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January 28, 2013

Memo To: Jo Ann Gora, President
✓Terry King, Provost

From: Malcolm Cairns, Professor and Chair of Task Force on Academic Rigor

Subject: Final Report of the Task Force on Academic Rigor

Please find enclosed the final report from the Task Force on Academic Rigor. The Task Force feels it has addressed the challenge and charge presented to us, and that this report includes recommendations which, if implemented, would reinforce and augment the institution's efforts to advance its record of concern for the quality of its academic program.

January 25, 2013

ACADEMIC RIGOR TASK FORCE REPORT

Ball State University Task Force on Academic Rigor

Task Force Members:

Brent Blackwell, English
Malcolm Cairns, Landscape Architecture (Task Force Chair)
Dominic Caristi, Telecommunications
Catherine Chen, Information Systems and Operations Management
Richard Fluegeman, Geological Sciences
Sheron Fraser-Burgess, Educational Studies
Bruce Geelhoed, History
Rachel Hurd, student
Anthony Mahon, School of Physical Education, Sport, and Exercise Science
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Context and Charge Provided to the Task Force:

Context:

In recent years there has been a growing public concern about the quality and rigor of higher education in the United States. We have seen the publication of analysis and commentary such as Academically Adrift, by Arum and Roksa, for example. The National Survey of Student Engagement (NSSE) indicates that students across the nation and at Ball State University spend far less time studying than their counterparts of thirty years ago yet grade point averages are higher. The “traditional model” of in-class education is being replaced by high-impact learning experiences such as immersive learning, field study, and study abroad. Online and other technology-mediated education has moved to “outcomes-based” accreditation that, at least in theory, requires students to be benchmarked against quantifiable performance standards.

In this context is the education that Ball State provides rigorous and does the university maintain academic quality? How can we improve, and how can we adapt traditional measures to an evolving educational environment?

Charge:

We ask the Task Force on Academic Rigor to do three things:

- 1. Assemble the appropriate data for Ball State University.*
- 2. Assess Ball State's performance in maintaining and improving academic rigor.*
- 3. Provide recommendations to the faculty and administration of the university. The recommendations should help us ensure academic rigor and learning effectiveness.*

Preface to the Study and Recommendations:

The Academic Rigor Task Force, consisting of faculty members from each college and 2 students, has predicated its work on the assumption that in a healthy academic environment faculty are rigorous in their striving to impart knowledge, and students are rigorous in their efforts to learn.

To place the concept of academic rigor within our institutional context, the task force has decided to use a framework for the study which is built around a metaphor of *“good health” and that similar to individuals, there are healthy and unhealthy institutions.*

It is clear to the task force that academic rigor is one of the hallmarks of a healthy academic institution.

To continue the Health metaphor, one can describe what it means to be in **good academic health**, as there are **vital signs** which reflect conditions of good and bad health, and there are **indicators** of healthy academic rigor and the lack thereof. There are also **tests** to perform, and there should be **regiments, diets, or prescriptions** to get it, if found lacking, as well as **regimes** to maintain and increase already healthy levels of performance. There are respected measures to **determine and monitor vital signs.**

Rigor is a measure or level of activity, a “striving” towards strategic or important outcomes. Institutions are rigorous in their efforts to award degrees which signify the accomplishment of institutional and educational goals in the various disciplines. *In this respect actively working toward the accomplishment of an institutional strategic plan (if the bar is set high enough)* would be a measure of rigor, as is the parallel achievement of Departmental Program goals (and the coursework contained). Both Institutional and Program goals can be further guided by rigorous standards of accreditation or certification agencies. Ball State is accredited by the NCA, and within the University, many programs have their own certification or accreditation credentials through national disciplinary accreditation boards.

Beyond these official signatures of institutional and education accomplishment, the somewhat superficial look or appearance of excellent educational health, lies a persistent challenge to define “academic rigor,” and to determine if it is a condition which can be measured, acquired, or augmented.

Universities and University Students: Signs of Failing Health?

Academically Adrift: Limited Learning on College Campuses

The publicity associated with **Academically Adrift** highlights the authors’ assertions that most American Universities are not rigorous, and contentions that today’s university students are not engaged in learning at a level which would result in a clean academic bill of health. The authors further assert that the professorate has been unable or ineffective at treating this symptom of poor academic health. The authors use the results of the Collegiate Learning Assessment (CLA) as the basis for these contentions, and also use the results of the National Survey of Student

Engagement (NSSE) to support their assertion that our universities are failing to educate in critical areas.

It should be noted that the authors of Academically Adrift go on to question the findings of the NSSE, or at least try to isolate critical components which might be the most influential in affecting student engagement.

Of most notable concern is the contention that American Universities are not advancing student skills in the realm of critical thinking and problem solving. The book's authors are particularly emphatic that nationwide, as a result of 4 years of academic study, student skills in these areas are not advancing.

Another View of the Current Status of Academic Rigor:

“With the growing emphasis on job-related skills, some professors argue, the cultivation of important intellectual traits is getting short shrift.

More professors are seeing intellectual virtues as something to be taught directly, not just hoped for as a side effect of higher education.

Many education experts who seek to define the value of a college degree seize on metrics that can be quantified in the short term. Some look at levels of student engagement, while others calculate gains on standardized tests of critical-thinking skills. Still others have started analyzing the salaries that recent graduates earn.

A different sort of approach, quietly gaining steam, takes a longer—and less measurable—view. In this approach, the real value of a college education is how it affects the way students think and act, ideally for years after they graduate. Shape your students' underlying attitudes and intellectual characteristics, the theory goes, and a lifetime of deep and lasting learning will follow.

These characteristics go by different names, like intellectual virtues or habits of mind. And they originate in several disciplines, including education, philosophy, and psychology. They all boil down to an emphasis on underlying traits: curiosity, open-mindedness, and intellectual courage, thoroughness, and humility.

An emphasis on content is in keeping with a long-standing view of the purpose of education: to transmit knowledge, often a canonical set of ideas, facts, and works. Such knowledge, advocates of this view say, represents the intellectual heritage that has been amassed by generations of academics and must be passed on for culture to endure.

Many people propose an alternative approach: teaching skills like critical thinking and quantitative analysis that are thought to be transferable among disciplines. According to this view, parcels of content can be extracted from survey courses, expanded, and shaped around a central question to spark student interest. A sociology student may never come across, say, Max Weber's theory of legitimacy, but she will become well versed in a skill like analyzing data. Skeptics of such an approach worry, though, that it leaves too many students ignorant of key

facts and ideas. And terms like critical thinking have been invoked so widely, the skeptics say, that they have become meaningless.

But students will actually get more out of teaching that emphasizes content and skills if they have been trained to be curious and intellectually thorough. They are also likely to be more enthusiastic learners. Following on the example above, students who are taught in a way that emphasizes the development of intellectual virtues might learn Weber's theory, its strengths and weaknesses, the scholarly responses to it, and be expected to respond with their own take.

One of the really nice things about teaching for intellectual virtues is that, because they aim for deep, explanatory understanding and not just memorization of isolated facts, you're automatically teaching for rigor."

Berrett, Dan. "Habits of Mind: Lessons for the Long Term."
Chronicle of Higher Education, Oct. 8, 2012

This dichotomy of consideration leads to differing approaches to solving the problem lack of student engagement. A quantitative approach calls for specifics of time on task, pages read, pages written, and fewer A's. The qualitative approach addresses higher order learning objectives, faculty-student interaction and strategies for Deep Learning.

