

Long Range Planning & Environment Committee Report

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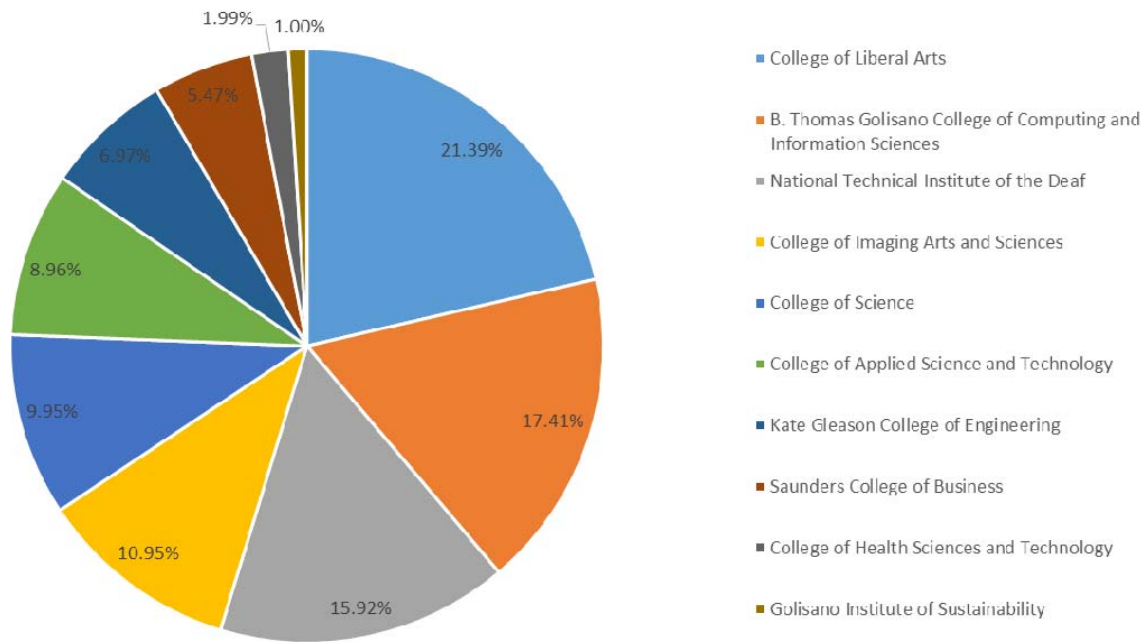
Charge 1: Survey Results

KRISTOFFER WHITNEY, DATA ANALYSIS

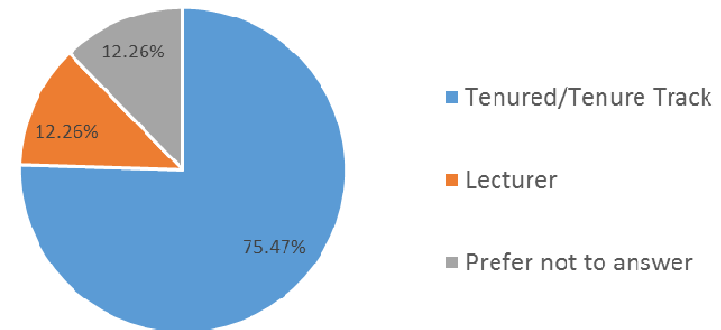
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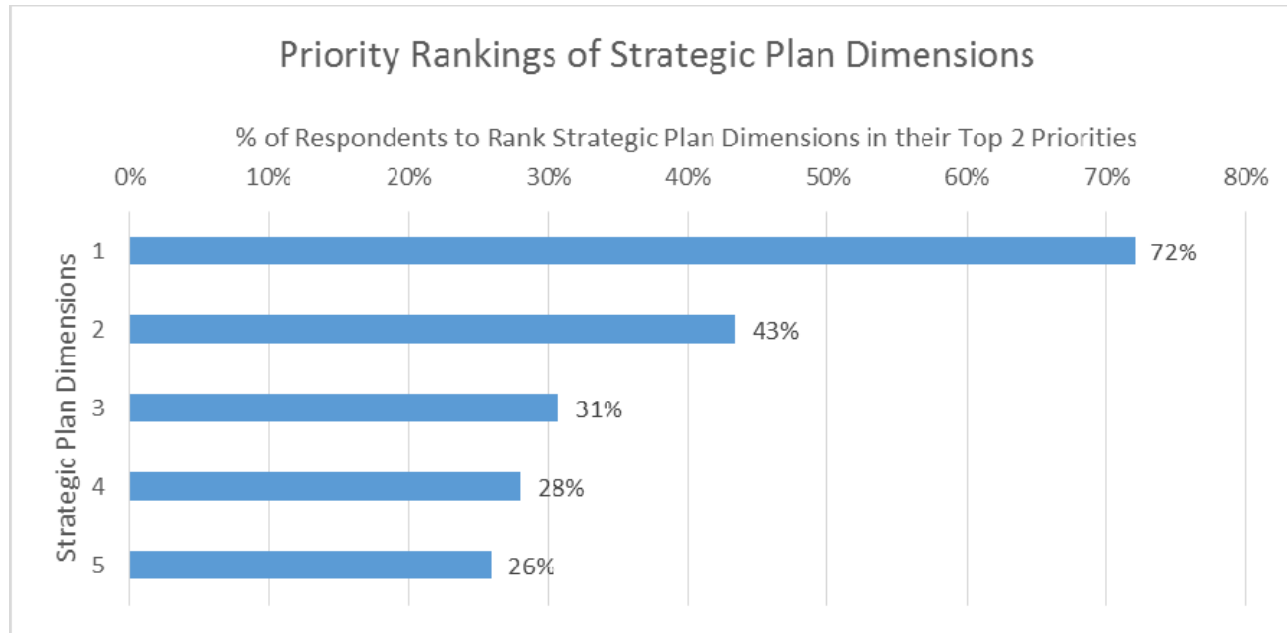
TRACY WORRELL, SURVEY DESIGN & DATA COLLECTION

