The Madison Institute on Academic Rigor Final Report:

Recommendations to Enhance Academic Rigor at James Madison University

13 October 2011

Institute archivist and report authors are professors

Jody Fagan, Libraries and Educational Technologies

Fletcher Linder, Interdisciplinary Liberal Studies

Nancy Poe, Social Work

The Madison Institute and was made possible by

Dr. Jerry Benson and the Office of the Provost

Dr. Mark Warner and the Office of the Vice President for Student Affairs

Dr. Bob Jerome and the Faculty Senate

Dr. Carol Hurney and the Center for Faculty Innovation

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Preface

This document reports the proceedings, results, analysis, and conclusions of the Madison Institute, a two-day workshop during which faculty representatives examined issues pertaining to JMU's academic culture, and generated recommendations for evaluating and enhancing the rigor of teaching and learning in the university.

The report contains major recommendations from the Madison Institute, some of which stand alone, and others that reference supporting materials presented in subsequent pages of the document. The authors assessed that the stand-alone recommendations should be self-evident to most readers and required little in terms of clarification or further explication. We deemed others, however, as requiring additional explanation or support due to the sensitive or controversial nature of the recommendation, disagreement among participants during deliberations, or uncertainty on matters of evidence. For those items, the authors conducted post-Institute evaluation and research; we provide some of that information in the report as we believe it useful in thoughtful consideration of the merits of any given recommendation.

It should be noted that there was significant diversity of perspectives among Institute participants, and that few of the recommendations presented herein were advanced with unanimous support. This report is the authors' attempt to capture and distill the most salient and consistent themes, and put them forward as representing the general consensus of the participants, while acknowledging the likelihood of dissent within consensus. We believe such wrangling can serve to propel continued efforts to define and enhance academic rigor at the university.

We appreciate the support of the Offices of the Provost and Student Affairs, the Faculty Senate, and the Center for Faculty Innovation in initiating the Madison Institute on Academic Rigor and for affording us the opportunity to participate in its design and implementation.

Finally, and most importantly, we wish to express our gratitude to all of the Institute participants who lent high levels of interest and energy to the institute, and who provided careful review and critique of initial drafts of this report. We recognize and appreciate your significant commitment of time beyond the bounds of the academic year.

Fletcher Linder
(Interdisciplinary Liberal Studies)

Nancy Trantham Poe
(Social Work)

Jody Fagan
(Libraries and Educational Technologies)

Introduction

The Madison Institute was convened in June 2011 as an initiative to engage the Faculty of James Madison University in purposefully and collaboratively examining means to enhance academic rigor across the institution. The call to enhance academic rigor emerged from the multi-year conversations with faculty that are described under section II, below.

It is important to note that the Madison Institute was not charged with determining whether the university as a whole, or any units within the university, currently lacked rigor. The charge was to gather faculty input and recommendations on how we might enhance the various kinds of academic challenges we already provide our students. Proposals focused on actions that faculty, administrators, and students might take now to move forward in what should remain an ongoing, reflective process.

Institute engagement was strong, with the thirty-four participants yet again demonstrating our faculty's commitment to academic quality, collaboration, and student learning. Participants were

Jessica Adolino (Arts & Letters, Political Science)
Jeremy Akers (Health Sciences)
Herb Amato (University Studies)
Scott Arbogast (Student-Athlete Services)
Brain Augustine (Chemistry)
Anna Lynn Bell (University Advising)
Morgan Benton (ISAT)
David Bernstein (Computer Science)
Chip Bolyard (Distinguished Teacher, Philosophy & Religion)
Cannie Campbell (Health Center)
Judy Dilts (College of Science and Math)
Chris Fox (Computer Science)
Lincoln Gray (Communication Sciences & Disorders)
Elisabeth Gumnior (WRTC)
Dana Haraway (Education)
Steven Harper (Business, Engineering)
Phil Heap (Distinguished Teacher, Economics)
Thad Herron (Communication Studies)
Miranda Kitterlin (Hospitality, Sport & Recreation Management)
Alan Kirk (Philosophy & Religion)
Tim Lowers (College of Business)
Vickie Martin (Nursing)
Jenne McCabe (LET/Director of Instruction)
Aaron Nolan (Communication Studies)
Georgia Polacek (Health Sciences)
Chris Rose (Biology)
Kurt Schick (Learning Centers)
Wolf Sherrill (Theatre & Dance)
Julie Solometo (Anthropology)
Brian Utter (Physics)
Jana Walters (Kinesiology)
Toni Whitfield (Communication Studies)
Diane Wilcox (Distinguished Teacher, Education)
Ken Wright (IdLS)

What follows reflects a good-faith effort on the part of the report's authors to

1. communicate positions taken by Madison Institute participants during the institute;

2. note prevalent disagreements among faculty;

3. adjudicate disagreements in light of evidence;

4. review relevant scholarship;

5. incorporate feedback on previous drafts of this report.

The authors take responsibility for any shortcomings in those negotiations.

Section I of the report presents a summary of recommendations. Because some recommendations require support, narratives buttressing these recommendations follow in section IV. Sections II and III describe the Madison Institute background and structure. Section V contains references not archived at http://www.lib.jmu.edu/documents/academicrigor/.

As a final word before embarking on the material that follows, the university community should move forward to collectively enhance rigor mindful of rigor's proper place in a university. Universities worth their tuition should challenge students to achieve beyond what students believe possible. Yet, all of us in institutions of higher education should always remember that rigor itself is not the goal, but rather one of many proven means to motivate and ensure student learning.

