has jurisdiction; or
 - (ii) Any other personnel matter that affects one or more specific individuals.
- (2) To protect the privacy or reputation of individuals with respect to a matter that is not related to public business.
- (3) To consider the acquisition of real property for a public purpose and matters directly related thereto.
- (4) To consider a preliminary matter that concerns the proposal for a business or industrial organization to locate, expand, or remain in the State.
- (5) To consider the investment of public funds.
- (6) To consider the marketing of public securities.
- (7) To consult with counsel to obtain legal advice on a legal matter.
- (8) To consult with staff, consultants, or other individuals about pending or potential litigation.
- (9) To conduct collective bargaining negotiations or consider matters that relate to the negotiations.

- (10) To discuss public security, if the public body determines that public discussions would constitute a risk to the public or public security, including:
- (i) the deployment of fire and police services and staff; and
 - (ii) the development and implementation of emergency plans.
- (11) To prepare, administer or grade a scholastic, licensing, or qualifying examination.
- (12) To conduct or discuss an investigative proceeding on actual or possible criminal conduct.
- (13) To comply with a specific constitutional, statutory, or judicially imposed requirement that prevents public disclosures about a particular proceeding or matter.
- (14) Before a contract is awarded or bids are opened, to discuss a matter directly related to a negotiation strategy or the contents of a bid or proposal, if public discussion or disclosure would adversely impact the ability of the public body to participate in the competitive bidding or proposal process.
- Administrative Matters
- Consideration of the impact of possible and proposed legislation on the operation of USM under existing law and established policy.

TOPICS TO BE DISCUSSED:

Budget strategies given possible legislative outcomes.

Possible creation of a position for an individual to handle economic development/technology commercialization at the systemwide level. Discussion will include roles and responsibilities, relations with the campuses, reporting relationships and funding sources and is expected to include discussion of specific individuals' appropriateness to the role.

REASON FOR CLOSING:

For the purposes listed in this closing statement and in order to comply with State Government Article section 10-508(a).