% of Respondents by College



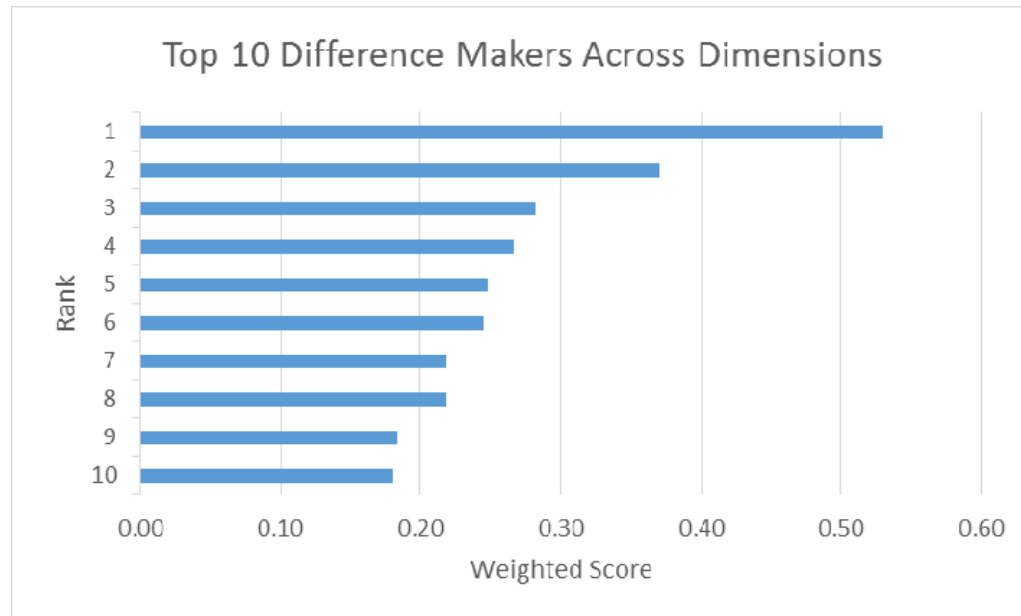
% of Respondents by Position





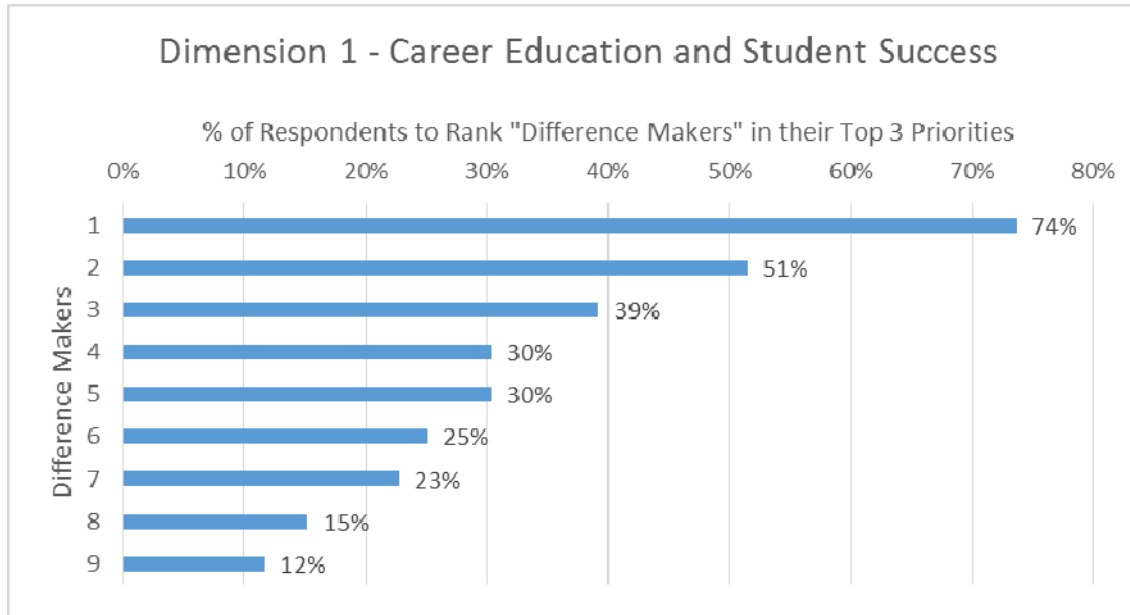
Strategic Plan Dimensions (in rank order)

1. Dimension 1 - Career Education and Student Success
2. Dimension 2 - The Student-Centered Research University
3. Dimension 4 - Affordability, Value, and Return on Investment
4. Dimension 5 - Organizational Agility
5. Dimension 3 - Leveraging Difference