Metrics and Panacea:

Attempts have been made to address the perceived lack of academic rigor with simple quantitative "fixes": study so many hours per week, read 40 pages per week, write 20 pages over the course of a semester. It is important, however, to recognize the differences between the symptoms and the causes of an ailment. Medical doctors would not serve their patients well by treating a rash with a lotion without determining whether the rash was caused by an infection, or allergy, or friction. A lotion might calm the itch but would not necessarily address the problem. Grades, for example ought to be viewed as symptoms. Excessively high or low grades might be an indicator of any one of a dozen deeper issues, but to treat the symptom without addressing causes is foolish. Unfortunately, there is no shortage of academic practitioners who offer immediate, easy solutions to the symptom without addressing the cause.

If a class has an overall low grade scale, is that an indication that the course has been rigorous? It could be, but it might also be an indication that the professor has not well informed the students of the course requirements, or that material had not been adequately covered, or that exams included material not covered in the class. Conversely, if a course has a higher than average grade, it could be an indication of a lenient grading scale, but it might also indicate that students were excited about the content and engaged with the material. Isn't this the reason that we expect students to have a higher GPA in their majors than in other courses?

Some measures of academic rigor may be based on metrics of quantifiable evidence, and yet the true measure of academic rigor may ultimately depend on more subjective, intellectual, and experiential aspects of the condition. Physical therapy and medicines may aid in a hospital patient's recovery in a tangible, measurable way; however, studies have shown that a view of nature from the patient's room has a therapeutic effect as well. Taking 2 pills a day (reading 40

pages a week) or going to physical therapy regularly (writing 20 pages over the course of a stay) may have a positive effect, but immersing oneself in the academic love of learning could be equally influential. The task force recognizes that Academic Rigor has both quantitative and qualitative determinants, each requiring appropriate metrics. No elixir, miracle drug, or salve was discovered to have remarkable results.

Academic Rigor: Defining the Condition:

Upon convening the Academic Rigor Task Force, a first objective consisted of developing an operational definition of the concept. The Task Force's discussion of academic rigor was informed by an original challenge to carefully define the condition or to accept the succinct definition of others. Although it might be thought that academic rigor is a "condition" which can be explicitly defined, an examination of the concept yielded broad, complex, and in some cases conflicting definitions.

The Task Force asserts that this diversity of definitions was in and of itself worthwhile, and therefore, by invention, adoption and collaboration a multiplicity of definitions of academic rigor are provided for consideration as presented by members of the Academic Rigor Task Force.

1. Following up on the use of the medical metaphor, we think Academic Rigor is best compared to a "syndrome" in medicine. A syndrome is not so much defined as it is determined. A group of symptoms taken together are characteristic of a specific disorder. So it is with academic rigor: it is best understood as a collection of "symptoms." The symptoms one thinks of related to academic rigor are:
 - **Time on task.** In order for something to be rigorous it must require "enough" time. Of course this creates the new problem of determining what enough is. The Carnegie standards of two hours outside of class for every hour in class are *not* currently followed by students at even the most elite universities.
 - There must be some degree of **academic challenge**. Academic rigor cannot exist if something is easily accomplished. If time on task were the only criterion, then students' part-time jobs might be more academically rigorous than their course load.
2. "Rigor is to academic work what careful practice and **nuanced performance** is to musical performance, and what **intense and committed** play is to athletic performance. When we talk about a rigorous course, it's a course that examines details, insists on diligent and scrupulous study and performance, and doesn't settle for a mild or informal contact with the key ideas."
We might add that a rigorous course deals both with **emphasis and execution**. (<http://castingournines.wordpress.com/2008/12/10/>).
3. "An environment that is **intellectually challenging and demanding**. Students perceive a norm of excellence and responsibility, which is expressed through high, but realistic,

evaluation standards. The class is seen as fast-paced, and there are expectations that students will invest considerable energy and time in completing assignments.”(Winston et al., 1994)

“Academic quality is manifested in such course-level academic processes as the type of questions faculty ask students during class, the nature of term paper assignments or other written exercises. Academic rigor is the level of understanding of course content to be demonstrated by students while engaging in these course-level processes.” (Braxton, 1993)

“Rigor—**focused and critical work**—arises from a sense of the importance of subject matter and the opportunity presented for its mastery and refinement through study. In a rigorous academic environment, the purposes, principles and methodologies of scholarship as a means of establishing the connectedness of things in understood.” (Nicholson, 1996).

From B. Graham, C., & Essex, C. (2001). Defining and ensuring academic rigor in online and on-campus courses: Instructor perspectives. ED 470 163 (Definition, with preference to Winston)

4. It is a quality attributed to higher education that engenders **deep disciplinary knowledge** as well as the capacity to **think critically** about this content in order to intentionally and normatively promote and support a democratic society.
5. **Difficulty and/or challenge(s)** presented in an academic setting¹; application of a set of standards for teacher and student to guide the learning process; development of a set of skills including content mastery, application of basic knowledge, and critical thinking/problem solving².

¹ <http://www.uh.edu/college-readiness/ccr-glossary/index.php>

² http://www.mdc.edu/ctd/nisod/Academic_Rigor.pdf

Qualities associated with academic rigor: being challenged, pushed to extend the knowledge continuum, repetition to mastery, labor intensive, seeking knowledge and resources rather than being provided, problem solving (application and critical thinking elements), **upholding high expectations and accountability, integrity, and flexibility.**

6. I do not associate rigor with difficulty; challenging, yes, but not necessarily difficult. The degree of difficulty can be a result of aptitude and aptitude can be a product of experience. To improve aptitude and provide experiences, I would define rigor as an education based on exposure to and experiences with applying tools learned in courses. For students to be able to learn at a level of rigor the students must have a level of maturity, that, if not developed prior to entering the university, must be developed within their first 2 years. Maybe there is a relationship between **good citizenship and the level of rigor a university exudes?**
7. Those educational qualities which strive for the highest possible achievement in the transference of knowledge, and the advancement of society and culture. The condition is marked by: an **engaged pursuit of a challenging and recognized educational goal,**

activities of both teachers and students which reflect a strong impetus for accomplishment, a robust enthusiasm for learning, a desire to learn and to impart learning at increasing levels of complexity, high expectations for educational achievement, and overt signs which exemplify the dynamic condition.

Although there is variation among these different expressions and opinions of academic rigor, there were several common threads that clearly emerged from this exercise. These include the following: (1) the ability to think critically and to problem solve, (2) being challenged in the classroom and pushed to extend the intellectual boundary, (3) mastering content and striving for a high level of achievement with increasing levels of complexity, (4) time and labor intensive, and (5) the production of quality and credible work.

These divergent qualities and characteristics can be summarized the following statement of academic rigor, which was adopted by the Task Force:

Academic rigor:

Those educational qualities which strive for the highest possible achievement in the acquisition and transference of skills, knowledge, and understandings associated with an academic discipline and the benefit to society and culture. Furthermore the condition of an academically rigorous environment is marked by activities of both teachers and students which reflect a strong impetus for accomplishment, a robust enthusiasm for learning, a desire to learn and impart learning at increasing levels of complexity, and high expectation for educational achievement.

Academic Rigor as a Sign of Good Educational Health:

There are several metrics that serve as baseline indicators of the overall academic health of an institution. These include the metrics listed below and are quantifiable.

