FINAL REPORT OF THE ACADEMIC UNIT ORGANIZATION COMMITTEE

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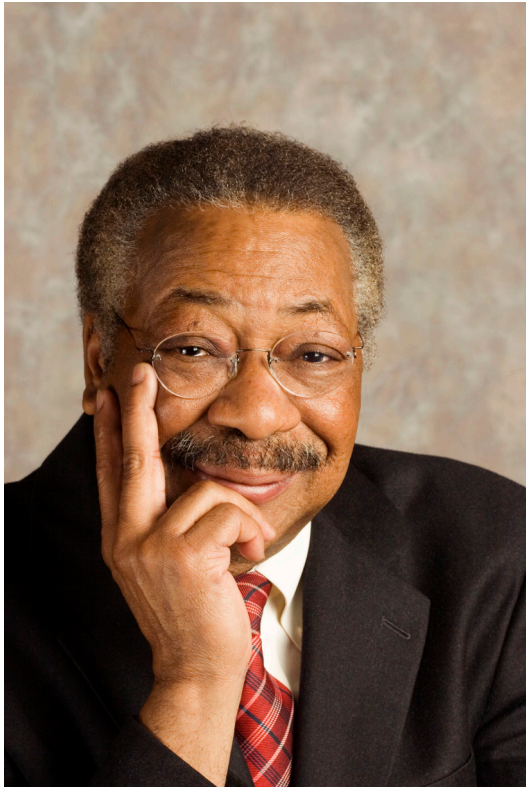*Rutgers Business School, Newark and New
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ACKNOWLEDGEMENTS

This report is dedicated to the memory of our committee Chair Clement A. Price.

"A great and good man, a friend, a colleague, a public servant, an exemplary historian, an extraordinary citizen of uncommon talent, wit, profound commitment to good purpose, and, grace."

His love for his colleagues at Rutgers and his compassion for the communities served by Rutgers will always inspire us.

Named in honor of its founding director, the Clement A. Price Institute on Ethnicity, Culture, and the Modern Experience, is a campus-based, community-oriented center for the public arts and humanities, committed to critical thinking and creativity in civic life.

The Clement A. Price Chair in Public History and the Humanities was created to recognize the central role that public history and the humanities play in the civic vitality and health of the United States, and especially in the continued revitalization of legacy cities like Newark.

Clement's Place, a jazz lounge at Rutgers–Newark, hosts events for the university community and the broader public.

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EXECUTIVE SUMMARY

The Committee on Academic Unit Organization (henceforth referred to simply as the AUOC) was charged with examining how best to organize Rutgers as we respond to the evolving demands of the future.

While our full charge is available in the appendix, in brief we were tasked with reviewing the current structure of academic units, noting our strengths and areas of uniqueness; considering structures for units that span campuses; and making recommendations for restructuring existing units or creating new units that would further our mission. We were asked to focus on bold ideas. While we were given a two year time frame to complete our task, this was nonetheless a formidable assignment, given the complex structure of Rutgers and the unfamiliarity of faculty with the organizational details of those units that had been housed within a separate university prior to the 2013 merger of the former UMDNJ and Rutgers.

The initial phase of our work focused on gaining a better understanding of the current structure of Rutgers, comparing the organization of relevant peer institutions, and defining the developing challenges and opportunities facing all of higher education. To this end, we reviewed a wide range of University documents and reports and consulted with present and past academic leaders from Rutgers and peer institutions. A full listing of the individuals consulted during our work may be found in Appendix 1. We also formed four internal subcommittees, each tasked with more extensive data gathering within specific domains of concern. The initial reports of these subcommittees were presented in the AUOC interim report; the full, final subcommittee reports appear in Appendix 4 of this document. In some cases, the subcommittee work led directly to specific proposals that are presented in this report. In other cases, our ideas were shared with relevant University groups (e.g., our sister Committee on Near- and Long-Term Impact of Instructional Technology and the Taskforce on Integration) and seeded proposals developed by them. Finally, the background work from the initial phase provided the context for the development of additional proposals that emerged from the committee as a whole.

Early in the process we identified a set of core values and ideas that guided much of our work. We recognized the unique structure of Rutgers and sought ideas that would honor our history but also address some of the organizational inefficiencies caused by our legacy structure. We identified unhealthy internal competition between academic units as a real drain on resources, achievement, and morale, and looked for solutions that would help unify units and focus our competitiveness outwards. We adopted "One Rutgers" as a meaningful goal, and sought ways to reduce barriers for students and faculty to access the full richness of the Rutgers academic environment. We acknowledged that the physically distributed nature of our University cannot always be overcome by

technological solutions, and so accepted that certain research and educational ventures will need to be constrained by proximity. We cataloged our unique strengths and worked to develop proposals that could best leverage those areas of distinction. We affirmed promoting multiple dimensions of diversity as a critical core value, and endeavored to infuse this value into all our proposals. We welcomed the

We adopted "One Rutgers" as a meaningful goal, and sought ways to reduce barriers for students and faculty to access the full richness of the Rutgers academic environment.

coming sea change in the broad higher education landscape as a challenge to be met head on, and considered ways to position Rutgers to excel during this time of transformation. Throughout our work, we held as paramount the objectives of improving the student experience, strengthening the research enterprise, and embracing our multiple service roles as the State University of New Jersey.

Along the way, several key realities shaped the outcome of our work. First, we recognized that we did not have the time, resources, or detailed expertise to develop specific implementation plans for multiple proposals. We decided that we could be of greatest service to the University by using our time to develop the broad outlines for a range of ideas. While all of our recommended proposals have been discussed with relevant academic leaders within Rutgers to assure general feasibility, there are a multitude of implementation details that will still need to be researched and developed. We anticipate that each proposal

will need an individual committee to fully assess feasibility and develop an implementation plan.

A second factor that shaped our work was the still-evolving nature of the relationship between the four Rutgers campuses. On the one side was the desire for "One Rutgers" to represent a meaningful integration of the entire University, with increased access for students and faculty to the resources of all campuses. On the other side was the seeming actual movement of the University towards a system organization, with increased administrative autonomy for the geographically distinct campuses. Part of our charge was to consider structures for units that span campuses. Since the relationship between the campuses and the central administration appears to still be in flux, we felt it was impossible at the present time to determine the optimal multi-campus structure for units. Instead, we propose that the existing multi-campus units, with their diverse organizational structures, as well as our newly proposed multi-campus units, with novel organizational structures, be tracked over time to determine which structures work well within the multi-campus environment into which Rutgers will eventually converge. While this approach may temporarily leave some units in a sub-optimal organization, we felt that piloting new structures with new units would be less disruptive overall and avoid the risks associated with a wide-spread, top-down structure that might turn out to perform poorly.

A third consideration was an appreciation for the complexity of the university system and a desire to consider remedies to identified problems in a step-wise manner, recognizing that a more focused

reorganization should be tried and given time to be evaluated before a more fundamental (and disruptive) restructuring should be implemented. This led to our classifying proposals into three categories; proposals we recommend for consideration at the present time, proposals we recommend for consideration at some future time (after the effects of initial proposals can be assessed), and proposals that we feel should not be pursued now or in the foreseeable future.

