

## CHALLENGES FACING EMORY AND OTHER RESEARCH UNIVERSITIES

In the process of considering research at Emory, the commission addressed issues that are part of an ongoing debate about the future of the research university. Over the last fifty years, both the U.S. government and private industry have increased substantially their support of research in higher education; as a result, the U.S. economy has benefited from a surge of research-related advances in fields such as information technology and pharmacology. But this rapid growth and investment has not come without a price. As Jonathan Cole observed in 1993 from his position as provost of Columbia University, research universities face complex choices on how best to define their academic priorities in the face of powerful entrepreneurial pressures. Some of this pressure is the result of business and government offering greater incentives to conduct research that advances their specific aims, rather than furthering the overall educational mission of the university.

Other pressure comes from within the institution. Since the passage of the Bayh-Dole Act in 1980, nonprofit organizations have been allowed to patent inventions from government-funded research. Revenue-generating work in such areas as genetics and biotechnology can, in the words of Derek Bok, the past president of Harvard University, turn “knowledge into money.” Increasingly, the modern research university is being defined by the media and public as departments that generate financial windfalls in licensing and patents.

Several issues that also are driving a national debate have great relevance for Emory’s development. How should a university increase sponsored research and corresponding revenues while promoting integrity in research choices and scholarly conduct? How can the research university maintain strong departments and units based on disciplinary expertise while encouraging collaborative interaction across departments and units? Finally, how can the university create an environment where scholars’ interests and passions will thrive?

**4** Four areas of particular concern for U.S. research universities were identified by the commission: adapting to new opportunities, supporting scholars as knowledge expands, easing tension between scholars and the home institution, and addressing threats to academic integrity.

***Adaptation.*** How can research universities best adapt to and leverage new markets of research funding while preserving their traditional academic core and teaching mission? Universities must find a way to balance investment in research centers and other hybrid organizational forms (particularly in the empirical sciences and professional education) with investment in academic departments, particularly those that are under-funded in the basic sciences and the arts and humanities. Universities should consider using new forms of revenue from licensing and technology transfer to advance excellence across an institution.

***Support for Scholars.*** How can research universities best nurture the work of scholars related to both disciplinary expertise and new forms of collaboration across areas of expertise? As the demand increases for new knowledge to address complex scientific and social problems, so does the need for new scholarly approaches. The university must consider new kinds of support that respond to this rapidly changing environment. Furthermore, the university must ensure adequate time for scholarly reflection and maintain a quality of life sufficient to attract top scholars in the face of rising expectations for academic excellence and service.

***Scholars and their Institutions.*** Given the different practices and needs of various cultures of research, how can research universities best support local, national, and global networks of scholars? The university must address tensions in the relationship between individual scholars and their home institution by maintaining a strong intellectual community that promotes satisfaction and loyalty. At the same time, the university must acknowledge the needs for scholarly interaction and collaboration across national and international communities.

***Academic Integrity.*** What principles and practices should guide the research university in maintaining academic integrity

as it increasingly pursues government and commercially sponsored research support? Universities should define specific criteria about what kinds of research grants or gifts to accept. With rising support from external sponsors, universities must increase their encouragement and vigilance regarding the integrity of research conduct among individual scholars.

The four principles and their concomitant recommendations put forth by the Commission on Research at Emory address important aspects of adaptation, mission, research support, relationship between scholars and their institutions, and academic integrity. In its principle naming “ideas, their corresponding modes of inquiry, and their intellectual communities” as the primary drivers of research activities, the commission recognized both the potential and danger in responding to the market for research funding. The university must be guided by intellectual integrity rather than money in how it sets its research priorities. To help ensure the scholarly viability of the arts and sciences, the commission has recommended strengthening the structure of the Graduate School to better support graduate education and faculty development.

The commission also recognized the importance of safeguarding the conduct of individual researchers, while acknowledging Emory’s strong culture of integrity. For example, Emory has recently become one of the first research universities in the United States to implement a process that addresses institutional conflicts of interest in research, complementing an existing policy focused on individual researchers that has been in place for several years. The new policy calls for the creation of a standing External Review Committee composed of individuals drawn from academia, industry, and government, and who are not dependent on Emory in any way, either financially or otherwise. To further ensure integrity in the conduct of research, the commission has recommended establishing an ombudsperson to help resolve ethical issues that may arise in the normal course of research activities. To help facilitate the review and approval of research proposals, the commission suggested judiciously streamlining human subject and animal protection procedures, as well as those concerning biosafety.

Even as the commission stressed the importance of preserving the academic core, it also suggested ways of creating new structures to adapt to new funding opportunities, particularly con-

cerning cross-disciplinary scholarship. In one recommendation designed to increase the breadth of research activity, the commission proposed that the university establish a venture capital fund that provides seed and bridging money to establish centers of research excellence involving collaborative scholarship. The fund would tap into patent income and other internal funding streams and would be limited to three years or until such time that newly established centers are self-supporting.

Recognizing how support for scholarship must be enhanced as research becomes more collaborative, the commission advised Emory to make a deeper commitment to supporting and advancing the research activities of its faculty. In addressing the global research profile of the university, the commission has recommended a commitment to research as part of an upcoming capital campaign that would extend to faculty growth (with targeted hiring), increased support for graduate students, and developing an undergraduate research program. The commission also has focused on the individual needs of scholars by stressing the importance of creative collaboration among faculty and administrative leaders to strengthen scholarship and provide an infrastructure that “enables” rather than “impedes” scholars. To this end, the commission focused on improving the human capital required for research, as well as recommending increases in resource allocation to retain outstanding faculty. Such resources would include competitive salaries and benefits, office and research space, undergraduate and graduate students, postdoctoral fellows, and internal research funds.

To better safeguard the quality of life necessary to produce excellent scholarship, the commission has recommended an “explicit allocation of time” among the duties of research, teaching, and service. More specifically, recommendations addressed new ways of structuring teaching duties to allow more flexibility for research, more flexible approaches to faculty needs at different career stages, and allocating service commitments more meaningfully and equitably. Other recommendations to ease the pressures on faculty work life included enhancing information technology resources, reducing barriers to research from inflexible human resources policies, and providing state-of-the-art statistical facilities.

The commission has also examined the relationship between scholars and the university. In one principle, the commission rec-

ognized the primary responsibilities of scholars for the “evolution and dissemination of knowledge and the articulation of intellectual priorities.” This principle further stressed creative collaboration of administrative and faculty leaders in determining those priorities. Increased collaboration of faculty among themselves and with administrators is aimed to help better integrate faculty into the life of the university. To help ensure a broad range of faculty participation in the direction and mission of the university, the commission has recommended that faculty should participate in budgetary decision making and in developing an action plan that will establish priorities for growth in research faculty and facilities.

Ultimately, the balance between faculty’s commitments to the local university and global professional communities remains delicate. The commission recognized that a vibrant intellectual community requires an appropriate mix of intellectual activities across the university while encouraging faculty to extend their intellectual networks beyond the confines of the campus. For this reason, one recommendation of the commission articulated ways to permit externally funded leaves during the teaching year to enable faculty to pursue outside research opportunities while using these funds to sponsor visiting faculty, postdoctoral fellows, and lecturers.