- Incoming GPA, class rank, and SAT/ACT scores
- Number of Honors College participants
- Retention rate
- GPA at graduation
- Time to complete a degree
- Student awards and distinctions
- Students pursuing advanced degrees
- Experiential and immersive learning activities

On-going indicators and activities that might provide useful information in regard to academic rigor include following.

- Periodic assessment of the UCC21 curriculum
- Pass rates on writing competency examination
- Systematic and regularly performed assessments of departmental curriculums
- On-going departmental evaluations external reviewers
- Accredited program reviews
- Pass rates on national certification and licensure examinations
- Immersive learning opportunities and participation
- Feedback from the Freshman Connection program
- NSSE benchmarking
- BSU MAP Assessment Trends

Vital Signs:

The Task Force notes that a persistent and widespread discussion of the topic is in itself a healthy indicator of concern, and that it might be healthy for an institutional forum to be established to continue the dialogue, refine individual and institutional definitions and develop effective “treatments, remedies, prescriptions, regimen, and habits” which maintain and/or increase healthy signs of Academic health and rigor.

Just as caring about one’s health is important in providing intrinsic motivation to do what is necessary to become healthy, an intrinsic interest in learning is necessary to promote academic rigor. Without motivation, admonitions to “get healthy” will fall on deaf ears.

The Task Force is unified in the assertion that, regardless of diversity of definition, the concept of Academic Rigor is a hallmark of an academically engaged, healthy educational institution.

“It is a quality attributed to higher education that engenders deep disciplinary knowledge as well as the capacity to think critically about this content in order to intentionally and normatively promote and support a democratic society.”

To further develop the Academic Health metaphor, the Task Force created the following table that outlines significant examples of the vital signs of academic rigor along with a means to monitor and prescriptive strategies to correct, improve, or augment a vital sign.

Monitoring the Chart:

Vital Sign	Means to Monitor	Prescriptive Strategies
<ul style="list-style-type: none"> Program goals 	<ul style="list-style-type: none"> Department chair/program head Achievement of learning outcomes 	<ul style="list-style-type: none"> Mandate articulation of goals in program literature and catalog
<ul style="list-style-type: none"> Time on task (2:1 model) 	<ul style="list-style-type: none"> Standard yearly survey to random students to establish a baseline and monitor level meeting the 2:1 ratio 	<ul style="list-style-type: none"> Identify and implement activities that increase the likelihood of meeting this ratio
<ul style="list-style-type: none"> Writing across the curriculum 	<ul style="list-style-type: none"> Writing competency success Number of courses with "W" designations Program reports 	<ul style="list-style-type: none"> Infuse writing elements into courses throughout the curriculum UEC/course approval process – some evidence
<ul style="list-style-type: none"> Program accreditation 	<ul style="list-style-type: none"> Program self-monitor/report 	<ul style="list-style-type: none"> On-going accreditation where necessary
<ul style="list-style-type: none"> Licensure, certification, and national exams 	<ul style="list-style-type: none"> Success rate across programs where required 	<ul style="list-style-type: none"> Alignment of coursework and program goals with standards
<ul style="list-style-type: none"> Experiential/immersive learning 	<ul style="list-style-type: none"> Number of experiences Percentage of students Internship site supervisor feedback 	<ul style="list-style-type: none"> Maintain/develop opportunities Incentivize faculty in the P & T and merit process
<ul style="list-style-type: none"> Study abroad/international experiences 	<ul style="list-style-type: none"> Number of experiences Percentage of students partaking Develop quality control checklist 	<ul style="list-style-type: none"> Continue to expand opportunities Develop incentive programs for faculty and students to pursue
<ul style="list-style-type: none"> Diverse and comprehensive core curriculum 	<ul style="list-style-type: none"> Core curriculum assessments to verify the EIJKA model is occurring 	<ul style="list-style-type: none"> Modify as dictated by assessment
<ul style="list-style-type: none"> Capstone class 	<ul style="list-style-type: none"> Number of programs/department with capstone class in place 	<ul style="list-style-type: none"> Encourage use of a capstone class in all programs
<ul style="list-style-type: none"> Student participation in state, regional and national conferences 	<ul style="list-style-type: none"> Inventory occurrences 	<ul style="list-style-type: none"> Increase financial resources to support this experience for faculty and students Incentivize in the P & T

		and merit process
<ul style="list-style-type: none"> • Leadership opportunities 	<ul style="list-style-type: none"> • Inventory activities and track in a central repository 	<ul style="list-style-type: none"> • Develop academic program boards, academic clubs, and other like activities and recognize students for involvement
Other Vital Signs Related to Rigor that are More Difficult to Quantify and Monitor		
<ul style="list-style-type: none"> • Reading comprehension 		These activities are primarily at the faculty and student level and dependent on willingness to accept and engage; departments should be encouraged to discuss these matters and formulate action plans that can serve as recommendations that will promote these experiences.
<ul style="list-style-type: none"> • Critical thinking/problem solving 		
<ul style="list-style-type: none"> • Faculty-student interaction outside of class 		

Factors Affecting Academic Rigor:

A discussion of academic rigor should not omit consideration that there are mitigating and competing influences that likely impact the level of student engagement and the degree in which academic rigor will facilitate and maximize student learning. Some of these factors include the following:

- Student preparedness for higher education
- Value placed on “being educated” versus “being trained”
- Competing influences on students such as employment and peer/social influences
- An excessive focus on the outcome (a grade) rather than the process (learning)
- Non-academic campus activities that could distract students
- The ability to graduate in a timely manner.

In addition to these considerations, which focus on the student, faculty must be willing to engage their students in a rigorous manner by utilizing best practices and administrators must be supportive and facilitate efforts to nurture a rigorous academic community. These factors are not meant to be an excuse for the lack of rigor in a course or program of study, but are meant to recognize that academic rigor is an institutional-wide concept and includes the entire membership (students, faculty and administrators) of the academic community.

A Ball State Health Assessment:

If Academic Rigor is a hallmark of an academically engaged, healthy educational institution, how do we know if Ball State is in a state of good or poor health? Are Students rigorously engaged in their education? Does the faculty strive to rigorously impart knowledge? Is Ball State academically adrift?

While BSU students were not among those who took the CLA test which formed the basis for the contentions in Academically Adrift, there is other evidence available which places Ball State student engagement in the context of both peer and national institutional trends. Working with data provided by our office of institutional engagement the task force reviewed 3 iterations of BSU's bi-annual participation in the National Survey of Student Engagement (NSSE), and note that...yes, we're **normal** (and not that engaged), although our view of this data reveals that in several categories, BSU students are slightly more engaged than those at most of our peer institutions, and that institutionally, there has been some measure of improvement in student engagement over time. (See Appendix A) The task force considered why we might be doing slightly better than peer institutions: Improved academic quality of applicants? Positive results from our Core Curriculum or Freshmen Connections? Emphasis on Immersive Learning? Writing Proficiency results?

BSU conducts its own surveys which address factors which might reflect levels of academic rigor. MAP-Works and Withdrawing Student surveys were reviewed (See Appendix B). These revealed similar indicators to the NSSE results in the areas of student motivation, class attendance, preparedness for class, study habits, and currency with reading assignments. This self-reported study did indicate a slight trend by second year students for devoting more time for studying and out of class activity. A review of a 2010 Alumni Survey (Appendix C) revealed no additional indicators affecting this assessment of academic rigor, with the exception of the levels of disappointment with Math preparation.