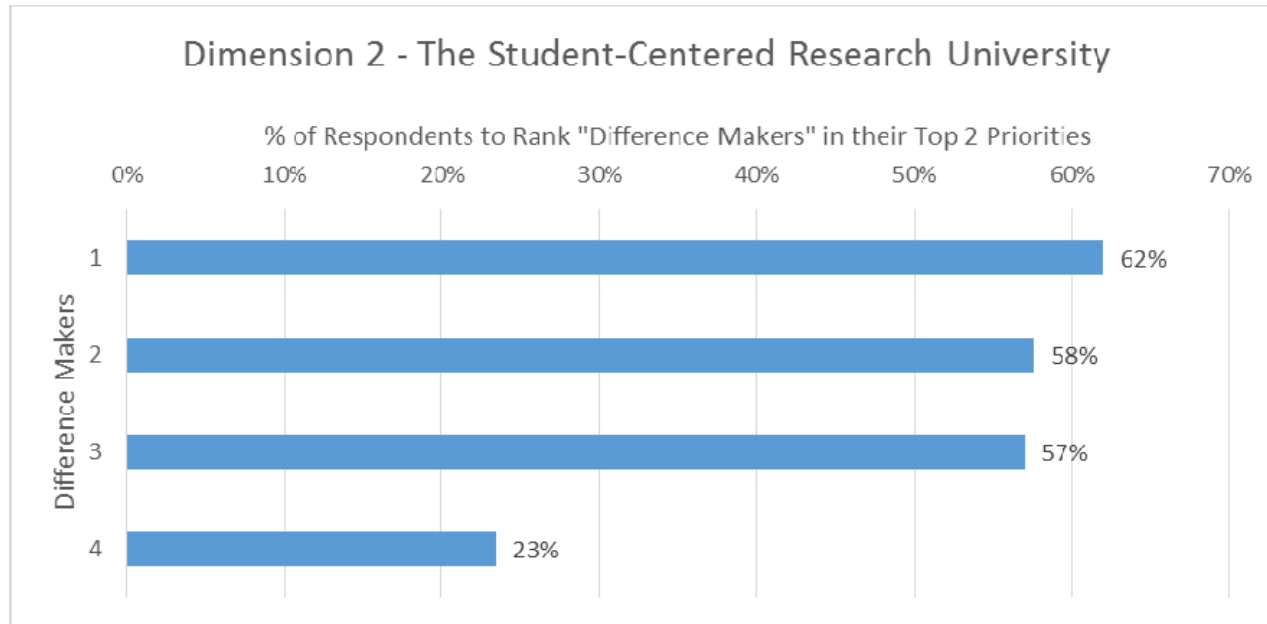
Difference Makers

1. RIT will build upon its strong academic portfolio, extensive experiential learning and co-curricular offerings, and the rich diversity of its people and programs to develop “T-shaped” graduates possessing both disciplinary depth and breadth across multiple skills and competencies.
2. RIT will offer opportunities for study at the intersections of technology and the arts, imagination and application, and rigor and curiosity.
3. RIT will expand and strengthen opportunities for experiential learning to the point that there are sufficient placement opportunities for all undergraduate and graduate students to participate in at least one such experience.
4. RIT will be internationally distinguished as a research university through its focus on and investment in specific inter- and transdisciplinary research areas identified through a systematic and inclusive selection process.
5. RIT will enlarge its graduate portfolio through adding professional and research-focused programs in STEM fields, the humanities, social sciences, and arts, bringing the graduate population to 30 percent of the total student population. New programs will include experiential learning, research, scholarship, and co-curricular opportunities. All programs will strive for the highest levels of excellence and global recognition.
6. RIT’s research enterprise will be a national model of leveraged diversity (disciplinary, generational, global, and experiential) based upon the principle that teams constituted of members with diverse expertise, talent, experience, and backgrounds drive the best questions, the best processes, and the best solutions.
7. RIT will be a center of innovation, creativity, and entrepreneurship that serves as an important economic engine for Rochester, the region, and the nation.
8. RIT will further enhance its position as the preeminent academic institution and model for professional and technical education for people who are deaf or hard of hearing around the world.
9. RIT will be the university with the best placement rate and return on investment of all private universities in the United States.
10. Through a blend of curricular, co-curricular, and experiential offerings, RIT will build a leadership program that will equip more graduates to become leaders in their fields.