I. Recommendations to Enhance Rigor

Recommendation	Implemented by
1. Units should use this report as a resource in their efforts to appropriately challenge students. *Supporting narrative in IV.A, p. 13.*	Admin & faculty
2. Units and individual faculty should frame rigor within the educational mission of the unit and university. *Supporting narrative in IV.B, p. 13.*	Admin & faculty
3. Administrators should support faculty as they appropriately challenge students. *Supporting narrative in IV.B, p. 13.*	Admin
4. The General Education mission should be well communicated to, and better understood by, faculty and students in order to support rigor in the core curriculum. *Supporting narrative in IV.C, p. 14.*	Admin & faculty
5. Extracurricular programming should clearly reflect the mission of the university and should be framed as complementing the core curriculum. *Supporting narrative in IV.C, p. 14.*	Admin & faculty
6. Communicate to students that the dedication of quality time is essential to academic success and intellectual growth. *Supporting narrative in IV.D, p. 15.*	Admin & faculty
7. Faculty should thoughtfully enhance rigor in their own teaching. *Supporting narrative in IV.D. and IV.E, pp. 15 & 16.*	Faculty
8. Academic affairs, deans, and unit heads should be aware of and reward the time commitments made by faculty who appropriately challenge students, especially in large classes. *Supporting narrative in IV.E, p. 16.*	Admin
9. Units should carefully examine and revise, if necessary, how quantitative student evaluations of teaching effectiveness (SETEs) are used in faculty performance review processes. In particular, units should avoid using SETEs as a single measure of teaching performance and academic challenge. *Supporting narrative in IV.F, p. 17.*	Admin & faculty
10. Units should carefully review how they use SETEs, and revise if necessary, for the purposes of improving teaching. *Supporting narrative in IV.F, p. 17.*	Admin & faculty
11. Students should know that professors will teach as if students will appreciate appropriate challenges, and that SETEs provide one of many data points used to measure academic challenge and teaching effectiveness. *Supporting narrative in IV.F, p. 17.*	Admin, faculty, students
12. Faculty should approach SETE feedback openly. *Supporting narrative in IV.F, p.17.*	Faculty

13. When discussing the relationship between rigor and grades in their unit, units should recognize that JMU has very little grade inflation as gauged by the increase in average GPA over time, and that faculty do not share a common philosophy about the use of grades. Units should further note that a "C" average is required to remain in JMU and 7.7% of current undergraduate have GPAs low enough to place them on academic probation or suspension. *Supporting narrative in IV.G, p. 19.*	Admin & faculty
14. Faculty senate and academic council should consider revising the grading system language in the *Undergraduate* and *Graduate Catalog*, with possible changes for the *Undergraduate Catalog* noted below. *Supporting narrative in IV.G, p. 19.* A: high competence at the undergraduate level B: intermediate competence at the undergraduate level C: minimally acceptable competence at the undergraduate level D: some competence, but less than acceptable at the undergraduate level F: no competence at the undergraduate level	Admin & faculty
15. Academic affairs should create a statement regarding JMU's commitment to, and the benefits of, academic challenge. This statement should be included on all relevant internal and external communication, with particular attention to the JMU website, student recruitment, and freshman orientation. *Supporting narrative in IV.G, p. 19.*	Admin
16. Faculty senate and academic council should consider removing late drop dates and withdrawal options. *Supporting narrative in IV.G, p. 19.*	Admin & faculty
17. Units should ensure all faculty, including part-time instructors, are aware of high teaching expectations. *Supporting narrative in IV.H, p. 25.*	Admin & faculty
18. Highlight academic accomplishments of • Students (dean's list, scholarships, student work in campus forums, etc.) • Faculty (outstanding teaching & service, publications, presentations, grants, collaboration, etc.)	Admin & faculty
19. Academic council and faculty senate should consider excluding first-year grades from official GPA calculations to help encourage intellectual curiosity and risk-taking.	Admin & faculty senate
20. Reinforce and re-structure final exams. Specifically, • Continue to require all instructors to use exam week to administer final exams or have projects or performances due during that week. • Allow 5 days between last exam and deadline for submission of final grades to accommodate grading time for rigorous, grading-intensive final exams.	Admin

• Consider alternative exam schedules to incorporate a reading day in the middle of the exam week.	
21. Promote undergraduate research and other forms of rigorous engagement. Specifically, • Display student academic achievement (e.g., papers, projects, posters, performances) for prospective and incoming students (e.g., during CHOICES, Springboard, open houses). • Regularly highlight student work in departments, colleges, and across the university. • Support faculty mentoring of undergraduate researchers via load credit/release time or other compensation.	Admin & faculty
22. Reinforce commitments to academic integrity. Specifically, • Place reminders of academic integrity throughout campus (e.g., plaques in classrooms, website). • Assess existing Honor Code to see if it needs updating. • Use tools to detect academic misconduct (e.g., SafeAssign plagiarism detection tool) and address violations. • Consider relocating Honor Council from Student Affairs to Academic Affairs.	Admin, faculty, students
23. Discuss and model intellectual commitment by • Letting students know about faculty's academic accomplishments and credibility. • Holding all classes. • Preparing meaningful & challenging lectures, exercises, activities, exams, and projects. • Treating students with respect and fairness as they endeavor to learn.	Admin, faculty
24. Student Government Association should develop strategies that students can implement to enhance their ability to benefit from and appreciate academic rigor.	Students

II. Madison Institute Background

The Center for Faculty Innovation (CFI) initiated the Academic Culture Project during the spring of 2009 to explore the state of intellectual life at JMU. Thirty-four faculty participated in seven focus groups. Participants were presented the following prompts:

1. Describe your view of academic culture at JMU.
2. Given that we are scholars who work at a university, what do you envision when you think of a scholarly academic culture? What would it look like, feel like?
3. Of all the things we've discussed, what do you think would be most important in having this kind of culture at JMU?
4. What can we as faculty do to achieve this?

Themes that emerged from those focus groups were helpful in defining academic culture more broadly and pointing to places for improvement. Individual interviews followed. In August of 2009, Dr. Beth Eck (associate professor of sociology, faculty associate at CFI, and principal investigator on the project), requested the Office of the Provost to generate a list of all instructional faculty at JMU. A stratified random sample of fifty Faculty members was drawn to elicit proportional response from among colleges and ranks within those colleges. Building on the data from both the focus groups and individual interviews, faculty were invited to participate in a faculty interest group (i.e., a "Big FIG") on academic culture during the 2010 May Symposium. The goal of the discussions was to generate suggestions to enhance JMU's academic climate.

Building on focus group, interview, and Big FIG data, the CFI partnered with the provost (Dr. Jerry Benson), the vice-president of student affairs (Dr. Mark Warner), and the speaker of the faculty senate (Dr. Bob Jerome) to conduct a set of three "Conversations about Academic Culture" sessions open to all JMU faculty and staff. These sessions were designed to move the conversation about academic culture and rigor forward by including the faculty voice in a meaningful dialogue about the issues presented by Dr. Eck's earlier work. Over 240 faculty and staff attended one or more of the conversations intended to identify possible actionable goals for this project. Between each *Conversation*, the CFI (as represented by Drs. Hurney and Eck) met with Drs. Benson, Warner, and Jerome to analyze the input, reflect on the process, and create strategies to keep the dialog moving forward.

The themes highlighted below encompass the recurring broad goals and accompanying concerns arising from these iterative discussions, and provide a local empirical foundation upon which actions can be taken.