Are there critical Ball State indicators or Vital Signs of a healthy academic institution?

Current Means, Methods and Assessments of Vital Signs

Writing Proficiency Exam and Course.

For WPP392 (Writing Proficiency Exam):

- Pass/Fail rates for each exam: the global, section, college, and department levels
- Pass/Fail rates for each semester: the global level
- Pass/Fail rates for each year: the global level.

For WPP393 (Writing Proficiency Course):

- Pass/Fail rates: at the global and section levels
- Pass/Fail rates for each semester=2 part-of-term sets of courses
- Pass/Fail rates for each year: the global level

“Since the Exam and the Course are assessment tools, what we do is use the grading criteria developed by the Writing Proficiency Advisory Committee to look at student writing—which is written under as similar circumstances and graded in as similar a way as possible. Only when there is this kind of coherence can we talk about the reliability and validity of the assessment.

What is important to remember is that—unlike “regular” courses—the whole intent of WPP392 and WPP393 is to assess student writing—the Writing Proficiency Program is not trying to say that it produces better writers. It is saying, ‘This is the data we have from our assessments.’” (email from Anna Priebe Director BSU Writing Proficiency Program)

Immersive Learning. Based on the seemingly valid contention that experiential learning reinforces and develops problem solving and critical thinking skills, this program is currently being assessed for percentages of students participating, not on the impact of the experience, or the effects of multiple experiences over time. The Institution has been collecting data for the numbers of students who have had immersive learning experiences at Ball State. Longitudinal studies for whether this type of educational experience increases student engagement and academic rigor are needed to fully assess the effects of immersive learning experiences.

Grade Inflation. While some evidence of this exists across the institution, task force review of evidence within key Core Curriculum classes does not indicate recent critical signs of rampant inflation. Additionally, no evidence which specifically ties grade inflation to levels of student engagement was discovered.

For example, based on data provided by the Ball State University Office of Institutional Effectiveness, the following grades for University Core courses were reported:

COMM 210

Year	Students receiving A's	Students Receiving D's
2006-2007	44%	1%
2010-2011	27%	2%

ENG 104:

Year	Students receiving A's	Students Receiving D's
2006-2007	32%	2%
2010-2011	30%	2%

HIST 150

Year	Students receiving A's	Students Receiving D's
2006-2007	22%	8%
2010-2011	22%	8%

MATHS 125

Year	Students receiving A's	Students Receiving D's
2006-2007	17%	12%
2010-2011	17%	12%

The only indicator contrary is the overall UCC course total

Year	Students receiving A's	Students Receiving D's
2006-2007	28%	12%
2010-2011	31%	6%

Core Curriculum. Courses in the previous BSU Core Curriculum were periodically assessed for their accomplishment of course objectives. No evidence was found of longitudinal studies which indicate the impact of a common core curriculum. The University's new core will be longitudinally assessed for measures of transfer of knowledge, understanding, and application, and the new core requires a Tier 3 Capstone experience of all students.

Plans are underway to assess the new Core Curriculum:

"This fall we will be piloting this process. In reviewing the core curriculum framework which includes in goals and objectives about 12 different items such as written composition and critical thinking which need to be assessed. I am going to provide an overview of the process and then explain what will occur with the pilot.

The total assessment process would probably be a 4 year cycle with 3 elements selected to assess each year. Blackboard Outcomes which is a new Blackboard product that the university has purchased will be used to collect the student samples needed for the assessments. Outcomes will select approximately 100 samples of student work which reflects the element (usually documents from student work during their junior or senior years). A team of faculty will use a rubric developed to evaluation a specific element such as critical thinking to review each document and determine how well each student met the criteria. This faculty team will be trained in this process and will complete the work during the summer. Each student sample will be evaluated by two faculty. If there are disagreements between the two evaluations, a third faculty member will evaluate the work. We anticipate that there will be a stipend provided. The information gained from the assessment and evaluation process will then be used to make decisions about possible changes in the core curriculum and changes needed within each major.

The pilot will be for the written composition area. Right now we are asking each department to identify the course in every major in which provides a mature writing sample. Those will then be placed into Outcomes to make the random selection of student samples possible. A group of faculty will be trained to use a rubric designed for this purpose and will participate in the process outlined above. If all goes well with the pilot, we hope to initiate the complete process with evaluations to occur during Summer 2014."

(email from Associate Provost Marilyn Buck)

Critical Thinking

Critical Thinking and Problem Solving skills appear to be the most widely accepted aspects of Academic Rigor, and ones for which there is widespread agreement regarding low levels of accomplishment. National assessment studies reinforce the perceive impressions of an important shortfall of these skills. Ball State NSSE findings and those of the institution's MAP studies do

not diverge from national trends. Beyond the stated criteria for immersive learning experiences, no institutional strategies for systematically increasing critical thinking and problem solving abilities were discovered. Reviews of other academic institution's assessment and academic rigor studies suggest that this "perception of importance with no specific prescription to accomplish" academic health factor places Ball State no better or worse than peer institutions.

"It's safe to say we all want our students to become better critical thinkers. Most of us have an intuitive sense for critical thinking - we know it when we see it, like Michaelson did as he listened to his students taking their first team tests. But beyond that general intuitive sense, what constitutes critical thinking? What elements do we seek to cultivate if we want to develop our students' critical thinking abilities?

The literature on critical thinking goes all the way back to Socrates, though much contemporary scholarship on critical thinking in education builds on a study by Glaser (1941) in which he identified three aspects of critical thinking: a thoughtful attitude or disposition, a range of reasoning skills, and the ability to apply those skills. Later scholars, such as Paul (1995) and Halpern (2003) added a fourth element: a habit of reflecting upon one's own thinking to continually improve it. Halpern is a former president of the American Psychology Association, and her book Thought and Knowledge brings a great deal of empirical evidence to bear in validation of this four-part framework. As a result, the critical thinking framework we have found the most useful consists of four major elements:

- A critical thinking attitude
- The ability to use specific critical thinking skills
- The ability to apply those skills in new contexts
- Habits of reflection upon one's own thinking."

Michael Sweet and Larry K. Michaelson, "Critical Thinking and Engagement: Creating Cognitive Apprenticeships With Team-Based Learning." Team-Based Learning in the Social Sciences and Humanities: Group Work That Works to Generate Critical Thinking and Engagement, edited by Michael Sweet and Larry K. Michaelson. Stylus Publishing. Sterling, Virginia.

The Patient is Normal

The Task Force concludes that BSU students are as unengaged as the average of all other peer institutions surveyed in the NSSE. Additionally, no indicators were discovered which elevated Ball State graduates' critical thinking and problem solving abilities beyond the normal (and undistinguished) range as well.

An initial review of these assertions may first suggest an institutional ineffectiveness at addressing student engagement, as evidenced by static survey results over this longitudinal study.

However, Ball State comparisons with peer institutions may very well have been worse, as institutional support for a University Core Curriculum, Writing Proficiency Program, Immersive Learning Initiatives, and other academic programs may have had very positive effects, which to date have not been assessed for their qualitative impact on student engagement.

So in this case, while it could be worse, normal in the case of student engagement is the equivalent to the normal American being overweight or sleep-deprived. Normal is not a condition of no further concern. It would be advantageous in this regard for Ball State to be abnormally active in raising the level of its academic health. Recommendations follow.

