

**ANNUAL REPORT  
OF  
THE RESEARCH COUNCIL OF THE FACULTY SENATE  
ACADEMIC YEAR 2005-2006  
UNIVERSITY OF MASSACHUSETTS AMHERST**

**Presented at the  
663<sup>rd</sup> Regular Meeting of the Faculty Senate  
May 17, 2007**

**2005-2006 Research Council Membership**

**Jenny Adams – English  
Iqbal Agha – Finance & Information Management  
Charles Clifton - Psychology  
Kourosh Danai – Mechanical & Industrial Engineering  
Andrea Foulkes – Public Health  
Dorothy Gilbert - Nursing  
Mason Lowance - English  
David Ostendorf – Civil & Environmental Engineering  
William Patterson – Natural Resources Conservation  
Stanley Scarpati – Education  
Jay Schafer – W.E.B. DuBois Library  
Lynnette Leidy Sievert - Anthropology  
Jean Swinney - Nursing  
Martha Taunton – Art  
Paul Utgoff – Computer Science  
Juan Zamora – Spanish & Portuguese  
Tony Butterfield - Graduate Council Designee  
Paul Kostecki – Vice Provost for Research  
Michael Malone – Provost’s Designee  
Ernest May – Faculty Senate  
Krishna Melnattur – Graduate Student Senate  
Elizabeth Glogowski – Graduate Student  
John Mullin – Dean of the Graduate School  
Carol Sprague – Office of Grant & Contract Administration**

**Submitted by  
Paul Utgoff, Chair  
Research Council, 2005-2006**

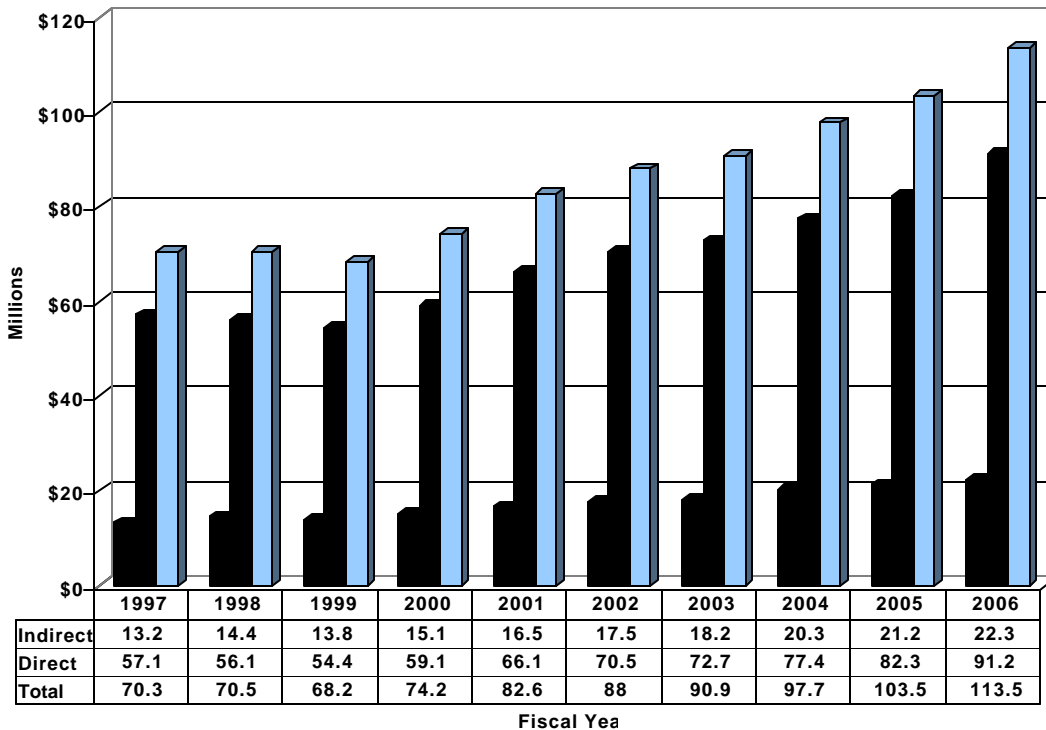
*Charge: This Council shall: (a) advance the research mission of the University; (b) advise the administration on policy issues and major changes regarding research trust fund expenditures and review annually the RTF prior fiscal year; (c) review and make recommendations regarding the awarding of research and scholarly oriented grants and awards such as Faculty Research Grants, Healey Endowment Grants, Faculty Fellowships, and Faculty Research Grants for Conference Travel; and (d) review applications for research grant programs which limit the number of applications and institution may submit such as the David and Lucile Packard Fellowship and the National Science Foundation Major Research Instrumentation Program.*

The Research Council met monthly during the academic year, and its minutes are posted on the Council web site. The Council activities were primarily carried out through the Grant and Fellowship Review Panels as well as the Research Policy Committee, Responsible Conduct of Research Committee, and Research Centers and Institutes Committee.