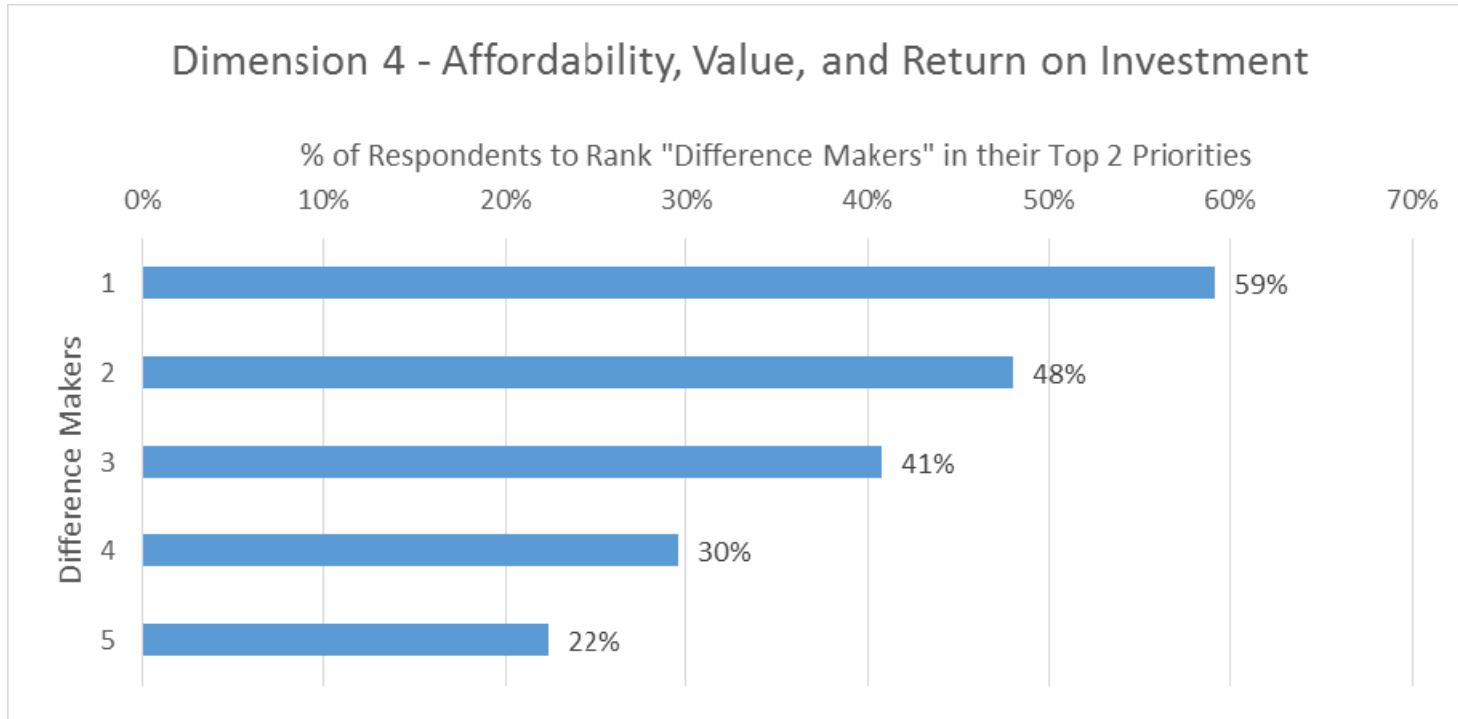
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6. Through a blend of curricular, co-curricular, and experiential offerings, RIT will build a leadership program that will equip more graduates to become leaders in their fields.
7. RIT will lead higher education with a bold new model for ensuring academic quality through a unique outcomes-based assessment model designed to ensure continuous progress in student learning, graduate success, stakeholder satisfaction, and academic excellence.
8. RIT will make the on-time graduation of its undergraduate and graduate students a highly visible university priority.
9. RIT will establish a campus-wide culture that embraces alumni, contributes to their lifelong learning, and relies upon them for counsel and support



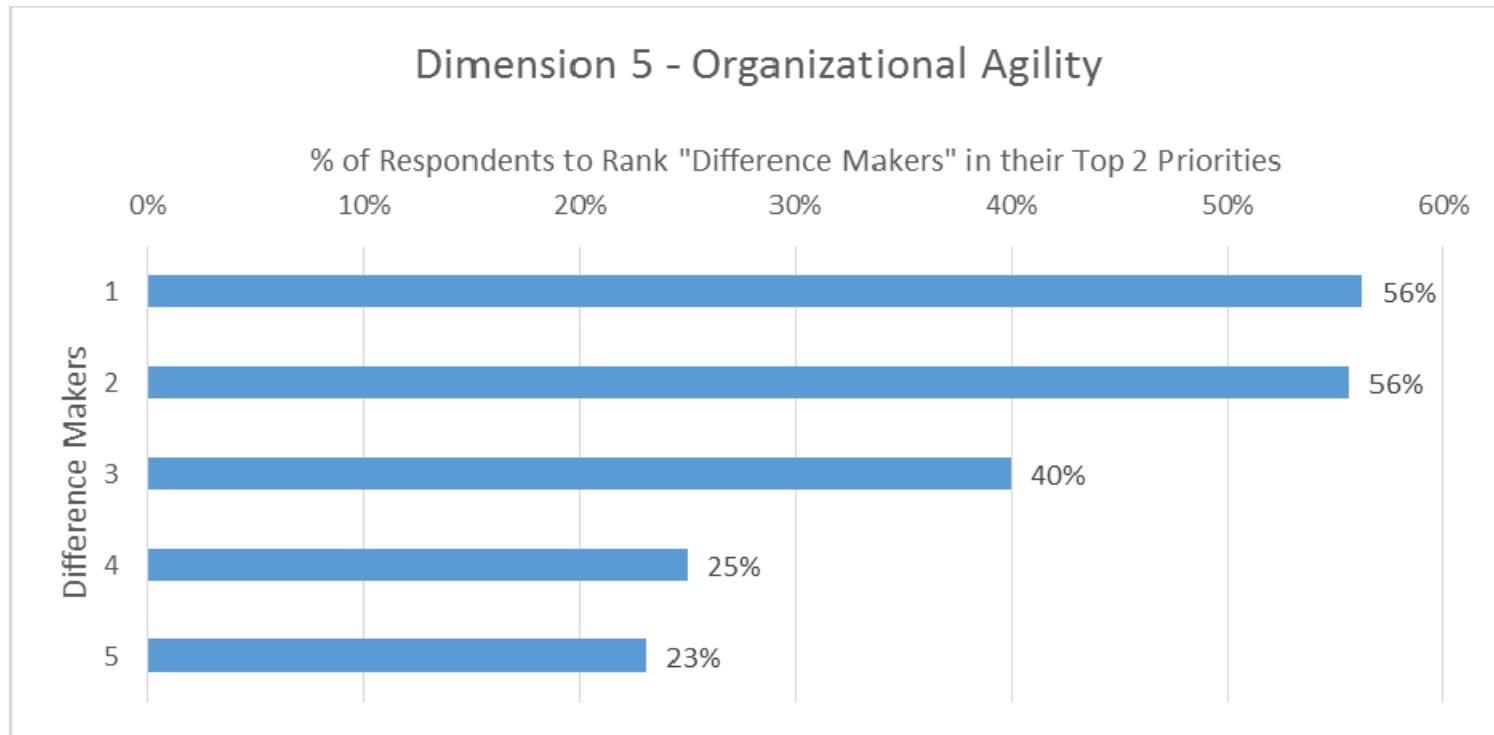
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4. RIT will maximize the impact and financial support gained through its research programs by collaborating more extensively with business and industry to yield \$100 million in total research funding annually.