Recommendations for Increasing the level of Ball State's Academic Health

Ball State University should:

1. Develop longitudinal studies which assess the impacts that the Core Curriculum, Writing Proficiency, Immersive Learning, Study Abroad, Honors, and other programs have had on Ball State student engagement, and underscore the importance these programs may play in increasing critical thinking and problem solving skills and abilities of undergraduate students.
2. Define the topic of Academic Rigor broadly, avoid panacea, and encourage constant disciplinary and cross-disciplinary discussion of the subject, its definitions, vital signs, assessment measures and treatment strategies.
3. Ratify and continually commit to aspects of the University Strategic Plan which address important components of the diverse definition and measure of Academic rigor.
4. Require the establishment of Departmental Program Goals which address the discipline-related ends to which faculty and students should strive to be academically healthy or rigorous. All courses should have learning objectives which address the appropriate levels of academic rigor of the discipline.

5. Strive to Achieve:

An Appropriate Student **Time on Task** Balance for Academic Health

Increasing levels of **Academic Exploration and Expression** (Reading, Writing, Creating, Performing)

Acceptable levels of indicators for the **Vital Signs of the Educated Citizen**

Widespread Educational emphasis for **Critical Thinking Skills**

Recognition of the **Value of the Immersive Educational Experience**

6. Emphasize:

Good teaching and High Quality Interactions with Faculty

Articulated Academic Challenge and High Expectations

Active/Collaborative Learning

Student-Faculty Interaction

Enriching and Deep Educational Experiences

Supportive Campus Environments

7. Create:

A highly visible administrative support structure to encourage faculty discussion and development, nurture programs which increase student engagement, and undertake longitudinal studies for qualitative academic assessment of student engagement and academic rigor which are actively used to affect improvement.

Conclusion

The Task Force believes it is important for Ball State students to be actively engaged and well-read in their disciplines, with a broad and diverse definition of what "actively engaged and well-read" might mean. There should be an emphasis on these characteristics in every department and in every course, as well as on strategies for increasing students' abilities to express knowledge and understanding, and on pedagogical strategies for increasing critical thinking skills and abilities across the various disciplines. However, no prescriptions for pages of reading, or writing, or for curves of course grades, or mandated minutes of time on task are offered, as it is doubtful that these would affect the desired change in healthy student engagement. Academic rigor is primarily a qualitative condition, difficult to define and assess.

While "nothing substitutes for time on task," it is problematic to determine what level of engagement to achieve and the amount of time it might entail to accomplish the target level of engagement. However, looking for ways to rebalance student time priorities for education/social/recreation/employment is certainly critical to increasing academic rigor.

The Task Force believes that the establishment of regular forums of academic discourse, modeled on examples such as the Pew Roundtables would be effective in establishing or

maintaining the institutional priority of Academic Rigor. Repressive measures of accounting for time on task, pages read or written, or A's received should not be substitutes for intellectual discussion and action. Discussion, Action, Continual Assessment and Adjustment are the academic health equivalent of the "watching your diet and daily exercise, getting regular check-ups, and following the doctor's advice" method of health management for individuals.

The importance of critical thinking and problem solving to every university degree seems to be universally embraced, and one measure of Academic Rigor for which there is broad consensus. Asking each Department and each faculty in every course to establish strategies for increasing the advancement of these important aspects of an educated citizenry would seem a modest yet influential initial request. The establishment and publication of a Ball State encyclopedia of educational strategies that encourage, increase and maintain academic rigor may distinguish the institution in an educational environment which often uses the terminology but fails to define, assess, exemplify and reward significant, tangible methodologies and results.



Appendix A

Ball State NSSE Data

Making Meaning of Ball State's 2012 NSSE Results Suggestions from the Office of Institutional Effectiveness

The National Survey of Student Engagement (NSSE) is a complex data collection and benchmarking exercise that yields an abundance of information. The purpose of this document is to provide suggestions for contextualizing the results. It is important to realize that the NSSE is designed to be a measure of the extent to which students engage in "good practice" activities that are shown in empirical research to be predictive of good grades, retention and graduation; the survey is not a measure of student learning and success per se, but rather a broad barometer that may be consulted periodically in order to suggest areas for institutional attention.

Four suggested methods of contextualizing the results are comparisons with peer institutions, trends over time, internal group differences, and comparisons with the most positive possible results within the context of our mission. In all cases, interpretation of differences is made difficult by the fact that many differences are statistically significant due to the large sample size. A method of overcoming this limitation is the use of effect sizes, which are size-neutral and focus of practical rather than statistical significance. Commonly accepted standards for interpreting effect sizes for differences between means are as follows: .00 to .19 indicates a very small effect, .20 to .50 indicates a small effect, .50 to .79 indicates a medium effect, and greater than .80 indicates a large effect (Cohen, J., 1988, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed.). Large effect sizes are seldom found in educational and social science research; it is common to focus on medium effect sizes to filter out findings worthy of greatest attention. Very few of the mean differences in the Ball State 2012 NSSE results rose to the level of medium effect sizes. Among the four-point scale items, mean differences would need to be greater than about 0.5 to rise to the level of medium effects.

Comparisons with Peer Institutions

We focus on data from seniors since their results reflect more years of experience in college and we focus on differences with the "Ball State Peer" comparison group since those public, doctoral, residential universities have student populations and curricula most similar to Ball State. The five NSSE benchmark scales provide a convenient way for efficient viewing of results.

The benchmark scale for which our mean score is furthest below that of peers is Level of Academic Challenge (effect size -.13, small). Items within this scale with means significantly below those of peers include:

- Coursework emphasizes analysis (-.15, very small)
- Coursework emphasizes synthesis (-.13, very small)
- Working harder than you thought you would to meet an instructor's standards or expectations (-.13, very small)
- Campus environment emphasizes spending significant amounts of time studying and on academic work (-.25, small)

The benchmark scale for which our mean score is furthest above that of peers is Enriching Educational Experiences (effect size .26, small). Items within this scale with means significantly above those of peers include:

- Community service/volunteer work (.28, small)
- Independent study/self-designed major (.31, small)
- Practicum, internship, field experience, co-op, or clinical (.29, small)
- Participating in a learning community (.15, very small)

The principle implications of the comparisons with peers are that Ball State should increase academic rigor and that it has distinguished itself from peer universities in terms of outreach or immersive experiences.

Trends Over Time

As shown on page 21, mean NSSE benchmark scores for seniors have generally trended upwards over the five administrations at Ball State, although all means are lower for 2012 than for 2009. All mean decreases between 2009 and 2012 are classified as very small. Also, the general upward trend has occurred despite generally stable levels of pre-college preparation as measured by SAT scores. While responses to most specific NSSE items rose and fell over the years, the following showed continuous trends:

- The percentage of seniors who reported that they often or very often had serious conversations with students of a different race or ethnicity rose from 40% in 2004 to 41% in 2007 to 44% in 2008 to 46% in 2009 to 49% in 2012.
- The percentage of seniors who reported that they came to class without completing assignments rose from 23% in 2004 and 2007 to 24% in 2008 to 26% in 2009 to 27% in 2012.

Internal Group Differences

The Office of Institutional Effectiveness is currently developing an analysis of NSSE item differences in terms of gender and race/ethnicity.