### Measures of Research Productivity

Research Council tracks several indicators of the success of the campus research mission. The chart below, provided by OGCA, shows research expenditures for the past ten years. The numbers indicate a 9.66% increase in total expenditures from FY05 to FY06, and a 5.47% overall increase year to year from FY97 to FY06.

Direct, Indirect & Total \$ Expenditures FY 1997 - 2006



A second indicator is the number of Tenure System PIs and Co-PIs. The following table of information, from the Office of Institutional Research shows a relatively steady level of participation in sponsored research.

|       | Tenure System Faculty | Number with Awards | % with Awards |
|-------|-----------------------|--------------------|---------------|
| FY.04 | 948                   | 435                | 45.9%         |
| FY.05 | 944                   | 415                | 44.0%         |
| FY.06 | 982                   | 453                | 46.1%         |

A third set of measures relates to the growing cost of graduate research assistants. The following table of information, provided by the Graduate School, shows total campus RA headcount and total campus RA FTEs (full time equivalent, with 760 hours per year considered full time) for the past eleven years.

|               | AY<br>95.96 | AY<br>96.97 | AY<br>97.98 | AY<br>98.99 | AY<br>99.00 | AY<br>00.01 | AY<br>01.02 | AY<br>02.03 | AY<br>03.04 | AY<br>04.05 | AY<br>05.06 |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| RA Head Count | 1,602       | 1,571       | 1,523       | 1,736       | 1,764       | 1,794       | 1,847       | 1,867       | 2,052       | 1,899       | 1,859       |
| RA FTEs       | 1,128       | 1,145       | 1,085       | 1,210       | 1,252       | 1,285       | 1,374       | 1,435       | 1,451       | 1,331       | 1,343       |

The following table shows snapshot data for Post-Doc (PD) and Research-Fellow (RF), regular and senior, aggregated FTEs, for each of the past three years.

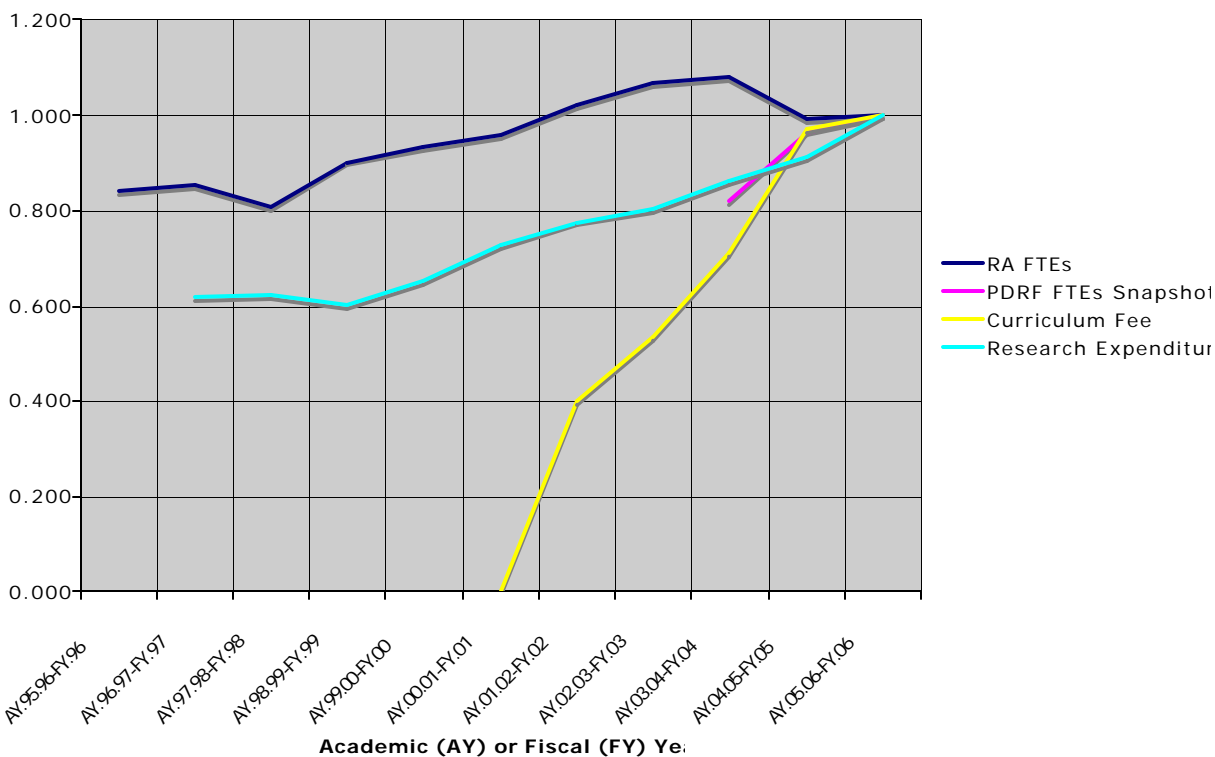
|                     | AY<br>03.04 | AY<br>04.05 | AY<br>05.06 |
|---------------------|-------------|-------------|-------------|
| PD&RF FTEs snapshot | 203         | 239         | 248         |