1. Goal: Express as well as demonstrate that the academic mission and intellectual engagement are the primary reasons for attending the university; reinforce through every aspect of the student experience (from the campus tour through graduation) and across all divisions.

   Accompanying concerns: JMU's reputation as a "fun university;" freshmen orientation; general marketing to parents and prospective students; alcohol culture; institutional identity; focus on "training" versus "learning."

2. Goal: Value academic standards – maintain high standards and respect them.

   Accompanying concerns: Lack of consistency across educational experiences; student body (e.g., checklist mentality, extrinsically motivated - grades, not independent thinkers nor decision makers); grade inflation; overreliance on student evaluations to measure good teaching.

3. Goal: Create space and time for faculty to connect with each another.

   Accompanying concerns: Faculty disconnected from those outside departments/divisions; lack of time to participate in "life of the mind."

4. Goal: Highlight intellectual achievement (faculty and student) to a greater extent than currently.

   Accompanying concerns: Consider reward structure for faculty (what is valued and what is not); faculty scholarship expected but not celebrated or supported across university.

5. Goal: Enhance visibility of graduate culture to engage undergraduates.

   Accompanying concern: Graduate "culture" lacking or diffuse.

6. Goal: Sponsor academic events that engage the university.

At the conclusion of these discussions, Provost Benson, Vice-President Warner, and Faculty Senate Speaker Jerome, requested the CFI help with the design and implementation of the *First Year Experience Task Force* and the *Madison Institute on Academic Rigor* in order to develop concrete plans to address issues noted above.

III. Madison Institute Structure

As a prelude to the Madison Institute, in April of 2011 Provost Benson requested academic units to hold discussions with faculty for the purpose of identifying determinants of academic rigor in their areas, and elements they would consider as crucial in identifying academic rigor in other, perhaps dissimilar, units. These submissions were collected by Dr. Benson at the end May, 2011. These submissions, with unit identifiers removed, are archived at http://www.lib.jmu.edu/documents/academicrigor/ .

In May of 2011, Provost Benson asked Associate Professors Jody Fagan (Libraries and Educational Technologies) and Nancy Poe (Social Work), and Professor Fletcher Linder (IdLS and Anthropology) to work with the CFI to design and conduct the Institute to move forward the work outlined in the previous section. Meanwhile, a call was issued through the Office of Academic Affairs to nominate faculty participants. The nominees were considered in light of representation from a range of colleges, programs, disciplines, and centers on campus. The final roster included 34 participants from all eight colleges and the libraries, representing 27 individual academic units. Participants are noted in the Introduction, above.

Committed to having the Institute advance the discussion rather than rehashing established material, Institute leaders chose to use the unit statements on academic rigor to provide the initial foci of the Institute. Based on an analysis of the statements, Institute leaders identified ten recurrent thematic areas that either informed or confounded notions of rigor. Many of these thematic areas echoed comments offered in the previous "Conversations with Faculty" conducted by the CFI, and thus reinforced the saliency of these issues in relation to academic culture. The ten thematic areas were:

- Purposes and goals of undergraduate education
- Purposes and goals of general education
- External commentary about higher education (including coverage of Arum & Roksa's 2011 book, *Academically Adrift*)
- Standards for course/curriculum progression
- Pedagogy
- Grading and grade inflation
- Student evaluations of teaching
- Course scheduling
- Characteristics of JMU students
- Characteristics of JMU faculty.

As institute organizers analyzed statements of rigor provided by each unit, they discovered frequent claims and operating assumptions that seemed to stand without support. For instance, comments suggesting that faculty should "adhere to a more rigorous grading "scale" implied that grading practices are too lenient, but were stated without evidence to support the assertions.

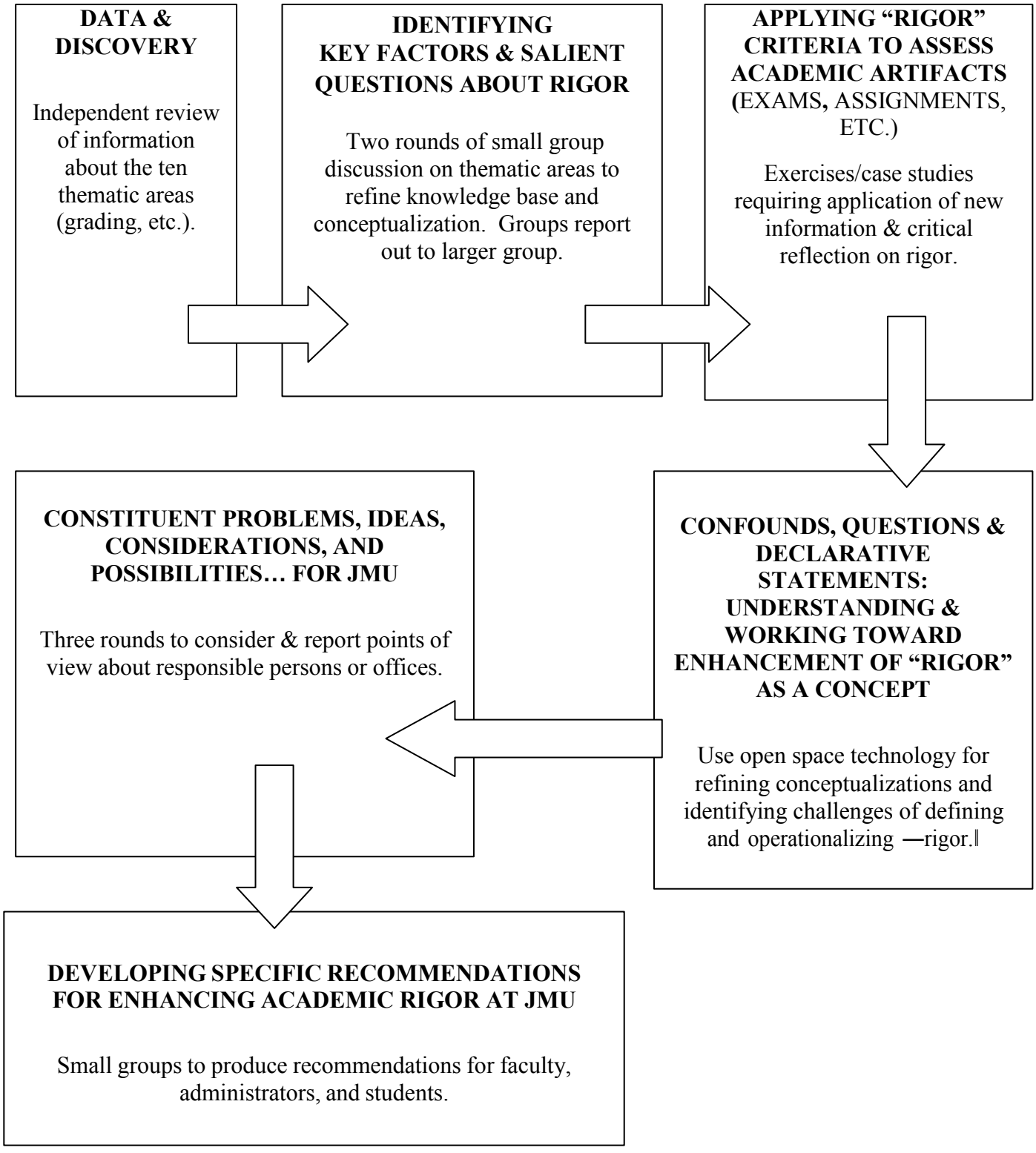
Institute organizers thus decided to use the Madison Institute in part for critical review of the assumptions and positions that many faculty hold, the purpose being to inform a more empirically-based and well-grounded understanding of the concerns of academic rigor at JMU. In so doing, it was the organizers' intent to equip participants with information necessary to move toward the formulation of appropriate remedies for the vexing questions surrounding how to uphold and enhance the educational standards of the university.