SPECIFIC RECOMMENDATIONS:

In the end, the AUOC formally considered 10 proposals for the creation of new units or the reorganization of existing units. These proposals do not capture the full breadth of issues considered by each of the four subcommittees (Community Engagement & Outreach, Integration, Interdisciplinarity/Centers & Institutes, and Strategic Planning), and we urge readers to review the full subcommittee reports that are included in Appendix 4. Each proposal recommended for consideration will be briefly reviewed in this executive summary; a longer, but often still abbreviated, description of these proposals, as well as the proposals not recommended for consideration, follows in the main report. These summaries do not do justice to the longer proposals that reflect the full creativity, insight, and hard work of the committee members who developed them, and readers are urged to refer to the longer descriptions of the more fully developed proposals that can be found in Appendix 2.

Recommended for Immediate Consideration:

The AUOC felt that the following proposals represent strategic opportunities that fit well with existing strengths, identified needs, and core missions of Rutgers.

- *School of Global Affairs*: Existing academic strengths, together with our global programmatic footprint and physical location within a major multicultural region of the US, create a strategic opportunity for Rutgers to become a significant intellectual and institutional player, filling a role that extends, even re-imagines, our land grant mission in the areas, primarily, of global health, sustainability, security, and economics and finance. A new school would draw from our present faculty and add to them; it would foster collaboration and provide incentives for innovative teaching, research, scholarship and engagement. The structure of this school would be novel. It would not reside within a single campus, but, exist as a pan-University school. The new school would not absorb existing programs; rather it would articulate with them -- providing opportunities for collaboration – and it would expand opportunities for students, faculty and staff. The school would strengthen the global focus of the entire University.

- *Outreach and Engagement for One Rutgers*: Core to the identity of Rutgers is the community outreach mission as a land grant institution. However, multiple outreach activities are scattered throughout the four campuses of Rutgers, often acting in an uncoordinated fashion and missing important potential synergies. A high-level permanent group charged with leveraging these activities

across units promoting effective communication across units, the Rutgers Engagement & Outreach Committee, would increase the impact and visibility of our outreach work. The Committee would report to the President and be charged with harmonizing and maximizing the impact of engagement and outreach throughout the state and beyond. Critical to the success of the Committee would be adequate resources to support the staff needed to achieve the communication and coordination mission, to increase the local, national, and international visibility of our outreach efforts, and to provide seed funds to initiate new outreach activities, particularly programs that span units and promote collaboration.

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The type of community engaged scholarship and practice that reflects the values of Extension now extends well beyond the traditional agricultural roots of the program.

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- The current Rutgers Cooperative Extension is a critical outreach and engagement activity that is intimately tied to our history as a land grant university. Through the Cooperative Extension, Rutgers has a well-established local presence in every county of the state. The type of community engaged scholarship and practice that reflects the values of Extension now extends well beyond the traditional agricultural roots of the program. The expansion of Extension to a University-wide unit would marry the extensive presence of the current program with a more diverse set of community engaged activities, creating significant synergies and providing a platform to inspire

civic engagement across units while supporting outreach and engagement strategy already in place. The program director would have responsibility for Extension activities across all units on all campuses, would report to the President's Office, and would be a key member of the proposed Rutgers Engagement & Outreach Committee.

- *New Brunswick Gateway*: Providing a quality undergraduate education is a core mission of Rutgers. While our rich history defines us, it also has created complex organizational relationships that serve to unnecessarily complicate and fractionate the undergraduate experience, particularly on the New Brunswick campus. The New Brunswick Gateway would serve as a common point of entry for nearly all New Brunswick incoming students. A non-degree granting administrative unit, it would be responsible for overseeing a unified admission process, non-major advising, and general education course offerings that would continue to be taught by faculty from the existing schools. Students would enroll in the Gateway, where they would complete a common year experience and the prerequisites needed to declare a specific major, at which time (but after no more than two years) they would enroll in the specific school offering that major. Students applying to Rutgers could be initially accepted into both the Gateway and the school housing their intended future major; however, transit through the Gateway would ensure a comparable core educational foundation for students across schools, facilitate early student changes in educational objectives,

and provide a unifying experience that would build a sense of student identification with "One Rutgers". This new structure would allow for a more streamlined and cohesive student experience while preserving the rich history that has produced the wide array of undergraduate degree granting schools present on the New Brunswick Campus. Embedded within the Gateway would be a pilot Program for Self-Directed Education that would explore the feasibility of providing students with the flexibility and advising to select from the tremendous curricular offerings across schools and campuses at Rutgers, to create a customized program of study that is coherent and rigorous, yet personalized to their interests.

> **Gateway would ensure a comparable core educational foundation for students across schools, facilitate early student changes in educational objectives, and provide a unifying experience.**

- *Rutgers Design*: The modern concept of design is as a broad discipline devoted to applying design-based approaches to solve diverse problems. Demand for design professionals who are comfortable working in a range of industries is rapidly growing. Rutgers currently has strengths in many components of design, but these strengths are distributed across many programs housed in different units, with little overall interaction. Rutgers Design would leverage these existing strengths, providing a structure for coordination, collaboration, and further growth in relevant areas.

Rutgers Design will offer new educational and career opportunities for students, create novel academic initiatives and interdisciplinary research, and serve as the hub for innovative partnerships between Rutgers and the public and the private sectors. Our location, close to the vibrant design communities in New York and Philadelphia adds further possibilities for synergies, as do our already established ties to local institutions with strengths in components areas. A variety of administrative structures are possible to meet the objectives of this proposal; further analysis with experts and stakeholders is needed to determine the optimal design for Rutgers.

- *Virtual University*: The geographically distributed nature of Rutgers creates significant barriers to collaboration and interactions across campuses. Even within a campus, the scope of Rutgers can make finding faculty members with related interests a challenge. The Virtual University would serve as a comprehensive online clearinghouse to facilitate cross-unit collaborations in teaching, research, and service activities. Key to this endeavor would be a database of faculty interests and expertise, a robust telecommunication infrastructure to support distant interactions in research and teaching, mechanisms to encourage cross-unit collaborations, and an administrative structure to oversee the program. The Virtual University would exist in parallel with current administrative structures, with the goal of facilitating bottom-up, interest-driven, interactions between faculty members. The Virtual University would leverage

geographically dispersed faculty to create vibrant academic communities across many diverse interest areas that would far exceed the size that could be developed locally with currently allocated resources.

It is a social imperative for Rutgers University to provide guidance for highly motivated non-traditional students.

- *University College — New Brunswick*: The non-traditional student (NTS) population on the New Brunswick campus is significant in size (approximately 2800 students), comprised of those who have successfully met the admissions standards for programs on the flagship campus. It is a social imperative, as well as an accreditation necessity, for Rutgers University to provide guidance for these highly motivated students, just as we do on the Camden and Newark campuses, so they may achieve degree completion in a timely manner. The current unit dedicated to serving the needs of NTS in New Brunswick is the University College Community (UCC). Advising records from that unit show that while some NTS successfully navigate the degree programs offered on the New Brunswick campus, there is a significant population for whom logistic, not academic, barriers are overwhelming. Meetings with the academic deans of the various schools in New Brunswick have identified issues that can be addressed through expansion of select services dedicated to NTS campus-wide. The expanded services should be housed in a unit

named University College (UC-NB) in order to standardize the titles of the units serving NTS across the entire Rutgers system. UC should have a visible presence on the New Brunswick campus and a place for NTS to gather. It should also have an adequate number of staff who can provide pre-admission transfer evaluation for the various schools in New Brunswick and offer advising about which majors can be completed with night, weekend, or online courses. Providing in-depth advising is critically important to ensuring that incoming NTS have appropriate expectations for degree completion. The unit can also advocate for select majors to expand their night, weekend and online offerings, to expand academic opportunities for NTS and address the needs of this underserved population.