The following table shows the Graduate Curriculum Fee rate since its inception in FY 2002. There is a more complicated assessment schedule that depends on the grant dates for supported RAs, so one should not extrapolate from the fee schedule given in simple form here.

|                        | AY<br>01.02 | AY<br>02.03 | AY<br>03.04 | AY<br>04.05 | AY<br>05.06 |
|------------------------|-------------|-------------|-------------|-------------|-------------|
| Curriculum Fee per FTE | 1,982       | 2,650       | 3,504       | 4,796       | 4,940       |

The trends for research expenditures, RA FTEs, Post-Doc & Research-Fellow FTEs snapshot, and curriculum fee are plotted jointly in the chart below. Due to the differing units of measure, every series has been normalized by dividing its values by the value for Academic Year 2005-2006. For this reason, every trend line ends at 1.0 in the final year. We note that RA FTEs have been trending downward at the same time that PDRF FTEs have been trending upward. The simultaneous expansion in total research expenditures and contraction in RA FTEs suggests a reduced role for Research Assistants in the campus research mission. These data suggest that a shift may be taking place in choice of category of research personnel. A conversation commenced with Graduate Council and the Graduate Dean, which will continue in the coming academic year. The purpose is to identify those cost factors that may be making Research Assistants less attractive compared to other alternatives.

Trends (Normalized)



## Grant and Fellowship Review Panels

### Faculty Research and Healey Endowment Grants

The internal grants programs of the University are one of the key activities of the Council. The Faculty Research and Healey Endowment Grants were awarded for the 2005 - 2006 Academic Year. Modeling itself after peer-review groups of the Federal Government, the Council provided critical commentary and constructive feedback on 50 Faculty Research and Healey Grant proposals for a total of \$843,101. The Council awarded 25 Faculty Research and Healey Grants for a total of \$455,715, as summarized in Table 1. The Table suggests that the Grants are distributed across six Colleges, and all six Colleges provided the required matching funds. The Provost supported the matching initiative, predicated on tracking of FRG deliverables such as externally funded proposals and scholarship facilitated by the awards. The ORA has tracked these deliverables in the past, and will continue to do so with one extra measure: OGCA proposals stimulated by the FRG will be tracked to completion, so that follow on extramural awards may be identified, along with the existing measures of program productivity.

Table II, prepared by the Office of Research Affairs, indicates that the Faculty Research Grants and Healey Endowment Grants are effective in increasing several important measures of research productivity. Notable among these is the development of 20 proposals for external funding for a total of \$11.9 million dollars (proposed). **We are pleased to have OGCA's confirmation that \$6,304,055 of these proposals have been awarded thus far. This indicates that Faculty Research Grants are excellent investments.**

**TABLE 1 – FACULTY RESEARCH/HEALEY ENDOWMENT GRANTS AY05-06**

| <b>FACULTY RESEARCH/HEALEY ENDOWMENT GRANTS</b> |                  |                  |                        |                  |                         |                  |
|---|------------------|------------------|------------------------|------------------|-------------------------|------------------|
|   | <b>Requested</b> |                  | <b>FRG/HEG Awarded</b> |                  | <b>Matching Awarded</b> |                  |
| <b>SUMMARY</b>                                  | <b>#</b>         | <b>Amount</b>    | <b>#</b>               | <b>Amount</b>    | <b>#</b>                | <b>Amount</b>    |
| Education                                       | 2                | \$18,702         | 0                      | \$0              | 0                       | \$0              |
| Engineering                                     | 5                | \$137,500        | 3                      | \$38,750         | 3                       | \$38,750         |
| Natural Resources & the Environment             | 7                | \$153,800        | 4                      | \$41,575         | 4                       | \$41,575         |
| Humanities & Fine Arts                          | 10               | \$113,478        | 7                      | \$39,354         | 7                       | \$39,354         |
| Management                                      | 3                | \$15,000         | 0                      | \$0              | 0                       | \$0              |
| Natural Science & Mathematics                   | 5                | \$139,163        | 3                      | \$42,081         | 3                       | \$42,082         |
| Nursing   | 4                | \$41,993         | 0                      | \$0              | 0                       | \$0              |
| Public Health & Health Sciences                 | 5                | \$112,213        | 2                      | \$25,250         | 2                       | \$25,250         |
| Social & Behavioral Sciences                    | 9                | \$111,252        | 6                      | \$40,669         | 6                       | \$41,025         |
| <b>TOTALS</b>                                   | <b>50</b>        | <b>\$843,101</b> | <b>25</b>              | <b>\$227,679</b> | <b>25</b>               | <b>\$228,036</b> |