Analysis of Results in Light of Institutional Mission and Priorities

Given Ball State's emphasis on Immersive Learning, it is instructive to explore differences in mean Enriching Education Experiences benchmark scores between Ball State seniors and seniors at peer institutions. That difference (42.3 for Ball State and 37.7 at peer universities) has an effect size of .26, which is classified as small. The table below provides results for each item in the Enriching Education Experiences benchmark scale.

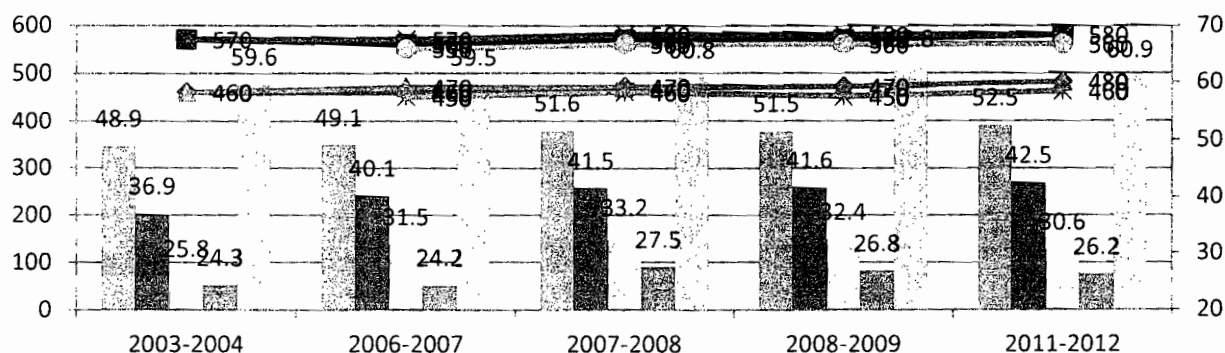
Item (percent "very often" or "often")	Ball State Seniors	Seniors at Peer Institutions	Effect Size
Hours spent participating in co-curricular activities (more than 10 hours/week)	19%	12%	.27
Community service/Volunteer work	66%	52%	.28
Independent study/self-designed major	25%	14%	.31
Using electronic medium to discuss/complete an assignment	61%	64%	-.04
Serious conversation with students of different race/ethnicity	49%	54%	-.12
Serious conversations with students of different religious beliefs, political opinions, or personal values	58%	54%	.06
Practicum, internship, field experience, co-op experience, or clinical	58%	44%	.29
Foreign language coursework and study abroad	35%	33%	.05
Culminating senior experience	33%	33%	.00
Participating in a learning community	34%	27%	.15

Ball State seniors showed a greater degree of engagement, on average, than did seniors at peer institutions for seven of the ten items in this benchmark scale, although the effect sizes for these differences are classified as small or very small.

A more stringent comparison includes exploring differences in mean Enriching Education Experiences benchmark scores between Ball State seniors and seniors at institutions performing at the top 10% of all NSSE institutions in 2012. The mean score at Ball State is 42.3, while it is 56.0 at the top 10% institutions. This effect size (-.79) is actually the greatest of all of the mean benchmark comparisons between Ball State and top 10% institutions and approaches the threshold (.80) to be considered high.

Clearly Ball State has considerable room for additional growth on this benchmark as compared to top 10% institutions. Unfortunately item comparisons with top 10% institutions on the items within the Enriching Education Experiences benchmark scale are not available.

NSSE Benchmark Scores and First-Year Student SAT Scores



- NSSE Level of Academic Challenge-Senior
- NSSE Active and Collaborative Learning-Senior
- NSSE Student-Faculty Interaction-Senior
- NSSE Enriching Educational Experiences-Senior
- NSSE Supportive Campus Environment-Senior
- NSSE Level of Academic Challenge-First Year
- NSSE Active and Collaborative Learning-First Year
- NSSE Student-Faculty Interaction-First Year
- NSSE Enriching Educational Experiences-First Year

Appendix B

Academic Rigor; MAP-WORKS and Withdrawing Student Surveys and Overview Ball State Office of Institutional Effectiveness

Office of Institutional Effectiveness
Amy Petts
March 2012

ACADEMIC RIGOR *MAP-WORKS* & Withdrawing Student Surveys

Introduction

The Office of Institutional Effectiveness is analyzing a variety of data regarding trends in academic rigor at Ball State University. As part of this data gathering process, we analyzed some of the relevant survey results in the Withdrawing Student and *MAP-Works* surveys. Particularly, we analyzed *MAP-Works* questions that students answered in the fall of their second year. We also analyzed the results of the Withdrawing Student Survey, an instrument students take when officially withdrawing through the Ombudsperson. For each of these surveys, we analyze five years of data.

When reviewing this data it is important to keep response rates from various years in mind. Below is a table that provides the response rates for each of these surveys and the respective year. The *MAP-Works* survey is administered only in the fall. The Withdrawing Student Survey is administered at any point in an academic year that a student formally withdraws.

MAP-Works Second-year Students

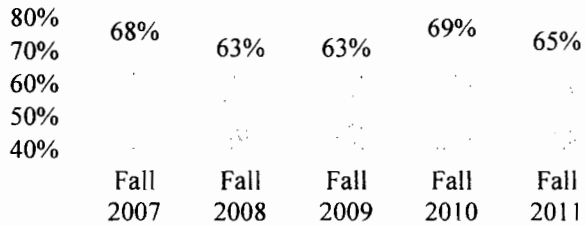
	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Response Rates	30%	34%	44%	35%	41%

Withdrawing Student Survey

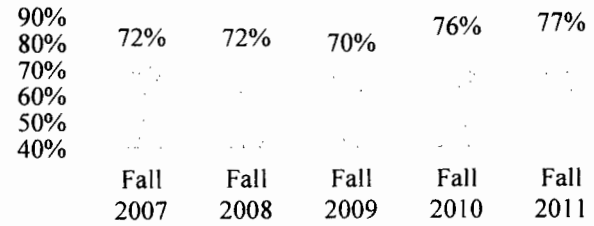
	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Response Rates	82%	86%	89%	84%	87%

Data

Percentage of Second-Year Students Who Are Extremely (6, 7)* Motivated to Complete Their Academic Work



Percentage of Second-Year Students Who Are Extremely (6, 7)* Keeping Current with Their Academic Work



*Respondents rated their behaviors on a scale of 1(not at all) to 7 (extremely)

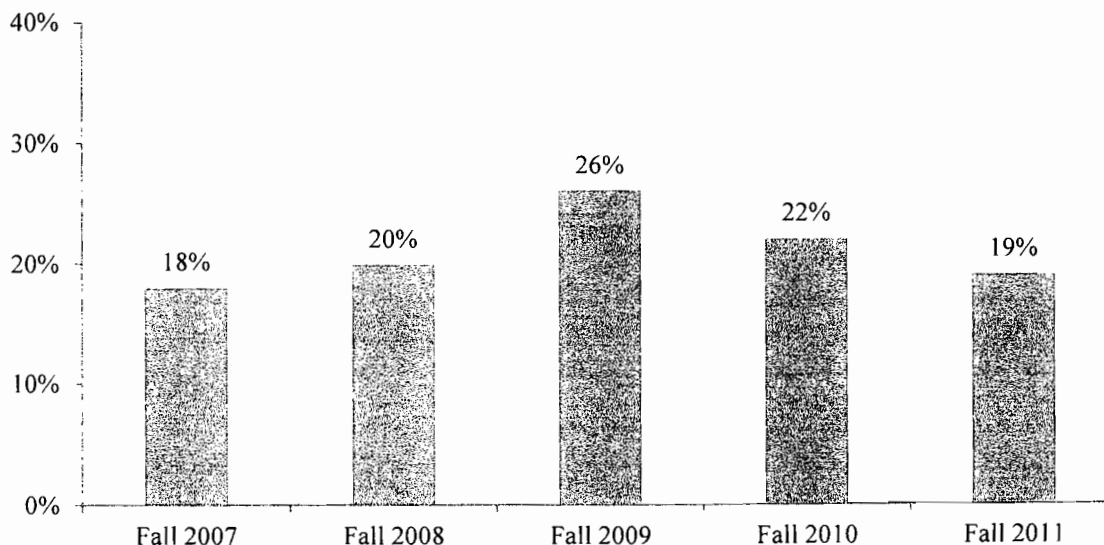
**Academic Behaviors
Second-Year Students**