Recommended for Future Consideration:

- *Reorganization of SAS/SEBS*: The AUOC identified a number of concerns with the current school structure in New Brunswick. Chief among these were negative impacts to the undergraduate experience, with a highly confusing array of school choices for incoming first-year students, identical majors offered in multiple schools, and a general fragmentation of the Rutgers experience. The New Brunswick Gateway proposal is aimed at addressing the most pressing of these issues. There are also questions concerning whether or not the current organization of faculty into Departments within SAS and SEBS is optimal from other perspectives. Changing areas of scholarship have created

new juxtapositions of disciplines that have historically been distinct enough to be housed in separate Schools. There is an open question if these new associations are best served through more flexible structures such as multidisciplinary Centers and Institutes or if the changes are likely to be persistent enough to warrant a fundamental re-assortment of Departments within Schools. A second question is one of scale; it is unclear if the loss of identity and autonomy inherent in being part of a larger collective is outweighed by the protections and other benefits gained by being part of such a union. Would faculty and students be better served by a larger number of smaller, more narrowly focused schools, derived from the current components of SAS and SEBS? Furthermore, would the disruption of faculty and students engendered by such a large-scale reorganization at this time result in significant decrements to the student and faculty experiences? While

The members of the AUOC hope that these proposals will help shape a new Rutgers that has a clearer focus on our core missions, takes better advantage of our unique strengths and opportunities, and is better prepared to adapt to the changing environment affecting all of higher education. Longer descriptions of each proposal follow this executive summary.

We believe it is critical to allow time to assess the impact of these initial proposals before addressing further fundamental restructuring of Schools.

some expected that fundamental restructuring recommendations at the level of Departments would be a major part of this report, the members of the AUOC feel that the proposals we are recommending for immediate consideration address more pressing issues within the University and will create significant positive change. We believe it is critical to allow time to assess the impact of these initial proposals before addressing further fundamental restructuring of Schools.

PROPOSALS RECOMMENDED FOR IMMEDIATE CONSIDERATION

Brief Overview for:
- The Rutgers School of Global Affairs
- Outreach and Engagement for One Rutgers
- New Brunswick Gateway
- Rutgers Design
- Virtual University
- University College — New Brunswick

RUTGERS SCHOOL OF GLOBAL AFFAIRS

A school of global affairs establishes a presence for Rutgers as a major intellectual and institutional player that extends, indeed, reimagines, its land grant mission on a global scale. Rutgers' global presence will be centered in its four home units in Newark, Camden, New Brunswick and Piscataway, and in the Biological and Health Sciences unit, RBHS, while providing significant opportunities for study, work, research and engagement abroad.

With a curriculum designed to prepare students to deal with vexing global problems and a research and extension program that looks to understand and wrestle with those problems through genuine collaboration across disciplines, the school's vision is to establish Rutgers as a "global anchor institution."

It is appropriate for a public research university to stress practical engagement and service to solve problems and, acting in the land-grant tradition, the new school will seek to use the knowledge gained through research and education to address public needs.

Creating this school is consistent with the spirit and content of the university's four strategic plans and reflects the aspirations of many of the faculty, centers, institutes and students, undergraduate and graduate, throughout the university, for establishing global awareness, cultural competence and international experiences as central to the mission of the university.

The school will galvanize, incentivize, and build on existing strengths and attract new participants as the school looks to intensify its study of diverse cultures, nations and interests. Building on that pedagogical mission, the school will marshal the University's resources to shape policy relating to a range of global issues--climate change, global poverty, human rights, migration, security, nutrition and health, agriculture, energy and other resource challenges— and the role of the United States in addressing those issues.

The school will foster collaboration and provide incentives for innovative teaching, research, scholarship and engagement. It will directly enroll students, provide internships and placements, and build on existing and create new partnerships, local/domestic and global. It will provide training and consulting services as well as applied research relating to global and national problems; create not-for-profit clinics or studios designed to offer students professional experience in capstone projects; and, it would pioneer in creating "incubators," or work sites, where comprehensive programs of resilient public health systems in stressed locales are tested, for example, addressing physical infrastructure needs in areas like water and sanitation in post-conflict/disaster areas but also exploring the social infrastructure needs in such a context, bringing together SEBS, engineering, public health,

planning, policy, language and culture studies.

The school has the opportunity to help internationalize the university's curriculum. It could be used, for example, to develop courses co-organized and co-taught by different schools on global issues, across campuses, and virtually, which, at the same time, would help to move away from the silo structure that often constrains cross-disciplinary/unit/campus activities at Rutgers. Designed to create opportunities for students as well as respond to increasing demand and critical need, a new, degree-granting school, offering well-developed, cross-culture preparation, research and hands-on outreach opportunities abroad, language and culture immersion, and, new paradigms for learning (e.g. clinics for 'real world' experiences and thematic, interdisciplinary research), the school will add luster to Rutgers.

Predominant themes of the School of Global Affairs would include the following: Global Sustainability, Global Security, Global Health, and Global Economics and Finance. Areas of concentration within, and across these areas, are described in greater detail in the proposal but will need to be further developed as plans for the school take shape.

Offerings

Undergraduate and graduate degrees; joint and dual degrees; academic certificates

Faculty

Core faculty should consist of new faculty hires—fifteen at least—whose lines would be in the new school.

Faculty in existing units—more than twenty— who wish to would be able to associate/affiliate with the new school, but the focus on new hires is key to preventing the weakening of existing strengths.

Structure

In order to bring together faculty from a wide variety of disciplines to pursue collaborative and interdisciplinary approaches to issues that impact our world, the school should have a novel structure, most likely in the form of disciplinary clusters—rather than departments—that concentrate on specific themes, a fluid organization that allows some faculty, beyond the permanent core, to affiliate for limited, dedicated time or project-related periods.

Accordingly, the school needs to have porous boundaries so it can provide leadership and support collaborative work with other schools, institutes and programs on all four campuses and minimize the forces that impede collaboration.

We recommend that the school be physically (and administratively) located on the New Brunswick campus, with campus branches, and physical space, on each of the other campuses, each with an associate dean/director responsible for operations at the branch campus of the global school. The dean of this school would report to the NB chancellor.

In the alternative, the president could create a new position, an executive dean, to which the global school dean and perhaps the deans of other cross-campus schools would also report and through this executive dean,

directly to the Senior Vice President for Academic Affairs. The director of GAIA, a university-wide endeavor, reports to the SVPAA. (The committee is well aware of the challenges faced by schools that exist on several campuses when reporting to a single campus chancellor.)

The expectation is that there will be new resources allocated to the school and to its campus branches, including new faculty lines, that add strength to the primary focuses of the schools and that complement the programs and projects on each campus.

Why this school at Rutgers

While there are schools, centers, and programs within universities that focus on global and international or diplomatic affairs, there are no comprehensive schools in our region that come close to the international school within a state, public research university that is being proposed, here, for Rutgers.