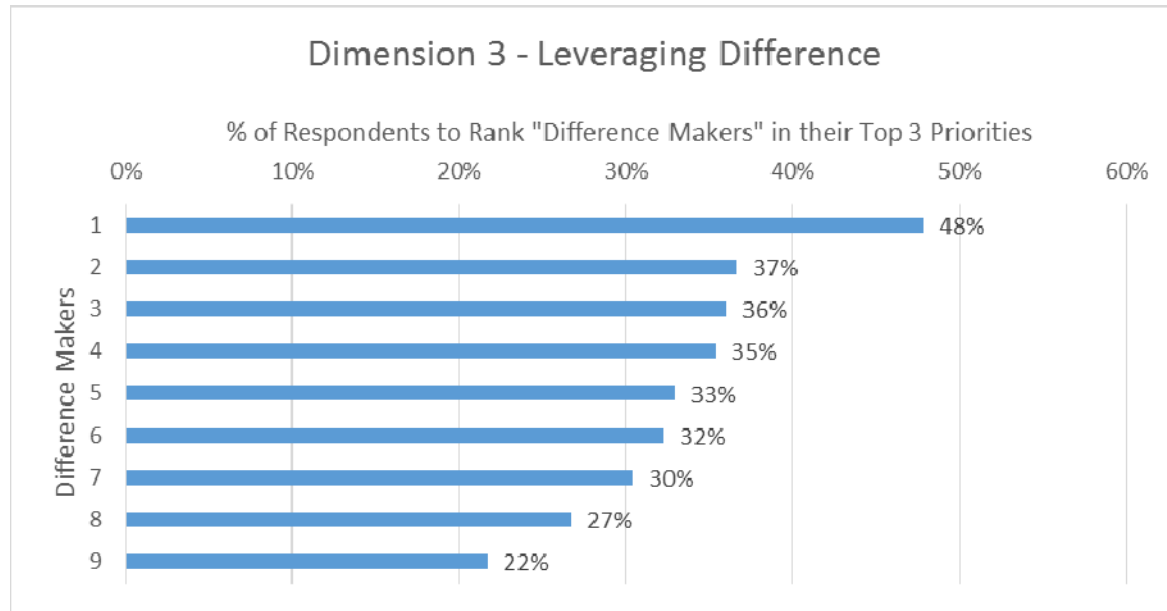
Difference Makers

1. RIT will be the university with the best placement rate and return on investment of all private universities in the United States.
2. Through a tuition containment program and a capital campaign drive for additional scholarship support, RIT will address the financial needs of promising low-income students.
3. RIT will become the university that best utilizes educational technology to improve access, maintain academic quality, and achieve desired learning outcomes while balancing costs.
4. RIT will launch a blended capital campaign entitled "Greatness Through Difference" to raise the public, private, and research funding necessary for the achievement of critical "Difference Makers" in the 2015-2025 strategic plan.
5. RIT will develop alternative methods of raising revenue, including developing innovative, fully online workforce development programs for nontraditional students, increasing opportunities for venue rentals by external parties, and providing services to the Rochester community.



Difference Makers

1. RIT's curricular, administrative, and organizational structures will serve--not impede--discovery, border crossing, and collaboration among students, faculty, and staff.
2. RIT will develop a university culture that is less risk-averse and less bureaucratic; it will streamline compliance measures and empower local decision-making responsibilities.
3. RIT will reduce academic and administrative silos and diminish the lingering negative effects of a silo culture.
4. Following a thorough budget and space audit, RIT will create a master space plan.
5. In the service of ensuring a sustainable planet, RIT will restore, ameliorate, and work within the systems and resources necessary to meet the needs of the current generation in an equitable manner without jeopardizing future generations.



Difference Makers

1. RIT will be the largest producer of female, under-represented male, and deaf or hard-of-hearing STEM graduates among all private colleges in the U.S.
2. RIT will establish targeted centers of collaborative research with international universities, laboratories, and/or corporations in areas of common expertise and aligned goals.
3. RIT will eliminate the achievement gap between under-represented and majority students, becoming a model of inclusive excellence for all students.
4. RIT students and faculty will be internationally recognized for their global experience, their mastery of intercultural competencies, and their engagement with globally relevant problems.
5. RIT will be among the top five national universities in global engagement, as measured by the breadth and size of its international student and alumni populations.
6. RIT will initiate a comprehensive marketing campaign to make all current and potential stakeholders and higher education at large fully aware of the university's extraordinary history, its unique character, and its exceptional record of success.
7. RIT will become a model of inclusive excellence for all faculty and staff in the areas of professional development and promotion.
8. RIT will reflect diversity and inclusion as core values in assessing performance and promotion at all levels and in all functions of the university.
9. RIT will be a model of excellence in its deployment of difference to solve problems and practice innovation.