To what degree are you the kind of person who...:	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
<i>Percentages indicating extremely (6, 7)*</i>					
attends class?	95.0	92.1	91.2	92.6	94.3
takes good notes in class?	77.1	73.8	73.3	79.7	77.4
turns in required homework assignments?	93.9	91.5	89.5	91.7	93.8
records your assignments and tests in a calendar?	70.2	64.8	63.6	70.2	59.8
participates in class?	43.4	40.0	43.3	56.4	56.7
communicates with instructors outside of class?**	18.6	20.3	18.8	40.6	42.4
works on large projects well in advance of the due date?	42.2	39.2	38.9	53.6	49.2
studies in a place where you can avoid distractions?	55.8	44.4	45.2	56.4	47.5
studies on a regular schedule?	33.3	31.3	29.5	42.3	30.4
spends sufficient time studying to earn good grades?	62.6	52.8	57.0	63.3	61.8
reads assigned readings within a day before class?	38.4	35.5	35.4	46.6	37.6

*Respondents rated their behaviors on a scale of 1(not at all) to 7 (extremely)

** In 2010, this survey item changed. It had read communicating with instructors outside of office hours and was changed to outside of class which may explain the variance between 2009 and 2010.

**Percentage of Second-Year Students
Struggling in More Than One Course**



**Academic Behaviors in Courses where Struggling
Second-Year Students**

Regarding the course you are having the most difficult with, to what degree...:	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
	<i>Percentages indicating extremely (6, 7)*</i>				
are you struggling?	10.2	14.1	13.4	11.1	10.8
have you talked with your instructor regarding your difficulties?	8.1	8.8	8.2	8.6	7.1
have you turned in assigned homework?	83.4	80.2	78.0	79.8	83.0
have you done the required readings?	54.7	53.3	49.9	50.3	51.1

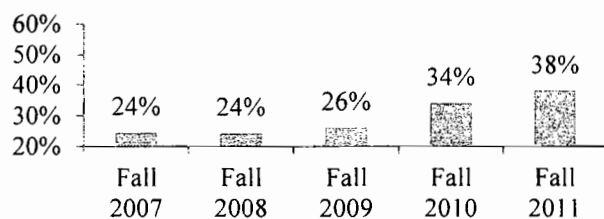
*Respondents rated their behaviors on a scale of 1(not at all) to 7 (extremely); of respondents who reported struggling in at least one course

**Time Management Behaviors
Second-Year Students**

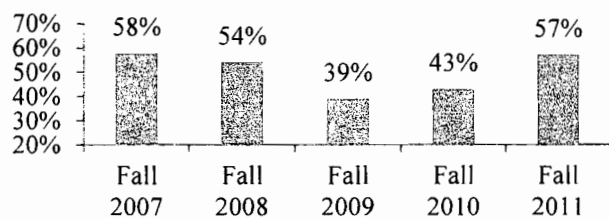
To what degree are you the kind of person who...:	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
	<i>Percentages indicating extremely (6, 7)*</i>				
is self-disciplined?	67.3	53.1	57.2	62.7	64.6
follows through with what you say you're going to do?	79.0	63.6	66.0	73.1	74.5
is dependable?	86.8	80.6	81.4	85.0	87.7
shows up on time?	80.7	76.3	76.6	79.3	80.7
plans out your time?	44.5	42.9	48.5	62.5	59.5
makes "to-do" lists?	62.0	55.7	54.8	62.4	57.6

*Respondents rated their behaviors on a scale of 1(not at all) to 7 (extremely)

**Percent of Second Year Students
Spending
11 or More Hours Per Week
Studying/Doing Out-of-Class Work**



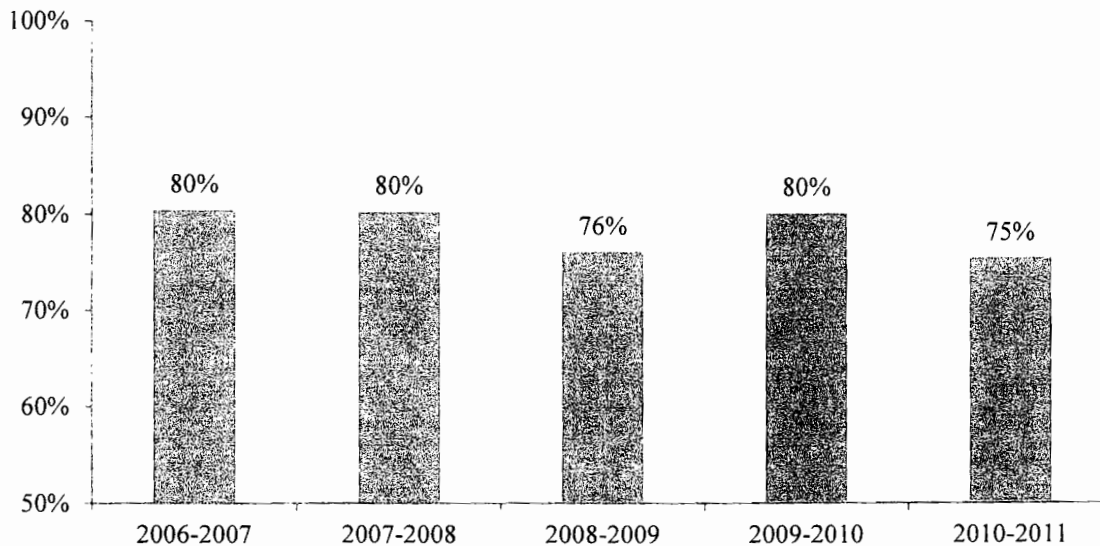
**Percent of Second Year Students
Studying
More Than 2.5 Hours
for a College Test**



**Academic Reasons for Withdrawing
Withdrawing Students**

How important were these reasons in your decision to withdraw this term?	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
	<i>Percentages</i>				
Too many required courses Major/Minor Reason	11.6	15.6	11.7	11.9	13.1
Dissatisfied with my grades Major/Minor Reason	34.7	34.2	35.5	39.8	38.3
Courses were too difficult Major/Minor Reason	19.1	18.7	20.3	22.0	27.0
Courses were not challenging Major/Minor Reason	5.9	8.1	4.6	4.9	7.0
Dissatisfied with academic reputation of Ball State Major/Minor Reason	6.2	5.2	4.6	5.4	6.4

**Withdrawing Students
Percentage Attending Class Very Often/Often**



Overview of MAP-Works at Ball State University

(Provided by Office of Institutional Effectiveness)

In attempt to foster an increased understanding of the factors associated with retention and persistence at Ball State, as well as to enable student success, Ball State utilizes the MAP-Works[®] system from Educational Benchmarking (EBI). MAP-Works[®] is an assessment system designed to promote student success and retention by helping students align their behaviors with successful outcomes and by enabling administrators (like residence hall staff and advisors) to identify at-risk students. The original survey was developed by the Ball State Office of Academic Assessment and Institutional Research, Office of Housing and Residence Life, Academic Advising Center, and Learning Center. In the fall of 2006, Ball State partnered with EBI to move the survey and its reporting online.