**TABLE II**

**Faculty Research Grant Questionnaire Results  
Projects Closed Out - Fiscal Year 2006**

|                        |  |              |                      |
|------------------------|--|--------------|----------------------|
| <b>Total Responses</b> |  | <b>28</b>    |                      |
| <b>Primary Purpose</b> |  |              |                      |
| a)                     | New area of development  | <b>20</b>    |                      |
| b)                     | Emergency “carryover” funding  | <b>1</b>     |                      |
| c)                     | Primary Support  | <b>4</b>     |                      |
| d)                     | Develop competence   | <b>3</b>     |                      |
| e)                     | Other  | <b>--</b>    |                      |
| <b>Results</b>         |  | <b>Total</b> | <b># of Projects</b> |
| a)                     | Development of a proposal for External funding ( <b>\$11,919,357</b> ) | <b>20</b>    | <b>16</b>            |
| b)                     | Article preparation in journals  | <b>44</b>    | <b>21</b>            |
| c)                     | Preparation of abstracts and/or Professional society meetings          | <b>83</b>    | <b>22</b>            |
| d)                     | Other  |              |                      |
|                        | Book Project   | <b>3</b>     | <b>2</b>             |
|                        | Grad. & Undergrad. Research  | <b>1</b>     | <b>1</b>             |
|                        | Preliminary data for proposal  | <b>1</b>     | <b>1</b>             |
|                        | Co-PI on grants  | <b>1</b>     | <b>1</b>             |

**Samuel F. Conti Faculty Fellowships**

Faculty Fellowship awards are made in recognition of distinguished research and scholarly achievements. Each year a committee of the Council receives recommendations from the Schools

and Colleges and identifies the fellows for the next academic year. The awardees for the 2006-2007 academic year are:

- Professor Salvatore Macchia, Music & Dance
- Professor Peter A. Monson, Chemical Engineering
- Professor Margaret Speas, Linguistics

**The Council acknowledges and appreciates the curricular and financial support provided by the Deans for our Conti honorees.**

### **Research Policy Committee**

Lynnette Leidy Sievert, chair

At the first meeting of the Research Policy Committee, we reviewed 12 on-going concerns that could be addressed by some subcommittee of the Research Council. We decided to direct our efforts toward improving the research mentoring process.

During the Fall, we looked at examples of mentoring programs at other institutions, met with Mary Dean Sorcinelli, Associate Provost, and attended a seminar on the importance of mentoring that was presented to the University community by Norman Cohen. By November 21, we had formalized our ideas into a statement of the problem.

Through the Spring, we met to compose and revise drafts of Recommendations for the Campus Research Community. These Recommendations were divided into University-level recommendations, Intra-College recommendations, and Intra-Departmental recommendations. On May 5, 2006, the final draft memo to Provost Charlena Seymour was approved by Research Council, and sent to the Provost. The memo is included as an appendix.

### **Responsible Conduct of Research and Scholarship Committee**

Charles Clifton, chair

1. The Subcommittee surveyed all available University of Massachusetts policies that appeared to be relevant to the Responsible Conduct of Research and Scholarship (RCRS) with the goal of identifying topics where additional or modified policies might be needed. The topics considered to be relevant to RCRS were taken from the Office of Research Integrity's book *Introduction to the Responsible Conduct of Research*, and are research misconduct, protection of human subjects, welfare of laboratory animals, conflicts of interest, data management, mentor and trainee responsibilities, collaborative research, authorship and publication, and peer review.
2. The audit of policies resulted in the following recommendations:
  - A. The existing Conflict of Interest policies should be examined with an eye toward better integrating them with one another.
  - B. A clear policy on Data Management and Access should be developed.
  - C. The current University policy on allocation of authorship credit should be examined and revised if necessary.
  - D. Other policies relating to the topics listed previously appeared to be adequate, although the Research Council should remain alert to need for new policy on allocating credit in collaborative research.

The Subcommittee noted that the Research Policy Subcommittee was working on one topic in RCRS, namely, mentor and trainee responsibilities.

3. The Subcommittee, in collaboration with the Graduate Council and the Chair of the Research Council, developed two new policy proposals, which were approved by the Research Council for submission to the Faculty Senate. The first policy proposal was "Policy Statement on Joint Authorship at the University of Massachusetts Amherst" and the second policy proposal was "Data Ownership, Retention, and Access at the University of Massachusetts Amherst." These policy proposals were considered and approved by the Faculty Senate at its May 18, 2006, meeting, as Faculty Senate Motions 45-06 and 52-06, respectively. They are attached as appendices.