Charge 2: Tenure Policy vs. Difference Makers

Prepared by: Amanda Bao, Ann Hager, Andres Kwasinski, Patricia Newcomb, Susan Smith Pagano, & Patti Russotti

Dimension One: Career Education and Student Success

- I.1.2 “Create policies and practices that facilitate the development of interdisciplinary majors, minors, and electives, as well as team-teaching, individualized majors and minors, and innovative learning delivery methods”.
 - The current evaluation structures for tenure are inadequate to evaluate interdisciplinary work (teaching or scholarly).
- I.2.2 “Design and implement a clear, unbiased process for rewarding and encouraging faculty to work in new interdisciplinary teaching and research areas.”
 - There need to be provisions in the tenure policy that create incentives for faculty to undertake testing of new teaching approaches and multidisciplinary endeavors.

Dimension Two: Student-Centered Research University

- II.1.1 “Continue adding interdisciplinary Ph.D. programs that are in line with the university’s research strategy”.
 - Faculty may not get credit for certain kinds of inter-disciplinary work (teaching). There are currently no incentives to work with students outside of home school or college or in interdisciplinary graduate programs or research centers.
- II.2.2 “Create a special program to encourage collaboration in research activities with alumni-led businesses.”
 - Perhaps not all research programs are suited to these types of grants, and it is unclear whether industry grants are valued the same as NIH/NSF grants.
- II.3.1 “Increase the number of master’s and bachelor’s level students on funded research teams.”
 - Need to acknowledge that graduate students may slow down research productivity (due to the training/learning process) and could delay publication/dissemination (see also points below).
- II.3.2 “Develop a mentoring/orientation program for undergraduate and graduate students that extends beyond the classroom to develop their capacity to add value on funded research teams.”
 - Is there enough incentive to mentor graduate students in the tenure policy and process—especially given that not all graduate students publish/disseminate work or finish programs on time? More funding would be needed to support research for mentoring graduate students; institute currently does not fully support graduate student stipends. Service on graduate committees outside home college may or may not be valued or recognized in the current tenure process.
- II.4.1 “Ensure that graduate programs include innovative curricula, capstone projects, cooperative education, and international collaboration”.
 - Developing collaborative/interdisciplinary capstones and teaching in graduate programs

will require more faculty time at the expense of research. Could this be clearly defined and *weighted* for the tenure track faculty workload decisions and tenure committee review?

Dimension Three: Leveraging Difference

- III.1.1 “Establish research partnerships in emerging international centers of excellence”.
 - These directives require grant writing and procuring funds to make each of the objectives occur for Dimension Three. How will the faculty be able to balance teaching, finding grants to do research, and be international?
- III.1.2 “Deploy innovative ways to educate international students”.
 - Will this be an expectation for tenure and how will the guidelines be changed to define this goal?
- III.5.5 “Develop 10-year plans for increasing the number and percentage of females, under-represented males, and deaf or hard-of-hearing students in STEM majors”.
 - These issues are administrative and faculty have very little to do with making this occur, yet the increase in students will potentially have an impact on teaching and evaluations.

Dimension Four: Affordability, Value, and Return on Investment

- IV.2.2: “Following extensive market research, the ILI will add innovative workforce preparedness programs in areas of highest need (locally and nationally). Programs will likely reflect a shift to learning-centered, competency-based delivery.”
 - Recognize course development and enhancement utilizing technology. Value educational pedagogical research.
- IV.1.1: “Include the criteria of 1) academic program currency; 2) student placement; and 3) post-graduation success in academic program assessment and review.”
 - Put more weight on teaching quality while addressing research requirements.
- IV.4.1: “The capital campaign decision makers will develop a prioritized list of those Difference Makers most likely to be attractive to potential funders, most likely to lead us to our goal of greatness, and most marketable to potential stakeholders.”
 - Need more investment in research facilities. Research funding pressure on faculty: research facility and equipment, lab space, lack of graduate students, and heavy teaching loads are the top obstacles for faculty to pursue research grants.

Dimension Five: Organizational Agility

- V.1.2 “Remove impediments to the approval process for jointly offered interdisciplinary programs”.
 - What is the current approval process? In terms of tenure, how would jointly offered programs be reviewed and evaluated? There is currently no process in place to protect and support the tenure track faculty member who is engaged in this kind of teaching activity.

- V.2.1 “Reward collaboration within and across colleges with regard to curricula, teaching, research, and the student-faculty-staff culture”.
 - Who will do the evaluation for these rewards and what would the “reward” look like? Would there be a bonus for being involved in these collaborative teaching and curriculum activities for someone who is going up for tenure? There is currently nothing written in the tenure guidelines that specifically addresses the expectation or value of someone being involved in a collaborative teaching experience.
 - In a collaborative teaching experience, who will be the “lead instructor”? Will the college offering the course dictate the lead instructor? In terms of evaluation, how will individual teaching evaluations be handled for future documentation purposes?
 - How will future tenure committee’s be staffed when the tenure candidate has been involved with interdisciplinary activities? Should there be a requirement that a representative from the joint college be a member of the committee?

Charge 2: Promotion Policy vs. Difference Makers

Prepared by: Amanda Bao, Ann Hager, Andres Kwasinski, Patricia Newcomb, Susan Smith Pagano, & Patti Russotti

NOTE: At the current time, there exist two RIT policies on rank and promotion, one that is in effect at this time and one that will become effective at the start of the 2017-2018 academic year. Because of its planning purpose, this study was based on the policy that will become effective at the start of the 2017-2018 academic year.