Ball State currently administers the survey to incoming first-year and second-year students during the early part of the fall semester at Ball State. Students are asked questions about items known to be related to retention and persistence such as their desire to stay at the institution, the degree of homesickness they experience, how frequently they attend class, etc. After completing the survey, all students receive a customized student report that helps them each gain a better understanding of their strengths and weaknesses in areas essential to their persistence at the school. In addition, the MAP-Works system provides the infrastructure to manage critical support and intervention efforts that students may need. Finally, summary reports and analyses provide the data necessary for informing policies and procedures which promote retention and persistence.

Appendix C

Academic Rigor; 2010 Ball State University Alumni Survey and Executive Summary

2010 ALUMNI SURVEY

EXECUTIVE SUMMARY

- This survey addresses alumni perceptions of learning at Ball State. Additionally, it provides information about employment, further education, and other departmental experiences.
- The 2010 Ball State Alumni Survey is the first version to be conducted entirely online. Because email addresses are not available for most alumni, an invitation letter was mailed to home addresses in which alumni were asked to respond online. The first letter was sent to all 2,617 academic year 2008-2009 baccalaureate degree graduates on October 25, 2010. After a second letter, mailed on November 16, 11.9 percent (311 alumni) responded to the survey.
- Known demographic and academic characteristics were used to compare respondent and non-respondent groups. Demographic (gender, race and age) differences between these two groups were not statistically significant. However, differences on three academic variables (SAT Quantitative, high school percentile rank, and Ball State GPA) were statistically significant. Our sample is likely to be slightly skewed toward students with higher academic achievement in high school and college.
- About 60 percent of respondents were employed full-time. About 79 percent of those employed full time were employed in their major or in a field related to their major. About 86 percent indicated they were satisfied or very satisfied with their employment.
- Among those employed full time, about 62 percent reported that a college degree was required for their employment.
- Seventy percent of full-time employed alumni were working in Indiana. About 11 percent were working elsewhere in the Midwest.
- Nearly 27 percent of respondents were pursuing graduate or professional degrees. About 35 percent were pursuing some type of further education, from graduate programs to job training and professional development.
- Sixty-five percent of respondents reported plans to eventually obtain a graduate or professional degree. Fourteen percent indicated they had no plans for further education.
- Nearly half of those who specified an institution for graduate or professional school indicated they were attending Ball State.
- More than 94 percent of respondents held positive or very positive attitudes toward Ball State.
- More than 94 percent of all respondents indicated that their experiences at Ball State prepared them very well or satisfactorily in the areas of intellectual and personal growth. More than 85 percent reported that they were very well or satisfactorily prepared for a career and for further education.

- More than 95 percent of all respondents were satisfactorily or very well prepared with regard to speaking, listening, problem solving, analysis and evaluation of ideas, critical thinking, and lifelong learning. About 93 percent report that their Ball State experiences prepared them very well (50.0%) or satisfactorily (42.9%) in the area of writing skills.
- Math skills were the lowest rated academic skill, with about one in five graduates reporting poor preparation in this area.
- Nearly two thirds of all respondents indicated that Ball State experiences prepared them very well to work cooperatively with others. Less than 4 percent felt they were poorly prepared in this area.
- More than 9 in 10 respondents indicated their Ball State experiences prepared them very well or satisfactorily in all eight personal and career skills.
- Nearly 7 in 10 respondents report participation in student clubs or organizations at Ball State.
- Nearly 20 percent of all respondents indicated they had taken capstone courses. About 16 percent reported immersion learning experiences (15.7%) or study abroad experiences (15.4%).
- More than three quarters of all respondents agreed or strongly agreed they were satisfied with feedback from instructors about their academic progress (77.2%) and opportunities for evaluation of classroom instruction in their department (75.3%).
- Seventy-one percent of respondents agreed or strongly agreed that they were satisfied with faculty advising in their department.
- About two thirds of all respondents agreed or strongly agreed they were satisfied that courses in their department prepared them for employment.
- More than 8 in 10 respondents were satisfied or very satisfied with their department of major, and with the teaching ability and professional expertise of faculty in their major.
- Online departmental and college extracts of this information will be available in March.

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Wabash National Study of Liberal Arts Education: "High-Impact Practices and Experiences from the Wabash National Study." Center of Inquiry in the Liberal Arts at Wabash College.
www.liberalarts.wabash.edu.

On-Line Resources

Wall Street Journal. The University Of Adam Smith
<http://online.wsj.com/article/SB10001424052970204879004577110970031199712.html>

Inside Higher Ed: 'We're Losing Our Minds'
<http://www.insidehighered.com/news/2012/02/09/qa-authors-book-arguing-learning-waning-higher-ed#ixzz1ltBqtUJX>

The Lumina Foundation's "Degree Qualifications Profile"
http://www.luminafoundation.org/publications/The_Degree_Qualifications_Profile.pdf

Association for Colleges and Universities' "Liberal Education and America's Promise" (LEAP)
<http://www.aacu.org/LEAP/index.cfm> (Indiana is NOT a LEAP state)

Other Universities and Academic Rigor. Powerpoints from:

The University of Central Florida:
www.fctl.ucf.edu/ResearchAndScholarship/SoTL/NSSE/

The University of Georgia
http://teachingacademy.uga.edu/events/faculty_symposium_06/G3%20Rigor%20in%20the%20Classroom.ppt

video from the University of Virginia:
<http://www.virginia.edu/uvatoday/newsRelease.php?id=14784>

UCLA
<http://www.cse.ucla.edu/products/reports/r671.pdf>

University of Illinois
<http://www.eric.ed.gov/PDFS/EJ860952.pdf>

Even YouTube: (this one is quite good at outlining the issues)

<http://www.youtube.com/watch?v=gsj-wPcFMMA>

and more....

"Mixed grades: A Survey of Provosts" by Scott Jaschik from Inside Higher Ed :

<http://www.insidehighered.com/news/survey/mixed-grades-survey-provosts>

“Are College Students Learning?” By Jonathan Zimmerman from The LA Times :
<http://www.latimes.com/news/opinion/la-oe-zimmerman-are-college-students-learning-20120131,0,3266290.story>

And then one finds this, which may have been a better place to start all along:

<http://nsse.iub.edu/html/about.cfm>

The 2011-12 Inside Higher Ed Survey of College and University Chief Academic Officers
http://www.insidehighered.com/sites/default/server_files/files/finalCAOsurveyreport.pdf

And how Boston University sees the current marketplace:

<http://thechoice.blogs.nytimes.com/2012/01/24/boston-university-rigor/>

Here is the University of Pittsburgh telling journalists how to report on the subject of Academic Rigor. Insider trading information, and not a bad read.

<http://www.lrdc.pitt.edu/pubs/Abstracts/FiezRigorous.pdf>