4. In discussions throughout the 2005-2006 year, the Subcommittee considered several other topics, including (a) policies and practices of training members of the University community in RCRS and (b) the desirability of making information about RCRS policies and practices easily accessible to the University community, perhaps through an attractive web site.

### **Research Centers Committee**

Jean Swinney, chair

Several meetings were held to gather information to more clearly define the assignment given to us by the Research Council.

Following a meeting with Ernie May regarding the evaluation of research centers, we received copies of the Board of Trustees document T96-096, as amended 10/9/1996, entitled 'University of Massachusetts Policy on Centers and Institutes,' and Faculty Senate Document 97-027, dated 2/20/1997, entitled 'Special Report of the Rules Committee concerning The UMass/Amherst Policy on Centers and Institutes.

It was understood that the Board of Trustees document calls for review of each center or institute at least every five years, and that we (as a campus) have not been doing this. Though the trustees have not yet noticed, they could at any time, in which case we could be found not to have complied.

Therefore, it was believed that the task and scope of the committee's work should be guided and limited by the Board of Trustees document.

While the impetus for the review process had come from the Faculty Senate, it could have come as well from Administration. As the Research Council represents the Senate, and works with Administration to advance the campus research mission.

For that reason, an Evaluation Form was developed by the committee. A meeting was held with Paul Kostecki regarding the Form. Paul Kostecki felt the Evaluation Form was good and made two recommendations. In addition, he felt any information present in the Form should also conform to information in the Faculty Senate documents on Research Centers and Institutes.

After again reviewing all documentation on Research Centers and Institutes and discussions held with Ernie May and Paul Kostecki, it was felt that the responsibility of evaluating Research Centers and Institutes belonged to the Provost and not the Research Council. It was decided that the Evaluation Form will be reviewed collectively by the committee and then forwarded to Paul

Kostecki and the Research Council for their consideration and action. The form was approved by Research Council and sent to Vice Provost Kostecki.

It was also agreed that the completion of the Evaluation Form concluded the work of the committee in behalf of the Research Council for the 2005- 2006 academic year.

## **Appendix 1 – memo regarding faculty mentoring**

May 5, 2006

To: Charlena M. Seymour, Provost  
From: The Faculty Senate Research Council  
Re: Faculty Research Mentoring: Recommendations for the Campus Research Community  
Cc: Paul Kostecki, John Mullin, Mary Deane Sorcinelli

### Preamble

As a University, we have not had to think about growth for a long time. That has changed with the Chancellor's 250 Plan. With the increased number of faculty hires, the scale and scope of our faculty development needs are greater than they have ever been. What are we going to do to ensure the research and scholarly success of our new hires? In the interest of promoting synergism across the campus, we address these recommendations for faculty research mentoring to all levels of the University. These are recommendations, not mandates. Some departments already implement some of the best practices that we propose. These recommendations are put forward as a means to improve the research productivity of all faculty here at UMass Amherst.

### University-level Recommendations:

#### Gather data

- (1) We wish to see, annually, a report that shows the following data: how long does it take new faculty to submit their first extramural grant proposal? Does this happen by the first, second, or third year? What is the breakdown by department?
- (2) We wish to see a report that shows how many faculty stay at UMass to the point of tenure and beyond. Institutional research does not study the retention of faculty, although they have data that could be used for that purpose.
- (3) Is the loss of faculty at tenure due to a lack of research? Is the lack of research due to a lack of mentoring? The answer to these questions will require time-intensive study. We recognize that some faculty with adequate mentoring do not meet expectations; however, some faculty apparently receive no mentoring at all. We would like to see the provost's office give answers in the aggregate regarding tenure (yes/no) and characterization of research, teaching, and service (poor, fair, strong, excellent). We would like to see the collection of qualitative interview data, and we want these results made available to the Research Council.
- (4) We would like to see exit interviews carried out and analyzed for all faculty who leave UMass prior to retirement. We want the Provost's Office to create an exit interview form that allows us to identify barriers to research that faculty have encountered.

#### Increase communication

- (5) Facilitate deans talking to deans to share the models of research mentoring that work in different

colleges. The mechanism for this is already in place. The deans meet with the research administration in once/month meetings

(6) Provide a mechanism for department heads/chairs to talk to department heads/chairs across colleges to share models of research mentoring. One possibility could be research mentoring as a session topic at the annual heads and chairs conference.

(7) Continue to promote the research that is happening around the University to the entire UMass community.

Promote seminars

(8) Continue Bruce McCandless' seminars on proposal writing.

(9) Continue "Preparing for Tenure" seminars with a greater emphasis on research and funding sources.

Fund new initiatives

(10) UMass should be as proactive about research development as it has been about teacher development. Develop a Center for Research modeled after the Center for Teaching with similar programs and perks (e.g., a release from teaching for one fellowship, a new computer for another) with the stipulation that faculty develop externally funded research and scholarship. Responsible conduct of research should be included in the curriculum. Representatives from extramural funding agencies and campus experts could be brought in as guest speakers.