Dimension One: Career Education and Student Success

- There need to be provisions in the promotion policy that create incentives for faculty to undertake testing of new teaching approaches and multidisciplinary endeavors. Moreover, the policy's definition of engagement in teaching should be updated to incorporate interdisciplinary teaching. Likewise, the policy's definition of engagement in scholarship will need to be updated to account for entrepreneurial activities.
- The evaluation structures for promotion (e.g. committee composition, teaching evaluations) are currently inadequate to evaluate interdisciplinary work (teaching or scholarly) and team teaching.

Dimension Two: Student-Centered Research University

- The highlighted specific objectives relate to increasing graduate education and interdisciplinary education and research programs. Developing new programs and increasing graduate student involvement on projects will incur a substantial time commitment of the faculty, possibly at the expense of research productivity, teaching development (especially if normal teaching load must be maintained), and service. In addition, a substantial commitment of funds from the institution would be required to help offset the cost of graduate education for students (full tuition waivers are currently not offered by the institute), and faculty involved in these programs may need to re-focus their efforts on acquiring funding to support students. A mechanism should be established to give credit for mentoring graduate students, regardless of the scholarly output/results of these mentoring activities.
- Similar to the issues related to tenure, it is unclear how faculty will be evaluated or given credit for interdisciplinary teaching/programs and co-advising of graduate students across colleges and disciplines. Moreover, there would need to be clear incentives for increasing experiential learning components of graduate programs and for undertaking and providing student opportunities for global initiatives.

Dimension Three: Organizational Agility

- The objectives state that RIT faculty will be internationally recognized for their global experience, their mastery of intercultural competencies, and their engagement with globally relevant problems. They will also establish research partnerships in emerging

international centers of excellence. These directives require grant writing and procuring funds to make each of the objectives occur for Dimension Two. How will the faculty be able to balance teaching, finding grants to do research, and be international?

Dimension Four: Affordability, Value, and Return on Investment

- Recognize and value educational pedagogical research in promotion consideration. Put more weight on teaching quality while addressing research requirements. High standard of teaching quality is the best value for students.
- Standardize the teaching loads across RIT. The promotion policy should be fair at the institute level. Different promotion paths for teaching track and research track faculty should be developed.
- Need more investment in research facility. Research facility and equipment, lab space, lack of graduate students, and heavy teaching loads are the top obstacles for faculty to pursue research grants.

Dimension Five: Organizational Agility

- The goal of objective 1.2 allows for more interdisciplinary programs, but the current promotion policy does not include any reference to how interdisciplinary teaching will be recognized, evaluated, and documented. Engagement of teaching should be updated to clearly define interdisciplinary activities and how they should be evaluated by promotion committees. The staffing of promotion committees should be addressed when a candidate is identifying interdisciplinary activities (teaching, program development, or scholarship).
- Objective 2.1 focuses on rewarding collaboration within and across colleges related to curriculum development, teaching, and research. Would these “rewards” be weighted highly in promotion review? If so, the current guidelines should be updated to reflect this emphasis as there is nothing that specifically addresses the expectation or value of faculty involvement in these collaborative activities.
- In a collaborative teaching experience, will each faculty member’s contribution be viewed equally? How will individual teaching evaluations be handled for documentation purposes of promotion review?

Report for Long-Range Planning and Environment (LRP&E) Charge 3: An Approach to Collect Accurate Data on the Number of Students Graduating from Programs with a "Sustainability"¹ Learning Outcome.

Prepared by: David Barth-Hart, Enid Cardinal, Roger Chen and Lisa Greenwood

Several ratings and reports related to sustainability in higher education, including AASHE's Sustainability Tracking Assessment Rating System, Princeton Review's Guide to Green Colleges and Sierra Club's Cool Schools ranking, require schools to report on the number of students that graduate from programs for which there is at least one "sustainability learning outcome". Since this is metric has to be tracked for these reports, it will also be used as one measure of progress toward Objective V.5.3 of Dimension Five in RIT's Strategic Plan: "RIT will develop innovative curricula, programs, and research that foster a commitment to sustainability."

During AY 2015-2016, the Long Range Planning and Environment Committee assisted with the collection of academic related content for these reports. The committee reviewed all academic program learning outcomes. Because the university does not have essential, overarching, or threaded outcomes for sustainability, the committee then developed a list of search terms to help identify sustainability outcomes.

The following terms were used: *sustain, environment, equity, social responsibility, global, ethical, systems thinking*. The committee then reviewed the filtered results to identify which programs included all three dimensions of sustainability (economic, social, and environmental) in the learning outcome(s). The approach used was time consuming.

In order to simplify the process, the committee recommends the following three strategies.

1. Approve sample sustainability learning outcomes against which departments can use to evaluate their existing learning outcomes. Sample sustainability learning outcomes are identified in the next section.
2. Using the sustainability learning outcomes referenced in #1, request all academic departments to identify all programs (majors, minors, immersions, etc.) that have a sustainability learning outcome.
3. Update this information every 3 years to reflect changes in existing programs and the development of new programs.

Using the program list developed through this process, the number of unique students graduating from any of the identified programs can be acquired through the registrar's office on an annual basis.

¹ In 2014 The Campus Environment Committee proposed the following definition of sustainability to Academic Senate: At the Rochester Institute of Technology, the term sustainability encompasses holistic approaches to the awareness, understanding, and resolution of our interrelated ecological, economic, social, and ethical challenges, with the goal of working within, restoring, and ameliorating the systems and resources necessary to meet the needs of the current generation in an equitable manner without jeopardizing future generations.