A school of global affairs is important for Rutgers, specifically, because it builds on what we have now and holds future promise for critical research and service work and provides essential opportunities for students.

Programs elsewhere: The field of global affairs is moving rapidly. This fast-paced evolution has already undermined the competitive edge that Rutgers had previously established for itself by being one of the first universities in the U.S. to create a Master of Science (MS) in Global Affairs, in the early 2000s, and offering one of the very few PhDs in Global Affairs

in the country. The university-wide effort, GAIA, was created as late as 2011. Competitors include Berkeley, Brown, Columbia, Georgetown and George Mason, Johns Hopkins, Indiana, Michigan State, Northwestern, Notre Dame, NYU, Stony Brook, and Tufts. There are several global players as well.

Next Steps

A small group—with budgetary and staff support—ought to be given the task of building on the vision and mission sketched above. The group would need to begin identifying the school's basic requirements and begin developing a core curriculum, identifying critical units and individual faculty—undertaking a comprehensive assessment of existing strengths at Rutgers is essential—setting priorities for the first several years, planning across existing boundaries (including cooperation with the Big Ten academic programs), engaging in public conversations to generate ideas and support, working within the priorities and pillars of the university's strategic plans as it develops a viable plan that can be presented to the Board of Governors in a timely way. An external review and assessment would be critical to the success of this effort.

A school of global affairs is important for Rutgers, specifically, because it builds on what we have now and holds future promise for critical research and service work and provides essential opportunities for students. Given our geographical location, in four cities on the east coast, moreover, it makes good sense. Rutgers is well positioned, given our present assets, in size and scope, to launch this new unit and, in time, to play a significantly greater role in tackling problems including those

relating to sustainability and security, public health, technology, economics and finance as the globalization of social, economic and cultural change unfolds.

Please see Appendix 2 for a more detailed proposal.

OUTREACH AND ENGAGEMENT FOR ONE RUTGERS

Engagement/Outreach is central to the identity of academic units across the Rutgers system and entails the entire spectrum of the University's interaction with external constituencies, bringing the University's considerable resources to bear in New Jersey and beyond.

Reflecting this perspective, President Barchi, in his charge to the Academic Unit Organization Committee (AUOC), identified an overarching goal to "… cultivate a broad range of partnerships to pool resources and collaborate more effectively with our stakeholders." Our charge, also describes Rutgers as a system of "urban-based universities," and this metropolitan character of our campuses has shaped the University's land grant mission as well as the strategic plans of all academic units of Rutgers University. As it stands, however, the commitment to engagement/outreach reflects more an acknowledgement of Rutgers' historical dedication to service and social responsibility than a strategic plan or vision for those activities and programs. This observation holds especially for the Rutgers Cooperative Extension Service, which has expanded its activities to serve urban communities but has not been systematically or strategically incorporated into the University's engagement/outreach across units.

While all of Rutgers' academic units clearly embrace engagement/outreach with our host communities and the state as well as other stakeholders, we rarely execute it collaboratively or as part of a broader, coherent strategy. Given the prominence of these programs in our unit strategic plans and given the charge to the AUOC, this situation seems anomalous. Moreover, the oft-repeated commitment to "One Rutgers" tends to ring hollow as academic units across the University pursue service opportunities with little coordination or systematic communication either among themselves or with the wider world.

The current state of affairs raises the question of whether we are missing opportunities for more collaboration and impact in our engagement and outreach across academic units. More importantly, perhaps, are we missing opportunities to enhance the efficacy of the university's outreach mission and increase our visibility? To that end, the AUOC proposes the following recommendations to President Barchi:

Institutionallization and Strategy

Create a permanent body, a Rutgers Engagement and Outreach Committee, reporting to the President. The Committee should be charged with leveraging these activities across units and promoting effective communication across units on outreach/engagement activities. While the exact composition of this Committee is not designated in this proposal, it would be essential that high level representation (befitting a

committee reporting to the President) from all academic units be included, along with leaders from university-wide outreach and engagement centers (e.g., GAIA, the Collaborative, DOCS). The Ohio State University, for example has created an Office for Outreach and Engagement that serves as a strategic center for the University (See the Final Report from the Subcommittee on Community Engagement & Outreach in Appendix 4 for a description). Since Rutgers encompasses multiple academic units it does not seem advisable to mimic the OSU model, but the rationale of coordination and synergy for their Office for Outreach and Engagement applies here as well. The proposed Rutgers Engagement and Outreach Committee should be appropriately staffed and charged with systematically reviewing outreach across all units (with the model proposed above or some similar tool) and develop a plan to promote and sustain strategic collaboration on engagement/outreach and to rationalize our online and off campus course offerings.

1. Budgets and Investment
The Committee should be placed in charge of a significant fund of seed money that would be used to promote outreach, in all its forms, and should give special consideration to proposals that come from multiple units and promote collaboration. This body should also assure that any impediments to collaboration and leveraging created by RCM are effectively solved.

2. Communication and Visibility
The Committee would be charged with developing and maintaining, in cooperation with academic unit and media relations, a plan that maximizes Rutgers' outreach visibility not only across the state, but also the nation and internationally. A first order of business should be to assure that all eligible Rutgers campuses are members of both:

> (a) The Campus Compact - http://compact.org and

> (b) The Coalition of Urban and Metropolitan Universities (CUMU) http://www.cumuonline.org/.

3. A University-wide Extension Unit
Expand the work and reach of Rutgers Cooperative Extension by placing Extension faculty members in all Rutgers units. These faculty members, with appropriate extension line-weight, will have promotion and tenure responsibilities with evaluation criteria including either Extension Scholarship or Extension Practice (for county-based faculty), as currently implemented for Rutgers Cooperative Extension faculty in SEBS.

This unit should be led by a senior level university official who will have responsibility for the Extension services across all academic units, and should serve on the Rutgers Engagement and Outreach Committee (see recommendation above).

NEW BRUNSWICK GATEWAY

The history behind the schools in New Brunswick that offer undergraduate degrees has created both a rich array of choices for students and a structure that can be confusing and difficult to navigate.

We have 12 units which graduate undergraduates, some of which directly admit students from high school and some which do not. Confusion exists in situations where the same major, taught by the same faculty, is offered by more than one school with differing tuition charges. Non-uniformity exists in how students who enter through one school but enroll in another for their major are classified. Early changes in educational plans that require transfer to another school may be more difficult than seems necessary. Students often lack meaningful unifying experiences that span schools.

We are notably different in our history and structure from our peer universities. While there clearly is no single optimal university configuration, study of our closest public peers reveals certain common organizing principles. One of note is the relationship between the number of undergraduate degree-granting schools in a university and the presence of a non-degree granting but distinct 'general education' enrolling unit; our only similar-sized peers that do not have such a unit are organized into many fewer degree-granting schools. For universities with a comparable number of degree-granting schools, initial enrollment into this general education unit is either a requirement or the norm (please see the full proposal in Appendix 2 for further details on peer institution organization).

We propose a fundamental reorganization of the early years of undergraduate education at Rutgers-NB to create a single new administrative unit named the New Brunswick Gateway. The Gateway would centralize admissions, advising and general education requirements for all first-year and transfer students. The central goal of the reorganization is to create a common and engaging educational experience for all new Rutgers students as they transition to learning at the university level. It is our belief that the Gateway will 1) present Rutgers as a strong and single cohesive system to the applicant; 2) provide an educational experience that emphasizes the values of learning to the new student; and 3) bond each student more tightly to the university and their peers, thereby creating a lifelong relationship with the Rutgers community.