(11) Provide Departmental Research Grants (DRG) for faculty research mentoring to encourage research among junior and senior faculty. Follow up by evaluating the 4.2 reviews for research of untenured faculty, and funded research productivity of all faculty. For example, departments could propose release time from teaching, workshops, or group lunches with the goal of supporting grant development.

(12) Endow a mentoring table at the faculty club (the VPR mentoring lunch) where once per week two faculty from different colleges, two heads (chairs, or associate heads) or directors of centers or institutes from different colleges, or two deans or associate deans from different colleges are paired to discuss faculty research mentoring. Departments with different strengths in research should be paired, for example, Art and Art History paired with Computer Science. The office of research affairs should coordinate the pairing.

Intra-College Recommendations:

(1) Develop and implement initiatives to increase research productivity. The Center for Research on Families in the College of Social and Behavioral Sciences is one successful model. Meetings twice a week with lunch encourage grant writing through accountability (updates of progress), and through statistical and logistical support. The benefit of this model is that it jump starts new faculty into a focus on funded research, and it gives a nudge to established faculty who have gotten comfortable in their academic trajectory. The limitation of this model is that it only lasts for one year. Another model comes from departments and colleges where a pre-review panel evaluates grant proposals prior to submission.

(2) Invest in grant-writing assistance Models for this range from a network of people who know how to do budgets (CSBS) to someone who actually writes grants for investigators (Nursing). Pre-qualify the grant-writers in the Connecticut Valley to better facilitate the availability of proposal writing resources to the research community.

(3) Encourage faculty to make better use of automated alert services such as IRIS, COS, NSF, or NIH.

(4) Pair new faculty members with established faculty who share common research interests, but who reside in different departments within the college.

Intra-Departmental Recommendations:

- (1) At the time of hire, stress the relative importance of research and scholarship, and then maintain continuity of the rules. Spell out that a new faculty member could make up to an additional 33% of their salary during the summer on sponsored research projects. Provide funds for an undergraduate assistant. For example, some engineering faculty are given an undergraduate assistant for up to 10 hours per week for the first two years. Explicitly state that new hires are expected to pursue research funding and scholarship as appropriate to the discipline.
- (2) Develop a checklist for new faculty to review each year, for the first three years or longer. The checklist could be administered by either the Chair of the personnel committee or the Chair/Head of the department. Ask really obvious questions such as (a) what journals are you going to submit to? (b) what conferences are you going to attend and when are the abstract deadlines? (c) what is your research time line? (d) who funds what you do and what are your grant submission plans? (e) who will write your external letters?
- (3) Provide a rotating course release so that at any time at least one (or two or three) faculty member(s) in the department has a course release to write a grant proposal. (This could be funded by the DRG program, see above in University-level recommendations.)
- (4) Provide travel money. It is impossible to put a price on the value of networking for nurturing collaborative grants.
- (5) Use the AFR personnel committee and department head/chair paragraphs as an opportunity to evaluate faculty members' progress in order to tailor research mentoring.

## **Appendix 2 – Joint Authorship Policy**

(jointly with Graduate Council)

### **POLICY STATEMENT ON JOINT AUTHORSHIP AT THE UNIVERSITY OF MASSACHUSETTS AMHERST**

Approved by Research Council on May 5, 2006.

*A modification of a policy adopted by the Graduate Council, April 2, 1990, which is available at <http://www.umass.edu/research/ogca/policies/jntauth.htm>*

The authorship of any published scholarly work must reflect the contribution of all who deserve to be included. It is the responsibility of the faculty member or other person in charge to guarantee that fairness and accuracy are exercised in listing the authors.

The research process includes conception, design (procedures, method), data collection, data analysis, and manuscript preparation. The relative importance of each facet of research can vary among projects and among disciplines. The determination of who is listed as an author, in what order, should be based on the magnitude of contribution made to each facet of the research and on the relative importance of each facet. All authors should have made some significant contribution to the research, and their responsibilities should determine the way they are listed in any resulting manuscript. All parties involved in the research should jointly determine authorship when it is clear that a decision about eventual authorship will need to be made. When appropriate, the nature of each author's contribution can be described in the publication.

At the University of Massachusetts, much research involves a professor-student relationship with varying contributions possible from each. Publication or circulation of scholarly work is integral to graduate education. Therefore, graduate students should be vigorously encouraged to participate in

the research process. Some general guidelines should prevail. If the student is given and accepts primary responsibility for all areas of a research project, the student should be first author of manuscripts, or sole author if the professor has not made substantial contributions to the study. If the professor conceives and designs a project and is instrumental in other areas of research, the professor should be first author. It is generally inappropriate for a professor to be sole author of the primary report of original research conducted by a student as part of the requirements of a degree.