In preparation for the Institute, the organizers gathered information on the ten thematic areas noted above. Sources included, for example, survey data, academic books, articles and essays, reports from JMU's Office of Institutional Research, publications from the American Association of College & Universities (AAC&U). Independent exploration of these materials, along with the statements on rigor submitted by individual units, served as the opening activity of the Institute. Much of this material is archived at http://www.lib.jmu.edu/documents/academicrigor/ .

The Institute itself emphasized informed analysis and problem solving, and was structured to provide Institute organizers with specific recommendations for developing this final report addressing what faculty, administrators, and students can do to enhance academic rigor at JMU. The "blueprint" for the Institute and its activities is captured in the chart below.

Madison Institute on Academic Rigor

Map of Foci and Activities



Day one involved immersion in, and application of, relevant data/readings, and asked participants to increase their collective knowledge of the ten identified thematic areas. Day two involved putting the group's collective knowledge to work to offer specific suggestions about how academic rigor can be enhanced at JMU. Participant engagement was exceptionally high over both days, and the Institute organizers express deep thanks for everyone's thoughtful participation.

IV. Supporting narratives for recommendations

Recommendations requiring supporting narratives follow. Recommendations not requiring supporting narratives were simply noted in section I.

A. Rigor: Importance, Definition, and Types

General Summary: Institute participants confirmed the importance of systematically reflecting on academic rigor to enhance the university's academic culture, but grappled with how to define and operationalize the concept.

By the end of the two-day Institute, participants generally agreed that academic rigor simply means *appropriately challenging our students*. Challenge can be presented through many mechanisms, including reading assignments, discussions, course design, criteria-based learning outcomes, performance and artistic expectations, research projects, etc. Appropriate mechanisms will vary with the type and purpose of any particular educational endeavor.

While all universities should provide students with academically rigorous learning opportunities, caution should be exercised when using "rigor" alone to frame the totality of any educational mission. Learning is a complex process that, for example, can hinge as much on modeling as challenge, and the term "rigor" connotes an unyielding rigidity that is likely at odds with much educational research and contemporary pedagogical philosophies.

B. Rigor and Educational Mission

General Summary: Institute participants observed that rigor can be performed/enacted only "in context." It is therefore necessary to think about rigor as existing within the educational mission of the unit and university.

Faculty should consider the following when thinking about how they operationalize and instrumentalize rigor in their classrooms and other educational settings. Is the level and type of challenge appropriate? Are you teaching future professionals in a single field? If so, what kind of rigor is appropriate for that specific training? If not, what is the broader purpose of the instruction and what kind of rigor is appropriate to reach these broader goals? If you do not have a philosophy of education appropriate to the type of teaching you do, and the type of students

you have, then you should develop one. The university's mission to produce educated and enlightened citizens who lead productive and meaningful lives was in 2011 reaffirmed by the university community and thus serves as an important guide (http://www.jmu.edu/presidentsearch/wm_library/JMU_President_-_Position_Description.pdf).

When thinking about how rigor articulates with educational mission, experiences of being a student in undergraduate or graduate school can be poor models for the kinds of *teaching* faculty face as professionals. A collection of readings regarding the many philosophies of post-secondary education can be found at http://www.lib.jmu.edu/documents/academicrigor/ .

Administrators should support faculty as they create and align appropriate forms of rigor with the educational mission of the unit and university, and should further accept that not all faculty efforts to improve rigor will prove successful.

Students are also agents of academic rigor. The Institute recognized a wide degree of variation among students in terms of motivation, willingness to take on challenging course material, and critical thinking skills. Formal and informal student leaders can and do model academically rigorous behaviors. Students may exhibit rigor selectively based in individual interest in the class and in relation to the tone set by faculty.

C. Rigor and General Education

General Summary: Institute participants discovered faculty disagreed about the purposes and position of the General Education program within the overall academic program of the university, and expressed differing perspectives about appropriate standards of rigor for General Education courses.

Vigorous discussion ensued between participants who believed that the purpose of General Education is or should be to serve as a foundation/preparatory academic experience on which faculty teaching in the majors built disciplinary specialization with upper-level students. Others refuted this characterization, stating that the purpose of General Education is to expose students to worldviews and ways of critical thinking that develop a cultivated intellectual curiosity that is the distinguishing characteristic of an educated person.

It is understandable and perhaps inevitable that ideas and approaches for assessing and enhancing rigor in General Education diverge sharply depending on one's view of what the courses should accomplish, including students who were characterized as making statements consistent with the opinion that "GenEds shouldn't be so hard." Importantly, participants observed that if faculty hold conflicting views on the purpose and focus of courses in General Education (which constitute 41 credit hours—nearly one-third—of the coursework requirements for a bachelor's degree) then it should come as no surprise that some students, too, fail to understand and value a rigorous general education program.

Because the General Education program mission is indeed clearly formulated (http://www.jmu.edu/gened/), it is recommended that the purpose of the core program continue

to be clearly articulated to faculty and students, and that faculty reinforce this mission when they teach General Education courses.

It was further suggested by institute participants that extracurricular activities connect activities to the educational mission of the university and General Education.

D. Rigor and Time Expectations of Students

General Summary: Institute participants wrestled with rigor in terms of how much time students commit to out-of-class study.