Students would enroll in the Gateway, where they would complete the common year experience and would remain until they had completed the prerequisites to declare a specific major. At that time, they would enroll in the specific school offering that major. Each major would be offered by a single school, although similar majors could certainly exist within different schools (but should be carefully named to accurately highlight curricular

differences). Students would be in the Gateway for no more than two years. Transfer students could also be initially accepted by and enrolled into the Gateway, allowing for better consistency of requirements for incoming transfer student credentials. Enrollment in a school would not end a student's affiliation with the Gateway, as it would be responsible for the administration of the NB-wide "Core".

The Gateway would also serve as a place where faculty from across the NB schools could meet and work together on our common educational mission. There would be an emphasis on all faculty and administrators participating in some way in Gateway teaching or advising activities (e.g., full courses, mini courses, general advising, career advising, etc.). This could put a uniquely personal touch on our Gateway program, promote a stronger sense of connection in the students to the faculty and administration, and keep all faculty and administrators in closer touch with the evolving realities of the challenges our undergraduates face.

The Gateway would serve as a place where faculty from across the New Brunswick schools could meet and work together on our common educational mission.

Finally, we propose that the Gateway serve as the home for a pilot program in Self-Directed Education. The Rutgers Self-Directed Education Program (SDEP) will have as its mission the education of highly motivated and self-directed students who assume responsibility for the design and conduct of their educational

program, in conjunction with a strong individualized mentoring/academic advising program. The extraordinary access to knowledge available through the Internet has prompted a revolution in how people obtain information and gain knowledge. In appreciation of this large-scale societal shift in how information is consumed and used, we are proposing the development of the SDEP, targeting subsets of outstanding students who would design their own curriculum to complete their own major, based on their own assessment of their future plans and goals, not based on a set of pre-existing generic majors. This program could be organized in multiple ways, some of which are discussed more fully in Appendix 2.

Unit Infrastructure and Next Steps

The New Brunswick Gateway would be a non-degree granting administrative unit that would report to the New Brunswick Chancellor. It would be comprised of the following key elements.

1. *Admissions*
Single admissions portal for RU-NB. (Mason Gross would continue to have a supplemental application procedure. Students could optionally indicate additional application to a specific school/program such as pharmacy or engineering.)

2. *Advising*
General advising and area advising (i.e. everything but major advising), along with career services and scheduling.

3. *Common year experience*
Thematically focused first semester general course, ideally taught in small sections, followed by a second semester

of three one-credit small, mini-courses that would relate general and specific concepts to the theme and also provide a contextualized introduction to the student's intended discipline.

4. General and Area Requirements

The Gateway would have the authority to contract with existing schools to staff general, introductory, and foundational courses. The Gateway would not have a faculty of its own, but serve as an administrative structure to find the best introductory instructional offerings from across Rutgers-NB and offer them to all students. The Gateway would be responsible for administering a universal Core Curriculum among the NB schools.

5. The Rutgers Self-Directed Education Program

This would be a pilot program of 50-100 outstanding students who would be supported in the development of academically rigorous personalized curriculum. This program would facilitate courses of study that span schools and campuses. This pilot could serve as a model for a new era of higher education, and position Rutgers on the cutting edge of a new paradigm of delivering individualized education that fits the needs and educational and career aspirations of each student.

Implementation of this structure would represent a fundamental reorganization of a number of undergraduate academic and student services. An implementation taskforce of faculty and administrative staff will be necessary to determine the least disruptive way to transition to this new structure.

Please see Appendix 2 for a more detailed proposal.

RUTGERS DESIGN

The concept and discipline of "design" has undergone a revolution over the last few decades. Instead of being viewed narrowly as an engineering approach or a practical application of the arts, design has come to be viewed as an essential discipline underlying creative approaches to problem solving, and "design thinking" approaches are being applied in a multitude of diverse areas (see *Harvard Business Review*, September 2015).

Design thinking involves not only the development of discrete products, but extends to the creation, introduction and delivery of interactions, interventions, services, and even lifestyles. Design thinking fosters innovative, interdisciplinary approaches focused on end-user needs. Design thinking can help to solve problems affecting every facet of life, ranging from individuals to businesses and governments, from the home to the workplace, entertainment and health care settings, and having an impact on the imprint that humans make upon the planet. Individuals trained in the discipline of design are likely to be vital members of the modern workforce.

Rutgers Design will be an innovative, pan-school and campus initiative, bringing together the enormous strengths of Rutgers in a diverse variety of design-related disciplines and activities to form a new entity that will provide novel educational opportunities to students from across Rutgers. It will develop innovative academic and research collaborations, and provide consultative services.

Rutgers Design will leverage strengths at Rutgers in the areas of engineering, business, fine arts, urban planning and design, communications, landscape architecture, applied social sciences and others. Rutgers Design will forge relationships and partnerships with leading designers and innovators in design thinking in the New York City and Philadelphia areas, among the leading cities in the world in design in all of its different aspects.
Rutgers Design will provide a focus for the recruitment of outstanding leaders in design and design thinking from both academia and the private sector. It will provide an intellectual and practical home for faculty and students across the university to learn and work together, an educational unit developing novel courses open to students from all of Rutgers, for example, and a locus for development of public service and private sector consulting and collaborative work.

Rutgers Design will: (1) offer new educational opportunities for undergraduate and graduate students, research and extension programs; (2) provide a hub for innovative, interdisciplinary thinking and create new opportunities for academic research in the development and application of design thinking and practice; (3) leverage and build upon existing strengths at Rutgers, fostering cross-fertilization and interactions across Rutgers schools and institutes; and, (4) develop an academic "practice"

that provides consultative services to the public and private sector, a practice that will provide students with opportunities as well.

Unit Infrastructure and Next Steps

The conceptual organization of Rutgers Design is in its earliest stages of consideration. A number of alternative structures that could serve to effectively develop this initiative include the following: (1) a pan-Rutgers Institute (similar to the Stanford model); (2) a new School of Design likely under the aegis of the New Brunswick campus with additional focused activities also housed on the Newark and

Academic activities with significant design components are present on all Rutgers campuses.

Camden campuses; or, (3) a more limited Graduate School of Design. Any of these potential organizational structures must encompass the three main mission areas of (1) offering specific educational content and courses; (2) integrating collaborative academic and research activities; and (3) establishing a "practice" component providing students with "hands-on" experience while supplying expertise on a contractual basis to the public and private sectors. This practice component could be similar in some aspects to "Rutgers Health", a novel, practice-based activity offering the health care expertise of Rutgers faculty from all campuses and units. The structure chosen should serve the needs and enhance the educational and research activities of all four units of Rutgers.

A key first step in the establishment of Rutgers Design will be a thorough inventory and review of existing faculty and programs at Rutgers that can interact with, and contribute to, the general rubric of Rutgers Design. Academic activities with significant design components are present on all Rutgers campuses. Obvious candidates include the School of Engineering, the Schools of Business, Mason Gross School of the Arts, the Edward J. Bloustein School of Planning and Public Policy, the School of Arts and Sciences (New Brunswick), the School of Environmental and Biological Sciences (New Brunswick) and activities directly related to community engagement in the urban campuses in Newark and Camden. Involvement of other schools, such as components of Rutgers Biomedical Health Sciences involved in the delivery of health care at both systems and individual patient levels, is also to be encouraged.