These are general conditions, but special ones may also obtain. 1. Directors of research units or laboratories should not automatically be authors on research publications from their research organization, nor should authorship be automatically tied to providing funding for research. 2. Simply executing a job for which pay is taken (e.g., collecting data) does not automatically convey the right to authorship. Significant contributions to the research must be made. 3. Student papers written as part of course requirements should not be co-authored by the professor unless the professor has made a significant contribution to the paper at some phase of the project, including revising the manuscript after it was submitted to fulfill course requirements.

Since each scholarly work has its unique features and history, no set of objective criteria can address every conceivable type of joint authorship circumstance. The proper and fair acknowledgment of the actual contributions of colleagues, students, and staff remains the duty of the person circulating the work or submitting it for publication. In making the decision on authorship only professional considerations should be taken into account. Under no circumstances should authorship be used for a purpose other than to reflect on the contribution of the collaborators to the work in question. In cases of doubt about proper credit, consultation among the collaborators and with colleagues, the Department Head, and/or the Dean is encouraged. In such discussions, the following specific guidelines may be useful, although they are not intended to be in any way binding:

1. If a contribution is of a clearly technical nature (such as performing routine chemical analyses, transcribing interview records, or tabulating raw data), an acknowledgment could be sufficient. The same applies to professional help such as material preparation and instrument construction, drafting, statistical or computer assistance, and so forth.
2. If, however, the central topic of the publication is the presentation or evaluation of a technique (including computer software), then a technical contribution may be of sufficient importance to merit authorship.
3. If an individual suggested an idea that had an impact on the work development but did not actively participate in its implementation, acknowledgment of the contribution will be sufficient.
4. If an individual contributed a key idea or ideas, and/or made other substantial creative contribution to the work in its design, execution, interpretation, and/or summary, then (s)he is entitled to authorship.
5. A graduate student whose thesis work is used as the major source of material for a publication is entitled to authorship. However, (s)he is not automatically entitled to authorship if some material from the thesis is used in a review paper, proposal, progress or final report written by the advisor or project director. In such a case, a reference to the material's origin is sufficient.
6. And finally, administrative or financial responsibility by itself does not merit authorship.

Despite these guidelines, co-authorship is often difficult to allocate. In the case of professor and student, it should be allocated generously to the student in doubtful cases. In every case, however, it is essential to discuss co-authorship with all possible collaborators before and at each step during the project so that misunderstandings will be less likely to arise at the time of publication.

On occasion, authorship credit may be disputed. In such a situation, any or all of the involved parties are entitled to use the services of the University Ombudsperson, without threat or fear of reprisal. Of course, if any party believes that an instance of misconduct has occurred, the University's policy regarding Charges of Misconduct in Research and Scholarly Activities may be invoked.

## **Appendix 3 – Data Ownership, Retention, and Access Policy**

### **Data Ownership, Retention, and Access at the University of Massachusetts Amherst**

Approved by Research Council on May 5, 2006. Forwarded to Faculty Senate on May 5, 2006.

The University of Massachusetts Amherst supports a wide variety of research and scholarly activity. A fundamental component of many research investigations is the creation and use of data. It is in the interest of the research enterprise at large to make such data available to others, to the extent possible. This is important for furthering new research efforts and for enabling others to examine previous research in detail. It is in the University's interest to facilitate these processes, and to assist and protect those who conduct research and scholarly activities on behalf of the University.

#### **External Policies and Guidelines**

Various federal agencies have formulated policies regarding data ownership, retention, and access. For example, see [Part C.53 of the Office of Management and Budget's \(OMB\) grants management circular A-110](#), the Council on Government Relations (COGR) document '[Access to and Retention of Research Data: Rights and Responsibilities](#),' Chapter 6 of Steneck's '[Introduction to the Responsible Conduct of Research](#),' and the various requirements regarding research data stated by the National Science Foundation (NSF), the National Institute for Health (NIH), and other government funding agencies. Some publishers impose requirements on the access to data as a condition for publication.

The Amherst Campus policy (this document) applies to all campus research and researchers, regardless of funding source, if any. For sponsored research, any relevant policies of the sponsor shall apply in addition to those provided here. Any apparent conflicts of policies are to be resolved in writing and approved by the Vice Provost for Research prior to accepting an award, contract, or other binding agreement.

#### **Data Definition**

Data shall be construed as all recorded information, regardless of medium, and all actual samples or examples, that were created or gathered and that could serve to influence or support a research finding or conclusion. Data does not include such items as research papers cited by the researcher, preliminary notes or paper drafts, reviews, or related communications, or items that are already the property of others. This definition is intended to characterize current research norms, not to modify them.

### **Data Ownership**

The Amherst campus of the University of Massachusetts is the **owner** or **joint owner** of all data that is created or collected by its employees or contractors, except when the creation or collection of such data is governed by a written agreement or contract to the contrary, approved in writing by the Vice Provost for Research. Terms of the campus policy on intellectual property may apply as well.