Sample Sustainability Learning Outcomes

Based on best practices from other schools, there are two ways for a program to be considered as having at least one sustainability learning outcome:

1. Sustainability is central to the degree program as is the case of Sustainable Engineering; Environmental Sustainability, Health, and Safety; or Sustainable Systems as examples. These programs focus on the interconnected nature of global challenges from a systems perspective and include economic, environmental, and social perspectives.
2. A required course for the degree program (major, minor, immersion, etc.) contains a sustainability learning outcome.
Examples include:
 - Design products, process, or services in a manner that considers the social, environmental, and economic implications of those products, process, or services.
 - Understand the impact that human activities have on the environment and society, including the consumption and allocation of resources.
 - Understand the ethical responsibility toward present and future generations.
 - Recognize sustainability as an integrated concept having social, economic, and environmental dimensions.
 - Define and integrate social, economic, and environmental dimensions of global problems.
 - Apply the principles of sustainability within the program field(s)
 - Incorporate insights from multiple disciplines to address sustainability challenges.
 - Identify and explain major sustainability challenges within the program field
 - Understand how the Sustainable Development Goals relate to the program field.

Report for Long-Range Planning and Environment (LRP&E) Charge 4: White Paper on Central Searchable University Curriculum Database

Prepared by: David Barth-Hart, Enid Cardinal, Roger Chen and Lisa Greenwood

1.0 Introduction

This document presents a cost/benefit analysis to propose a central searchable university curriculum database, with the goal of easily identifying learning outcomes that fall under certain criteria. The end outcome and product is a cost saving application for filtering the RIT course offerings meeting specific criteria. Increasingly, RIT community members rely on online information resources to collect information on course information such as course content. Often the decision to acquire these services require understating the actual costs involved without knowing whether the new resources are better than conventional methods. This white paper first identifies the potential benefits for the proposed system, followed by a presentation of potential costs for implementation. Finally, we present and discuss recommendations.

2.0 Benefits

A number of units have a need to identify learning outcomes and course content across the curriculum beyond what is reported for general education or various accreditation requirements. Three that the committee identified include RIT Sustainability, the Fram Chair of Critical Thinking, and the School of Individualized Study, though there are likely other departments with such a need. Each has found a way to utilize currently available information, but the processes may at times be cumbersome and may not capture everything. Students across campus have also expressed an interest in the ability to search or sort courses by the topics they cover, particularly for electives. Topics like critical thinking, sustainability, diversity, or global engagement may be included in the course content or description but not the course title. The current course registration system only has search capabilities by course title or academic department. A searchable database of courses based on content could address these needs and bring several additional benefits to students and the larger RIT community. Additionally, a searchable database would help with STARS rating preparations and offer a more thorough listing of courses meeting a specific criteria, relative to a manual search. Furthermore, the estimated number of person-hours spent mining information between the Campus-wide Sustainability office headed by Enid Cardinal and the LRPE can be an avoided cost or strain on resources. This is a considerable amount of work that has to be done regularly every 3 years, as part of the STARS rating preparations, and it would be largely avoided if we had a searchable database.

- 1) Minimize Search Time: A searchable database minimizes time and effort for finding courses meeting certain learning objectives:

1. Such a system allows for a compilation of course offering statistics easily and accurately, by topic. For accounting purposes, a user of the system may want to compile statistics on a particular type of course, such as those with a sustainability learning outcome or writing component. Having accurate and timely data is important as many of these reports are linked to rating programs that perspective students and other stakeholders utilize.
 2. Such a system allows students to find courses that meet learning outcomes required by their degree plans. For example, an engineering student may be looking for course options to satisfy a math elective requirement. This database would allow the student to assemble a set of courses that meet this requirement, ensuring that a thorough complete list is formed.
- 2) Customize Programs of Study: A searchable database allows faculty advisors to compile a collection of courses into a choice set, when considering course options for student advisees. This would enable more customization of programs of study to an individual student's specific interest.
 - 3) Enhance Course Categorization Capabilities: Such a system allows quick updates to course categorization, since the system is electronic and the bookkeeping will be electronic. This translates into less lag time for updating the course listing with new courses or with the removal of old courses that are obsolete.

3.0 Costs

Implementing a searchable database comes with costs.

- 1) The existing system needs additional software and/or infrastructure to accommodate this new functionality. This also requires labor hours for preparation and possibly development of any auxiliary functionalities. For example, if the system is accessible on mobile smart phones, then two versions may be required.
- 2) Adjusting to the new system may require a learning period by users familiar with the previous system. This may require additional training for staff with duties for maintaining this system.

4.0 Recommendations

When the existing system is replaced, renewed, or upgraded, the University should add a content search functionality. Furthermore, given the student talent at RIT, especially in the field of computing, this may be a project that students in classes amenable to this task. Having students work on this application would also help lower costs.

Charge 6: Tenure Policy vs. Difference Makers Associated with Diversity, Inclusion, and Race And Gender Equality

Prepared by: Amanda Bao, Ann Hager, Andres Kwasinski, Patricia Newcomb, Susan Smith Pagano, & Patti Russotti

Identify specific tenure and promotion processes that either overlap and resonate with, or inhibit progress toward specific difference makers and objectives from the strategic plan associated with diversity, inclusion, and race and gender equality.

After discussion and review, the committee found that the tenure and promotion guidelines and expectations do not identify or address diversity, inclusion, race or gender equality. Human resources and all search committee's focus on these items in the hiring process but they are not delineated within the tenure and promotion policies/guidelines.

The difference makers identify diversity and inclusion, race and gender in terms of recruiting under-represented student populations and developing effective teaching approaches with international students. Consequently, effective teaching reflecting the aforementioned would be reflected in faculty's student evaluations and yearly appraisals and then within tenure and promotion documentation.

The committee believes this is an administrative issue.