Following the completion of this inventory, a committee of faculty and administrative design experts at Rutgers should be established to prepare recommendations for the optimal administrative organization of Rutgers Design. An advisory group composed of academic design professionals and prominent private sector design professionals—with expertise in different models of academic design programs—should be invited for a site visit to gain their perspectives. These committees may also provide recommendations as to specific areas of focus for the evolving Rutgers Design, as well as for discrete steps for implementation. It has been suggested, for example, that the initial step might be the development of graduate level courses and of project-specific consulting activities as has been

done at other institutions (e.g. Harvard University Graduate School of Design).

Not only will Rutgers Design leverage and integrate design activities from schools and units across Rutgers, but it will also be a vehicle for the recruitment of design experts from across the region and the world to join the faculties of the participating Rutgers Schools. In particular, design professionals from the New York area may provide expertise in all three missions (education, research and practice) as either part-time or full-time faculty.

Please see Appendix 2 for a more detailed proposal.

VIRTUAL UNIVERSITY

We propose the creation of a new structure, termed Virtual University, that would promote collaborations and interactions across campuses, departments, and schools by allowing faculty with shared or complementary interests, but located in different places, to find each other, interact with other, and possibly collaborate in teaching or research.

The Virtual University aims to actualize the opportunities that are missed because Rutgers has a large and geographically distributed faculty. Currently, there is no system in place to help faculty in different but related fields to find each other. Within disciplines, scholars can use online field-specific databases to find specialists with particular research interests. In contrast, across disciplines, nothing exists other than search engines like Google Scholar or JStor, whose scholarship coverage is uneven. As a result, one is reduced to rely on haphazard exploratory phone calls and word-of-mouth to find colleagues with the desired expertise.

By creating a comprehensive online clearinghouse for areas of faculty expertise, the Virtual University would be a significant resource for encouraging cross-disciplinary collaborations in teaching, in research, and in service efforts across Rutgers.

At the core of the Virtual University would be the following four features:

1. *An internet portal providing access to all Rutgers faculty's contact information and scholarly publications or at least summaries of these publications.* This would be achieved by linking existing field-specific searchable databases like *PubMed* for the life sciences, *Scifinder* for Chemistry, *AATA* for art conservation, *Soc Index* for Sociology, etc. It should be noted that currently, even though the Rutgers libraries subscribe to many of these online resources, specialists in one field typically do not know of databases in other disciplines and that different portals exist for each database. Development of a universal portal would greatly facilitate information exchange across disciplines. And importantly, because discipline-specific databases are maintained by others, there would be no need for Rutgers faculty to input contents. The information would remain up-to-date with no effort on our part.

2. *A telecommunication infrastructure that allows faculty to teach on a different campus remotely.* In a distributed system like Rutgers, geography is a significant obstacle to the sharing of intellectual resources. At the same time, existing teleconferencing systems vary greatly in the vividness and immediacy of the remote teaching experience they provide. However, Computer Scientist Richard Martin and colleagues in New-Brunswick have developed a system, termed Wormhole (cost ~$5000), that would

be ideally suited for this purpose. This system takes the form of a large wall (5 by 15 feet) made of video screens allowing individuals at distant locations to interact as if they were in the same room. Equipping every school with at least one such Wormhole (or an analog of this system) would be an ideal way to promote inter-unit and inter-campus teaching.

3. ***An institutional culture that financially promotes interactions and collaborations across units and campuses.*** To promote the types of interactions targeted by this initiative, financial incentives should

The Virtual University relies on unregulated, self-organizing, and decentralized interactions that spontaneously emerge from the bottom up.

be deployed. Therefore, provisions should be included within RCM to encourage inter-unit interactions in teaching. When a faculty member agrees to contribute one or more lectures in a course offered by a different unit, his or her Department should be rewarded.

4. ***An institutional entity to coordinate the financial and administrative aspects of the Virtual University.***

The Virtual University does not replace or sit on top of current administrative structures. It does not determine the assignment of teaching loads, regulate the tenure process, or alter in any way the relation between faculty and their home Departments or Schools. It is a parallel structure that does not alter existing relations between faculty

members and their administrative units. The Virtual University relies on unregulated, self-organizing, and decentralized interactions that spontaneously emerge from the bottom up. While some units have undertaken efforts to develop unit-specific data on the research and teaching expertise of their respective faculty, these resources are much more limited in scope than the comprehensive and searchable university-wide portal on faculty interests, strengths, and disciplinary perspectives that will constitute the Virtual University.

Administrative Organization

As mentioned above, the Virtual University relies on decentralized interactions that spontaneously emerge from the bottom up. As such, it requires minimal administration and oversight. Yet, financial incentives should be deployed to promote the types of interactions targeted by this initiative. In particular, when the Virtual University is used for inter-unit collaborations in teaching, the contributing Departments should be rewarded. Given that such interactions could occur between any of the Rutgers campuses, the administration of the Virtual University should reside with the central administration. This structure would also be responsible for overseeing the maintenance of the technological infrastructure.

Personnel and Resources Needed

One administrator and an administrative assistant should suffice to fulfill the above responsibilities. Maintenance of the technological infrastructure should be outsourced to computing services.

Recommended Next Steps

A committee comprised of librarians, information technologists, telecommunication specialists, and computer scientists should be formed. These experts will be responsible for planning and implementing the development of the internet portal at the core of the Virtual University. Given the overlap between the Virtual University and the mandate of the Committee on Instructional Technology, this committee should be consulted for identifying competent parties and technological solutions for the inter-campus video-conferencing needs of the Virtual University.

Evaluation Metrics

Traffic on the internet portal will be the main indicator of the Virtual University's success. Another key indicator will be the number of teaching collaborations eligible for financial compensation through the virtual faculty. User satisfaction surveys will complement these tools and allow for targeted improvements based on user feedback.

UNIVERSITY COLLEGE – NEW BRUNSWICK

Rutgers University College (UC) was originally founded in 1934 with the mission of serving the academic needs of adult students. The 2007 transformation of undergraduate education (TUE) united the four undergraduate liberal arts colleges in New Brunswick to create the new School of Arts and Sciences. The goal was for all students seeking a liberal arts curriculum to meet the same admissions criteria and curricular standards. Then President McCormick recognized that non-traditional students (NTS) might need additional support to find courses of study that they could complete through night, weekend, off campus, and online course offerings.

Thus, the University College Community (UCC), a non-matriculating service unit was created to address the support needs of NTS from all matriculating units in New Brunswick. Despite this effort, subsequent changes in the core curriculum and limitations on the availability of night, weekend, off campus, and online course offerings made it more difficult for NTS to successfully complete some degree programs in New Brunswick.