When another research institution or entity has joint ownership rights to data, agreed in writing prior to creation of the data, the data shall be owned jointly as agreed. Each such institution shall have unfettered access rights to the original data. Such an institution not holding or serving as custodian for the original data may copy the data and own the copy.

When a creator of data ceases to be an employee or contractor of the University, the creator must leave the data in the physical possession of the owner(s), but will continue to have access rights to the data. The creator may take a copy of the data, at creator's expense.

### **Data Custody**

The researcher(s) who created the data typically serve as the custodian of the University's data. Such researchers act on behalf of the University, without limiting the University's ownership rights. Data may not be removed from the University premises, except on a temporary basis when work occurs elsewhere, without written approval of the Vice Provost for Research. The custodian of the data shall take all reasonable steps to protect the data from damage or loss, including damage or loss due to catastrophic events. The owner of the data shall provide storage space and financial support as necessary to maintain the data. The University may elect to serve as custodian of the data, but may not limit the creator's access to those data.

### **Data Quality**

Data shall be maintained in a manner that prevents alteration or that makes any and all alterations evident. For example, written data should be recorded in a bound notebook with numbered pages. If a datum is revised, the reason for revising it must be documented and dated. Electronic data should be kept on a read-only medium, or in a read-only mode. The creator of data should be able to document and defend any modification of the data.

### **Data Retention**

Data shall be retained for at least three years after its creation. If the data were created as part of a sponsored research project, then the data shall be retained for at least three years after the final report to the sponsor has been submitted, or the ending date of the project, whichever is later. The data shall be retained for a longer period as dictated by any applicable policy or written agreement. If more than one minimum period of retention is deemed to apply, the data will be retained for the longest of these periods. If the data led to the granting of a patent, then the data shall be retained for the life of the patent and its extensions. The data shall be retained while any litigation or legal action or investigation of allegations regarding it is pending. The data shall otherwise be retained for as long as anyone expresses, in writing, an interest in its retention. In no case will the data be discarded or destroyed when it is known to be in use.

### **Data Access**

Researchers shall endeavor to make their data publicly available as soon as possible, and to the extent possible. Access may be delayed while the correctness of the data is being verified, until an initial publication based on the data appears, for the minimum period needed to file a patent application, or for any other reasonable need. Data should be released early if benefit to the public is likely.

No data may be published or made available in a form that would breach a confidentiality. For example, the medical and financial records of an individual are private. The identity of human subjects is also typically held in confidence. The confidential aspects of confidential data are to be protected by both the custodian and the owner of the data. This may include physically securing the data. When a means of hiding the identity of a protected individual or entity is possible, say by the encoding or removal of names, such steps will be taken so that the data may be made public to the greatest extent possible. If the data cannot be made satisfactorily anonymous, it shall not be made public, and the Vice Provost of Research will be informed of the existence of the data and the reasons that it cannot be made public. The creator of the data must make every reasonable effort to release the data in a useful form. If the veracity of confidential research data is challenged, the creator must cooperate with the Vice Provost for Research to devise a means to satisfy the challenge. As owner, the University will defend any challenge, with the cooperation of the researcher. All applicable laws and legal protections regarding confidentiality will be obeyed.

Data that is deemed sensitive may require restricted access or other limitations. The owner and custodian of such data will comply with applicable laws.

Applicable non-disclosure agreements must be honored. However, the Vice Provost must approve any non-disclosure agreement ahead of time and be a co-signer. Such agreements shall generally be of limited duration, to give a sponsor sufficient time to file a patent application or for other protection.

When a collaboration comes to an end, and data was created during the collaboration, each member of the collaboration shall retain access to that data.

## Appendix 4 – Form for Periodic Evaluation of Research Centers and Institutes

University of Massachusetts at Amherst  
Research Centers and Institutes Evaluation

"All centers and institutes are to be reviewed by the Provost at least once every five years, as outlined in Faculty Senate Document 97-027 and Board of Trustees document T96-096. The information requested here is for the purpose of this review."

### I.

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**Name of Research Center or Institute**

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**Funding Sources**

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**Director(s)**

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**Departments Involved in Center**

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**Date of Last Review** \_\_\_\_\_

### II.

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**A. Brief description of the Center or Institute's overall purpose: Including a description of the college/school/departmental interactions**

**B. Brief description of the Center or Institute's projects and activities:**

### III.

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**A. Brief description about the effectiveness of the Center or Institute's projects and activities in carrying out its stated overall purpose in the period since the last review.**

**B. Brief description of the evaluation of the effectiveness of projects and activities.**

### IV.

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**A. Brief description of the Center or Institute's annual budget or fiscal plan.**

- 1) University financial support
- 2) Center/Institute generated financial support

**B. Brief description of the ways that the fiscal plan aided the completion of projects and activities and/or the overall purpose.**