The commonly referenced rule-of-thumb of requiring students to spend two hours out of class on studies for every hour in class was presented and debated. No consensus emerged other than "more time is better."

A review of the research at the national level supports some cause for concern, though the data should be viewed cautiously when thinking about how national averages relate to JMU in particular. The most commonly cited large-scale study is the American Time Use Survey (ATUS) conducted by the US Bureau of Labor Statistics. The ATUS suggests college students currently spend 25.2 hours per week on school. This estimate is likely low for JMU students for several reasons. First, figures are generated from single phone interviews which ask respondents to recall their time allocation for an average week. While the ATUS website claims the recall method aligns with data collected via logbook (http://www.bls.gov/tus/atusfaqs.htm#8), drug use and nutrition research demonstrates recall methods can significantly undercount measured behaviors (Rockenbauer et al. 2001; Rumpler et al. 2008). Second, the ATUS estimates fail to capture weekend time allotment, days when college students often dedicate themselves to time-intensive assignments (http://www.bls.gov/spotlight/2010/college/home.htm). And third, the national-level data reported by the ATUS includes all types of students from all types of colleges. Because JMU is classified by *Barron's* selectivity index as ―very competitive,‖ JMU's ranking in the fourth highest of six ordinal categories itself suggests national academic time use averages will likely be low compared to actual JMU figures.

It is also important to note that no published research or careful argument has validated the two-hours-out-of-class-for-every-hour-in-class benchmark.

Despite problems with arbitrary benchmarks and uncertain estimates of student time allocation, administrators and faculty should stress to students that investment of quality time is an essential learning strategy. To increase the likelihood that students will recognize the benefit of dedicating ample time to their studies, faculty should create learning exercises that promote meaningful engagement, especially those that require independent and out-of-class involvement and participation, and avoid those assignments that encourage shortcuts and a "check box" approach to learning.

Students needing assistance with time management should be directed to JMU's offices of Academic Advising, Career and Academic Planning, and Student Learning Centers.

E. Rigor and Time Expectations of Faculty

General Summary: Institute participants voiced concern that increased rigor could unreasonably increase faculty workloads, with particular concern for increased time for grading assignments of greater number or complexity. While this could be the case, units and faculty should take steps to ensure this does not happen.

Some forms of rigor require a great deal of faculty time, while others do not. Among the tasks requiring the most amount of time per student are grading long writing assignments, supervising honors theses and other creative projects, musical instruction, and guiding research. Among the least time-intensive activities include leading challenging classroom discussions, assigning challenging readings, requiring student attendance and active participation, designing exams that lead to higher levels of learning, and designing activities that make use of peer-assisted learning. Faculty should develop practical ways to ensure their classes are rigorous while also protecting time for other duties. The CFI is well-positioned to help faculty achieve this difficult balance.

Participants identified a different, but related, factor affecting faculty time. Under President Rose's leadership, JMU has attempted to embody the best of R1 along with liberal arts colleges in being "a new kind of university." What this can mean for faculty is added pressure to: 1) teach in a manner expected at liberal arts colleges, with individual attention to students and labor-intensive assignments and supervision; 2) manage a research and publication agenda similar to R1s, though generally not at the same pace; and 3) selflessly serve the students, department, college, and university like at liberal arts colleges.

Administrators should be aware of, and allow for, the time demands on faculty that come with teaching at a large comprehensive university, and JMU in particular. As *Forbe's* report on America's Best Colleges notes, JMU's freshman classes of ~4,000 place it about 60th in the nation, adjacent to such schools as the University of Kansas and UNC-Chapel Hill. With just one exception (Miami Dade College), all schools with freshman classes larger than JMU are either R1s or doctoral/comprehensives with large graduate school populations (e.g., East Carolina, Cal State-Fullerton, Cal State-Long Beach).

JMU's particular challenge is that we attempt to teach a large number of undergraduates without the benefit of large numbers of graduate teaching assistants. JMU has, since 1996-7, accomplished its teaching mission supported by only ~160 graduate teaching assistants annually. These figures do not come close to schools with comparable freshman classes, like Kansas, which employs graduate students to teach 19% of its undergraduate courses (http://www2.ku.edu/~oirp/Common/CDS10_11/KUCDS_2010_2011.pdf).

In order to support faculty who contribute academically challenging large classes, we recommend an evaluation of technical support, undergraduate teaching/grading assistants, incentive pay, course reduction, and other measures.

F. Rigor and Student Evaluations of Teaching

General Summary: Institute participants suggested rigor is compromised when students evaluate faculty teaching, due to the nature of how evaluations are used.

The logic follows thus: faculty members know student evaluations are used by PACs and administrators as a measure of teaching effectiveness; faculty assume or know from their experience that students can provide unflattering evaluations of rigorous courses; faculty thus reduce rigor in their courses to reduce the likelihood of low student evaluations and the negative impact these evaluations can have on annual reviews and tenure and promotion decisions.

While it is unclear how widespread the cultural logic noted above is shared among JMU faculty, discussions during the Institute suggest the logic generates significant concern for many faculty, all of whom, we assume, wish to appropriately challenge their students. Institute participants noted these concerns are more pronounced for those faculty who teach in units that use student evaluations as the single or primary measure of teaching effectiveness, and for part-time faculty and other faculty without tenure.

These concerns should be minimized in order to help ensure our students receive a quality education and to align our reward structures with our educational priorities in accordance with research on student evaluations of teaching. To this end,

1. Units should carefully examine and revise, if necessary, the use of quantitative student evaluations of teaching effectiveness (SETEs) in faculty performance review processes.

> The research on SETEs is vast, contradictory, and difficult to interpret. A sample of this research, along with select reviews, can be found at http://www.lib.jmu.edu/documents/academicrigor/ . Early in the SETE debates, Dowell and Neal (1982) note how difficult it is to design robust studies in this area, and particularly so when considering all the possible biases and moderators associated with different universities, departments, course levels, course types, and student populations. Because of these complexities, these scholars caution against using any research in this area to create a one-size-fits-all policy (1982: 60-1).
>
> Nonetheless, the UNC-Wilmington Faculty Senate recently reviewed the SETE literature in order to make a university-wide policy regarding the use of SETEs in faculty review processes. Their findings note that "…quantified student evaluations of teaching effectiveness… are invalid measures of teaching effectives (very low validity) given the high validity standards that should be expected for purposes of [tenure and promotion] and personnel decisions" (UNCW 2010:2). They noted further (ibid.) how single-item global measures of teaching effectiveness are particularly problematic as they relate to objective assessments of student learning.
>
> Given the UNCW position is founded on a thorough review of the research led by a published scholar in the field (Professor Craig Galbraith), JMU units would be wise to not rely on SETEs as a single or primary indicator of teaching effectiveness.