The AUOC had been charged with examining how best to organize Rutgers as it responds to the evolving demands of universities. After reviewing the 2015 Task Force Report on Non-Traditional Students and meeting with the heads of several service units, the AUOC Subcommittee on Community Engagement and Outreach determined that the needs of NTS are being adequately met on the Newark and Camden campuses, but not in New Brunswick. For example, approximately 2800 NTS are currently registered on New Brunswick campus, but some face significant logistical challenges to degree completion. Many of these challenges need not have occurred if these students had been correctly advised at the time of original enrollment that certain courses of study would not be available to them due to scheduling constraints. UCC advises these students, but only after many have become disillusioned and frustrated. The committee therefore recommends the expansion of services for NTS on the New Brunswick Campus to include:

- Renaming UCC to University College — New Brunswick (UC-NB). This will make the titles of the units serving NTS similar system-wide and remove the current conflation of the purposes of UCC with that of the Douglass Residential College.

- Providing a visible space for UC-NB on campus where students can gather for study, advising, and socialization (similar to that provided for veterans).

- Providing strategic funds to secure space and staffing for expanded services, as well as securing ongoing funding to continue service provision to this population after strategic funding has been exhausted.

- Expanding the staff of UC-NB. Staff should include a part-time acting dean (full-time faculty member) who can be the liaison to the academic leadership of all matriculating units in New Brunswick; an administrator to maintain day-to-day functions and reporting requirements for the unit; and three full-time academic advisors who will:

    - Facilitate pre-admission transcript evaluation so that students can have reasonable expectations about the time to degree completion;

    - Provide information about (adult-friendly) majors that offer night, weekend, off campus, and online options; and

    - Refer students to alternative options when they reach unscalable roadblocks to degree completion.

The renamed and expanded unit should report to the Vice Chancellor of Undergraduate Academic Affairs in New Brunswick.

PROPOSALS RECOMMENDED TO FUTURE CONSIDERATION

Brief Overview for:
- The Reorganization of SAS/SEBS

REORGANIZATION OF SAS/SEBS

Along with our specific proposals for new academic structures, the AUO Committee extensively discussed proposals that did not lead to specific supported recommendations. We report on these in this section: the committee believes that its work should include the contribution of the ideas from these discussions as much as those that resulted in recommendations for specific structural changes.

Chief among these discussions is the administrative structure of the present schools at RU-NB. From the beginning of our tasks as a committee, indeed from the organizational meetings attended by President Barchi and Chancellor (and then Executive Vice President) Edwards, the present structure of the New Brunswick School of Arts and Sciences (SAS) and the School of Environmental and Biological Sciences (SEBS) have occupied many of our discussions. These are by far the largest academic units at Rutgers New Brunswick, indeed in all Rutgers. Together they account for more than half of all Rutgers students.

The committee has given considerable attention to two specific proposals to restructure SAS and SEBS. The first proposed to create an independent school of School of Earth, Ocean and Atmospheric Sciences (consisting of the Departments of Marine and Coastal Sciences, Environmental Sciences, and Ecology Evolution and Natural Resources (which would migrate from SEBS) and the Departments of Earth and Planetary Sciences, and Geography (which would migrate from SAS). The second proposed separating SAS into four independent schools, each of which would align with the present SAS areas (Social and Behavior Sciences, Humanities, Biological Sciences, and Math and Physical Sciences).

The rationale for the proposals is similar. The two proposals make the assertion that the present structure of SAS and SEBS amalgamate academic areas and fields that are different in their core, purpose and outlook: for example, Exercise Science has little in common with Spanish and Portuguese; Food Sciences has considerably less to do with Landscape Architecture than with the biological sciences that are largely housed outside SEBS. Divisions between schools especially matter for faculty and students in the case of the SAS and SEBS, which are large enough to exhibit high degrees of administrative and academic independence. Both proposals are based on the belief that smaller, more academically coherent and aligned schools will almost certainly translate into more entrepreneurial and engaged faculty and students. The rationale that applies to our newly proposed schools and other structures applies also to older and most established administrative units: administrative structure must follow and support the interests of faculty and students and the changing needs of the community Rutgers serves.

Many of these considerations have resonated with the AUO committee. Our proposals make it clear that we believe in smaller, more flexible administrative units. We believe that RCM has the

potential to encourage cooperative and constructive relationships between schools and the units within them. But size can be an impediment. There are no perfect alignments in academia and smaller is not inherently better. Nevertheless, we believe smaller schools are characteristically less bureaucratic and have the potential to be more academically oriented; that, in other words, the administration of smaller schools is close enough to the actual teaching and research of academic units to provide genuine academic leadership. Other considerations militate against leaving SAS and SEBS untouched, as if the schools are "too big to fail": SAS and SEBS are understood to preserve the core of liberal arts at RU-NB, but the values of excellent research and teaching – social engagement and tradition – which define the liberal arts in a contemporary setting are values that must be shared by the entire university. No one school can make a distinctive claim to these values; no school is absolved the responsibility of embracing them.

The values of excellent research and teaching – social engagement and tradition – which define the liberal arts in a contemporary setting are values that must be shared by the entire university.

At the same time, the AUO committee is fully aware that SAS and SEBS are already being impacted by major change at Rutgers. The creation of the RBHS will continue to have ramifications for both SEBS and SAS (the merger of the RBHS and RU-NB graduate schools is the most recent development). Moreover, we ourselves are proposing in this report

the creation of schools and new fundamental structural alignments, which, if adopted, will bring inevitable changes to the large RU-NB schools: in particular, the adoption of the NB Gateway will transfer much of the administrative focus (pre-major Advising and the NB Core) away from SAS. Both schools will need to allow for the dual affiliations of many members of the proposed Rutgers Design and the Rutgers School of Global Affairs. These changes, we believe, encourage – indeed necessitate – a major rethinking of the largest RU-NB schools. But this process cannot begin until the scope of the ongoing and proposed changes at RU-NB are more fully understood and begin to be implemented. And we believe that planning and implementation must happen at a higher level: we encourage the president to form a new committee of faculty and administrators who will construct a new plan and timetable for restructuring the largest RU-NB schools. The new committee will need to have considerable stature, it will have to work without partisan interests, and, at least initially, it will have to work in confidence: there will be resistance. While the AUOC cannot now endorse specific proposals to restructure SAS and SEBS, including the creation of a School of Earth, Ocean and Atmospheric Sciences, these are proposals that may be worthy of future consideration. We view major structural realignment as inevitable and positive and we urge the president to embrace a process of creating a flexible and porous administrative structure of RU-NB, one more in tune with the nature of teaching and research in the contemporary universities and more responsive to the needs (present and developing) of the university and its students.

PROPOSALS NOT RECOMMENDED

Brief Overview for:
- School of Hospitality or Hotel Management
- School of Veterinary Medicine
- School of Architecture

PROPOSALS NOT RECOMMENDED

The AUOC also considered several proposals that were determined to be a poor fit with Rutgers existing strengths and with potentially limited prospects for distinction given regional competition and national trends.

School of Hospitality or Hotel Management

The AUOC felt that many of the key components needed for a school of hospitality management were missing at Rutgers, so development of this school would require major investments. Low student enrollments led to the recent discontinuation of the Camden Business School B.A. in Hospitality Management and raises questions of whether a school of hospitality management would garner sufficient student interest at Rutgers to be successful. In addition, there is very strong regional competition from well-established and well-regarded programs in NY, NJ, and PA. On balance, the AUOC felt that developing a school of hospitality management was not advised.