Units would also be wise to not completely abandon SETEs. As the UNCW (2010:13) report notes, several influential scholars (e.g., Marsh 1987; McKeachie 1996; Wachtel 1998; Penny 2003; Centra 2003) argue strongly for the continued use of SETEs, even in personnel decisions. Units need to consider what, specifically, they can learn from their SETEs, and design their SETEs to take into account student experiences of their own education. Institute participants suggested the following items to consider when designing appropriate SETEs, with qualitative feedback being particularly useful at helping catch problems regarding the instructor or classroom dynamics.

Is the course appropriately challenging?

Is the instructor fair?

Are assignments graded promptly?

Provide feedback on the instructor's interaction with students.

Some JMU units may find some studies helpful as they consider the proper role and form of student evaluations in performance reviews. In a recent meta-analysis, Clayson (2009) reviewed studies focused on the following areas: engineering/science (24 studies); modern foreign language (16); psychology (10); mathematics (8); economics (8); business/accounting (6); chemistry (4); biology (4); physics (3). Relevant units are encouraged to explore these studies and to determine if they are helpful in setting departmental policy regarding the use of student evaluations.

Finally, faculty and administrators should fairly and generously evaluate the teaching of faculty colleagues. The research on pedagogy is vast and supports the view that there are multiple paths to reach our students and we don't all have to teach the same way in order to be effective. And further, while outcomes are always important to consider, faculty should be able to take reasonable risks in pedagogy without the fear of overly critical reviews.

2. Units should carefully review how they use SETEs, and revise if necessary, for the purposes of improving teaching.

Summative evaluations of teaching, the type of evaluations done for performance reviews, do not often provide the kind of feedback necessary to improve teaching. In addition to asking students on SETEs what they think "worked" in the course, units and faculty should consult use the many teaching-improvement resources offered through JMU's CFI.

3. Units should be careful to not simply replace SETEs with untrained peer evaluators.

Peer evaluation is only as good as the evaluators. Moreover, peer evaluation hasn't been studied well enough to see if it is any more valid that student evaluations at predicting student learning. Again, consult the CFI to determine the best approach for your unit.

4. Faculty and administrators should communicate to students that professors will teach as if students will appreciate appropriate challenges, and that SETEs provide one the many data points used to measure teaching effectiveness.

> The College of Arts and Letters has drafted such a statement that will appear on all the college's SETEs, and this language is included in the literature on SETEs, archived at http://www.lib.jmu.edu/documents/academicrigor/ .

5. Faculty should approach SETE feedback openly.

> Student feedback may genuinely indicate areas for improvement. Faculty should examine how to distinguish potentially valuable feedback from the kind to be ignored, being careful to not let the "that's just who I am" reaction keep professors from responding to their students' comments and therefore possibly passing on an opportunity to improve as teachers.

G. Rigor and Grades

General Summary: There is significant disagreement among faculty regarding grades and their relationship to rigor.

The question of grades and their relationship to rigor is not new. Most recently, in April of 2003, JMU's faculty senate academic policies committee, chaired by Dr. Beth Eck, submitted a report on alleged grade inflation at JMU (http://www.jmu.edu/facultysenate/wm_library/Documents/Grade%20Data/Academic%20Polices%20Committee%20Report.htm), and concluded much of what follows below. Some of the committee's recommendations have been enacted, though not the addition of a "weighted" or "relative" GPA notation on the transcript.

While the claimed relationship between rigor and grades is commonly expressed, its conventional nature hides multiple assumptions and intersecting lines of reasoning. What follows is an attempt to clarify two interrelated, though distinct, dimensions of this sentiment, the purpose being to help faculty and administrators consider how grading should take place in their units, and to help us be aware that no single policy is likely to satisfy all units, faculty, and educational contexts.

1. Assumption: "*C*" Should Mean Average

> This position assumes the purpose of grading is to discriminate, to evaluate each student relative to others. While widespread, discrimination is only one of many legitimate philosophies of grading. A contrasting approach is criteria-based grading. Criteria-based approaches assign grades based on the degree to which students reach well-defined standards. Units responding to professional accrediting bodies (e.g., nursing, social work, education) often teach and grade using criteria-based approaches, as professional organizations routinely prescribe the knowledge, skills, and attitudes necessary for licensure or practice in the field. Because curricula in these units are designed to prepare students to reach externally defined target competencies, grade distributions are often

skewed upwards because "target" can imply the highest levels of achievement on an absolute scale. Other common uses of grades relates to student motivation. See Barnes et al. (1988) for an empirical study of how teaching and grading philosophies often vary by discipline. This study and others pertaining to teaching and grading philosophies can be found at http://www.lib.jmu.edu/documents/academicrigor/ .

The position that C should mean average further suggests that grade distributions should be normed. Though the vague notion of "average" is often used in reference to grading, it is important to consider whether the term as used refers to the mean, median, or modal measures. Further, one must consider the referent group. Are averages determined in reference to students in a single course section? Or are averages determined in reference to some larger population, such as students in all sections, all students who have taken the course, or some larger abstraction, such as "JMU undergraduates?" If students in the single course section are the referent, faculty who subscribe to the "C means average" philosophy determine in advance that some students will be deemed below or above average regardless of student performance. While this assumption may prove less (though not completely) problematic with large classes, small classes pose challenges to strict adherence to this philosophy. What if all ten seminar students performed admirably? What if none of all four practica students performed poorly?

And last, JMU policies provide conflicting messages regarding the notion that a C is average. The *2010 Undergraduate Catalog* states (p. 29) that a C is "average," even as a C (i.e., 2.0) is the minimum GPA required to remain in JMU. Students graduating with a GPA of 2.0 are certainly not average; they are minimally qualified and graduate at the bottom of their class. At the graduate level, the *2010-11 Graduate Catalog* notes a C is "poor." Students can earn no more than one C before receiving academic warning, three Cs warrant dismissal, and graduate students must maintain a minimum GPA of 3.0 to remain enrolled.

The faculty senate and academic council should review these policies in light of the arguments above to determine if the language describing grades in the graduate and undergraduate catalogs should be changed. Possible changes include

A: high competence at the undergraduate level
B: intermediate competence at the undergraduate level
C: minimally acceptable competence at the undergraduate level
D: some competence, but less than minimally acceptable at the undergraduate level
F: no competence at the undergraduate level

2. Assumption: Grade Inflation Indicates Reduced Rigor

This sentiment is an extension of the C-should-mean-average position discussed above, and, as such, shares many of the same ideas about the meaning of grades. Conceptually, grade inflation refers to increasing average grades without concomitant increases in student learning. Rising average grades over time would thus index a decline in rigor.

Grade Inflation Data

Data and analysis provided by Stuart Rojstaczer, a retired professor of geophysics at Duke University, have been at the center of external discussions regarding grade inflation. Two of Rojstaczer's most influential outlets include a 2010 publication (with Christopher Healy) in Columbia University's *Teachers College Record* (http://gradeinflation.com/tcr2010grading.pdf), and Rojstaczer's website, gradeinflation.com.[1] While his work provides a good first look at possible trends at the national level, the data and analyses have numerous serious shortcomings.

Research design is perhaps the most obvious area calling for scrutiny. The U.S. Department of Education currently lists approximately 6,900 postsecondary institutions in the United States (http://www.ope.ed.gov/accreditation/). Rojstaczer and Healy (2010:1) report data for approximately 160 colleges, the selection of which was neither randomized nor purposeful. As such, the 2% convenience sample poses serious limitations regarding generalizability to the larger U.S population of colleges and universities. Nonetheless, the study reports data from many well-known public and private colleges, including JMU, and thus may provide a relatively good first estimate of national trends.

GPA data are also less than robust. First, it is unclear if grade figures are comparable across, and even within, institutions, as illustrated by the following examples from Rojstaczer's study (see the university tabs at the bottom of gradeinflation.com). The reported grades for JMU refer to median GPAs for all undergraduates, spring term. Middlbury's grades are "average" GPAs (which we might assume is the mean) for the academic year, excluding winter term. Figures from Emory University correspond to average GPAs of graduates. Missouri State data refers to mean GPAs of graduating seniors, with data for years 2003 through 2006 being estimated using grade information from all undergraduates. Harvard's grades were calculated thus,

> 1914, 1915, 1963 and 1967 estimated from freshman grades. 1966 and 1975 estimated from percent A's awarded or percent A's and B's combined using formulae derived from grades from other selective admissions liberal arts colleges and universities (Harvard tab on http://gradeinflation.com/tcr2010grading.pdf).

Second, many GPAs are calculated using unknown methods, further complicating aggregation. Kenyon College GPAs, for example, were derived unspecified methods across all years, from 1956 to 2006. And third, older data appears much less reliable than more recent data due to reporting and archiving technologies. Even though Rojstaczer provides trend estimates using data from as far back as the 1920s, older data is scarce, and serious reservations seem warranted for figures generated before computerization of student records.

[1] http://gradeinflation.com/. Last major update noted as 3/10/09; last minor data update noted as 7/16/10. Accessed June-August, 2011.

Above reservations aside, however, Rojstaczer's data suggest undergraduate GPAs have risen nationally in both private and public schools since the early 1990s (gradeinflation.com, opening figure).

Within the context of national trends, undergraduate GPAs at JMU have risen more modestly over this same period (*JMU's 2010 Statistical Summary*, Table 2-22), as noted below.

Grade Inflation Data					
	Average GPA 1991-2	Average GPA 2006-7	GPA Increase From 1991-2007	% Change in GPA	Annual Change in GPA
Private schools	3.09	3.30	0.21	6.8%	0.014
Public schools	2.85	3.01	0.16	5.6%	0.011
JMU	2.89	3.03	0.14	4.8%	0.009

While average grades appear to have risen nationally since 1991-2, the rate of increase varies significantly across institutions, with community colleges typically showing no evidence of increase (Rojstaczer and Healy 2010; GradeInflation.com).

At JMU, the increase in GPA over fifteen years represents a 0.009 per year change, and in terms of the grade equivalents listed in the *JMU Undergraduate Catalog*, the average GPA at JMU is currently a B, just as it was in 1992, and just as it was in 1984, the year gradeinflation.com indicates as the earliest date for reliable JMU data.

The current number of students with GPAs that place them on probation or suspension is 1355, or about 7.7% of the undergraduate population (see the table below). One could argue that JMU provides significant academic challenge to this 7.7%. The fact that this percentage has dropped from 11.4% in 2000-1, however, is more difficult to interpret. Is it a product of better students, JMU's improved ability to retain students, reduced rigor, or something else?

JMU Undergraduates with GPAs < 2.0			
Acad. Year	Cum. GPA < 2.0	Undergrads	% GPAs < 2.0
2000-1	1624	14,280	11.4%
2002-3	1425	14,828	9.6%
2005-6	1305	15,618	8.4%
2007-8	1277	16,414	7.8%
2009-10	1311	17,281	7.6%
2010-11	1355	17,657	7.7%

Interpretations of Grade Inflation Data

Even if Rojstaczer's grade inflation estimates above are valid, they are commonly misinterpreted, even by Rojstaczer himself. Perhaps the most common misinterpretation assumes that a "C" should be the average grade at a university, and that anything above a "C" indicates grade inflation. The fact is, as stated earlier in this report, a 2.0, or a "C," is actually the minimum average GPA required to stay in most universities, and students with GPAs < 2.0 are constantly removed from student populations.

The normal grade distribution one should thus expect across students at most universities is not centered between 0.0 to 4.0, but rather between 2.0 to 4.0., with a small proportion of low performing students with cumulative GPAs of < 2.0 resting on the cusp of being dismissed from the population used to calculate average GPAs.

Another common mistake is to assume that increases in average GPA are due to less rigorous grading. Rojsatczer and Healy (2010:2) themselves jump to this conclusion even though this hypothesis is very difficult to test and many alternative explanations seem more plausible than a national effort among university faculty to be more lax in grading. Regardless of causal relationships at the national level, several structural explanations merit serious consideration at JMU.

> Hypothesis 1- Enrollment growth in areas that employ criteria-based teaching and grading (e.g., nursing, education) have increased average GPAs. Because grade distributions are often higher in units using criteria-based teaching and grading, proportionally increased enrollments in these areas will affect university averages.

Hypothesis 2- The overall increase in enrollment has shifted GPAs upward. 2010 data from JMU's *Statistical Summary* (Figure 2-9), indicate grades are higher in 300 and 400-level courses than in 100 and 200-level courses. Upper-level classes have an average of 49.2% *A*s, while lower level classes have an average of 37.9% *A*s. This differential makes sense because of numerous pedagogical reasons, including, for example, more student interest in the subject at the upper level, and closer instructional supervision owing to smaller class size at the upper level. Assuming students take approximately 41-50 hours of lower-level courses (GenEd plus 3 courses), they take at least 70 hours at the upper level. With increasing enrollments, the number of upper-level courses taken overall at the university increases at a greater rate (~7:5) than the number of lower-level courses taken. Because *A*s are more prevalent in upper-level courses, this larger disproportional increase in upper-level coursework across the university would thus raise the university's average GPA.

Hypothesis 3- Changing student populations have been responsible for the increase in average GPA. Spanning the past thirteen years (1997-2010), the number of applications for admission to JMU has increased from 14,005 to 22,221 (JMU's *Statistical Summary* for each year). Expanded pools may correlate with increased competitiveness, with admission being granted to students with greater scholastic aptitude. The fact that the average high school GPA of incoming freshmen has risen from 3.46 in 1996 to 3.84 in 2010 suggests this possibility (JMU's *Common Data Set*). In addition, the percentage of students receiving financial aid has dropped dramatically over the last fifteen years. In 1994-5, 59% of students received financial aid; by 2009-10, this figure had dropped to 31% (JMU *Statistical Summary* for each year). Multiple studies have shown a positive correlation between high SES and student achievement (see Giammatteo, 1967 for a classic early study), thus the composition of JMU's student body shifting to those coming from more affluent backgrounds is likely to have an affect on average GPA.

Hypothesis 4- Course grading scales have changed over time. As no university-wide policy governs grading scales used in courses, we might expect these scales to change over time. Even a small average change in grading scales could account for a 0.009 difference in GPA per year. Though plausible, this idea would be difficult to test because of access to grading scale data. Associated with this possibility is the increased use of grading rubrics over time, the use of which increases students' ability to reach their instructors' expectations.

Hypothesis 5- University policies regarding GPA calculation have changed, particularly the plus-minus system, directly affecting average GPAs. Before 1998-9, JMU undergraduate catalogs indicate only whole-letter grades (i.e., grades without plusses or minuses) in the calculation of the overall GPA. This change seems to have mattered. The average GPA from 1992-3 to 1997-8 remained steady at 2.89. Beginning in 1998-9, GPAs began to creep up.

Hypothesis 6- Changes in other policies directly affect average GPAs. Dates by which a student can drop a course and withdrawal policies clearly have an effect on GPAs. In addition, policies regarding academic probation and suspension have changed since early 1990s (see the *1994-5 Undergraduate Catalog*). These changes have resulted in making it more difficult for low-performing students to remain enrolled at JMU and thus affect average GPAs.

Hypothesis 7- The addition and/or enhancement of learning centers and other student support services at JMU has helped students improve performance.

What to Do About Grade Inflation

Discussions within units should be informed by empirically-grounded positions, including: the lack of any clear relationship between course grades and rigor; the reality that JMU has not experienced the same level of average GPA increase found at many other schools (see data noted above); that a 2.0 is the minimum GPA required for continued enrollment; and that comparisons across units will likely not render meaningful or useful information, as different areas and disciplines within the university rightly employ a variety of valid teaching and grading strategies. See the "C" should mean average‖ section above for more detailed coverage of these and other relevant issues.

Units employing criteria-based learning may also consider using Bs instead of As to indicate that students have met externally defined competencies. Higher grades can be awarded for achievement beyond externally defined standards.

Regardless of what we do in our academic units, grade inflation will likely remain fodder for public scrutiny and critique of universities for some time. To address these critiques, we recommend that JMU publish a statement regarding the range of GPAs required for undergraduates (2.0-4.0) and graduates (3.0-4.0), an outline of common grading philosophies, and language indicating JMU's commitment to challenging our students.

If faculty and administrators are concerned that a median GPA of *B* suggests to internal as well as external audiences that JMU is not rigorous enough, then the faculty senate and academic council can attempt to lower the average GPA by doing away with late drop dates and withdrawal options. By doing this, however, we believe the university will probably decrease student academic exploration and risk taking. In addition, JMU could add a weighted GPA figure on transcripts to follow up on the 2003 Faculty Senate Academic Policies Committee Report on Grade Inflation (http://www.jmu.edu/facultysenate/wm_library/Documents/Grade%20Data/Academic%20Polices%20Committee%20Report.htm).

H. Rigor and Adjunct and Non-Tenure Track Faculty

General Summary: Institute participants queried whether JMU's reliance on adjunct and non-tenure-track (ANTT) instructors reduces rigor due to these faculty: 1) "giving easy As" in order

to get favorable student evaluations and thus secure continued employment; and/or , 2) avoiding pedagogical approaches that require heavy investment of time due to high work: low compensation ratios for adjunct and non-tenure track faculty.

Once again, grades were presumed by some participants to be an indicator of rigor (see earlier sections on grade distributions and grade inflation). If ―easy-A adjuncts‖ were the case, then JMU's rising median GPA from 1991-2007 should mirror the rise in use of adjunctive and part-time faculty. This appears not to be the case, as the percentage of ANTT instructors has remained a steady 26-28% from 1995-2010 (see data below). These data, however, do not rule out the possibility that a higher percentage of students are taught by ANTT instructors since 1995, and therefore the steady number of ANTT instructors have had an increasing effect on overall GPAs. To help ensure *all* faculty are informed of and responsible to JMU's commitment to rigor, units should discuss expectations with ANTT faculty, and review teaching approaches, materials, and performance on an ongoing basis. Further, ANTT should be encouraged to take advantage of the many teaching and learning resources available through CFI and other units.

ANTT Faculty as Percentage of FT Faculty and Faculty:Undergraduate Ratio

Year	FT Faculty	ANTT Faculty	% AANT out of Total # of Faculty	Undergraduates	Total Faculty to Undergraduate Student Ratio
2010-11	906	360	28%	Not available	Not available
2009-10	906	344	28%	17,281	1:14
2008-9	897	312	26%	16,648	1:14
2007-8	854	313	27%	16,108	1:14
2006-7	831	300	26%	15,653	1:14
2005-6	795	293	27%	15,287	1:14
2004-5	749	276	27%	14,676	1:14
2003-4	721	275	28%	14,683	1:15
2002-3	704	274	28%	14,402	1:15
2001-2	685	253	27%	14,069	1:15
2000-1	675	259	28%	13,824	1:15

1999-00	640	220	26%	13,668	1:16
1998-9	617	240	28%	13,225	1:15
1997-8	581	209	26%	12,551	1:16
1996-7	559	207	27%	11,643	1:15
1995-6	528	188	27%	10,503	1:15

V. References not Electronically Archived at
http://www.lib.jmu.edu/documents/academicrigor/

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