School of Veterinary Medicine

While Rutgers does have some academic components that could be drawn upon to build a school of veterinary medicine, it would be extremely costly to build the clinical infrastructure necessary to develop and run a fully functional school. Unfavorable national trends such as flat or falling salaries for veterinarians, typical debt-to-income ratio double that of M.D.s, and increasing class sizes among existing schools as many struggle to cover operating costs also diminished enthusiasm for this proposal. Given the successful Rutgers programs for placing NJ residents into existing schools, the AUOC felt the costs and risks associated with launching a school of veterinary medicine far outweighed the potential benefits. (Please see further information in Appendix 3.)

School of Architecture

The AUOC felt that a broader program in design would be strategically superior to a narrowly defined school of architecture. Ten of the top 35 undergraduate programs in architecture are located in NY, NJ, or PA, suggesting significant local competition. In addition, recent trends have seen declining enrollments in accredited architecture programs. The recommended program in design could incorporate general architecture through strategic partnerships with existing programs. The existing strong cooperative relationship between Rutgers and NJIT, which has the best-ranked architecture program in NJ, made this an attractive alternative to a new school at Rutgers limited to architecture.

(Please see further information in Appendix 3.)

APPENDIX 1: BACKGROUND COMMITTEE MATERIALS

APPENDIX 1.1
CHARGE TO THE MEMBERS OF THE COMMITTEE ON ACADEMIC UNIT ORGANIZATION

Charge to the Members of the Committee on Academic Unit Organization
Wednesday, June 4, 2014

Charge

Welcome and thank you for agreeing to serve on the Committee on the Academic Unit Organization. This newly formed committee is charged with examining how best to organize our academic units as we respond to the evolving educational demands of research-intensive, education-focused residential and urban-based universities. The work of this committee will help guide the organization of Rutgers' academic units, enabling us to envision tomorrow's university.

In particular, the committee will work to:

- Review the current organization of our academic units;
- Identify key areas of excellence and differentiation;
- Consider the best structures for units that span multiple campuses;
- Make recommendations for potential realignments that would allow our faculty to collaborate more effectively in their teaching and research efforts;
- Offer recommendations for potential new schools or academic units that will move our institution forward and align us, where appropriate to our mission, more closely with other great public universities.

Rationale

Envisioning tomorrow's university requires a thorough assessment of the relationship between our traditional academic structures and the demands of tomorrow's scholarship and pedagogy. As we look ahead, we must evaluate our economic models and cultivate a broad range of partnerships to pool resources and collaborate more effectively with our stakeholders. But we must also look closely at our academic structures and reconsider whether traditional models of schools and units are consistent with the increasingly interdisciplinary scholarship being practiced at universities. Rutgers must consider more flexible academic structures that can withstand the disruptive drivers changing higher education. New approaches might include structures allowing graduate students to enroll in more than one department or program, permitting faculty to move more freely between departments and schools, integrating existing units into new collaborative partnerships that are more responsive to today's research and educational needs, or reevaluating the very structures of some of the schools and departments themselves.

Deliverables

The committee will deliver the following set of reports and proposed plans:

An Interim Report (after One Year)

Examples of questions this report should address include:

- What is the current academic organization of the university?
- How can Rutgers organize its academic units most effectively on each campus and between campuses?
- For the schools, departments, and units operating on a multi-campus basis, are the organizational structure and operational responsibilities optimally integrated across campuses?
- Are there potential new schools and academic units—such as a school of veterinary medicine or a school of architecture and design—that the university should offer that it does not currently?

A Final Report (after Two Years)

Examples of recommendations that the committee may provide include: the creation of…

- A proposal for a plan of optimal organization of academic units, including potential realignments, moving forward;
- A list of short-term recommendations that should be instituted in the next five years;
- A list of strategic long-term initiatives that should be considered in university planning processes for ten years from now and beyond.

APPENDIX 1.1
CHARGE TO THE MEMBERS OF THE COMMITTEE ON ACADEMIC UNIT ORGANIZATION

I look forward to commencing the work of this important committee and to the invaluable guidance you will provide as we begin implementing the goals of the strategic plan and building the new Rutgers. Again, thank you for agreeing to serve and for taking on this important responsibility. I look forward to working with you and to reading your recommendations.

APPENDIX 1.2
LIST OF GUEST SPEAKERS TO THE ACADEMIC UNIT ORGANIZATION COMMITTEE

The AUOC had many conversations with members of the broader Rutgers community and with individuals at other universities. Some of these individuals are listed below:

Robert L. Barchi
President

Clinton J. Andrews
Associate Dean for Planning and New Initiatives, Edwards J. Bloustein School of Planning and Public Policy

Michael Beals
Vice Dean for Undergraduate Education, School of Arts and Sciences

Nancy Cantor
Chancellor, Rutgers University – Newark

Richard L. Edwards
Chancellor, Rutgers University – New Brunswick

Thomas N. Farris
Dean, School of Engineering

Jaishankar Ganesh
Dean, School of Business – Camden

Robert M. Goodman
Executive Dean, School of Environmental and Biological Sciences

J. Michael Gower
Executive Vice President, Finance and Administration

Phoebe A. Haddon
Chancellor, Rutgers University – Camden

James W. Hughes
Dean, Edward J. Bloustein School of Planning and Public Policy

Lei Lei
Dean, Rutgers Business School

Peter March
Executive Dean, School of Arts and Sciences

Richard L. McCormick
President Emeritus

Richard W. Padgett
Professor and Co-Director, Rutgers Graduate Program in Molecular Biosciences

Brent Ruben
Executive Director, Rutgers Center for Organizational Development and Leadership

APPENDIX 1.2
LIST OF GUEST SPEAKERS TO THE ACADEMIC UNIT ORGANIZATION COMMITTEE

George B. Stauffer
Dean, Mason Gross School of the Arts

Brian L. Strom
Chancellor, Rutgers Biomedical and Health Sciences

Nancy Targett
Interim President, U of Delaware

Nancy Walworth
Professor and Co-Director, Rutgers Graduate Program in Molecular Biosciences

APPENDIX 2: EXTENDED RECOMMENDED PROPOSALS

APPENDIX 2.1: EXTENDED PROPOSAL FOR THE RUTGERS SCHOOL OF GLOBAL AFFAIRS

APPENDIX 2.1
EXTENDED PROPOSAL FOR THE RUTGERS SCHOOL OF GLOBAL AFFAIRS

A school of global affairs establishes a presence for Rutgers as a major intellectual and institutional player that extends, indeed, reimagines, its land grant mission on a global scale. Unlike universities that have chosen to establish campuses in other countries, Rutgers' global presence will be centered in its four home units in Newark, Camden, New Brunswick and Piscataway, and in the Biological and Health Sciences unit, RBHS, while providing significant opportunities for study, work, research and engagement abroad.

With a curriculum designed to prepare students to deal with vexing global problems and a research and extension program that looks to understand and wrestle with those problems through genuine collaboration across disciplines, the school's vision is to establish Rutgers as a "global anchor institution." It is appropriate for a public research university to stress practical engagement and service to solve problems and so, acting in the land-grant tradition, the new school will seek to use the knowledge gained through research and education to address public needs.

A school of the size and scale we propose will add to the growing importance, visibility and public prominence of Rutgers.

Creating this school is consistent with the spirit and content of the university's four strategic plans and reflects the aspirations of many of the faculty, centers, institutes and students, undergraduate and graduate, throughout the university, for establishing global awareness, cultural competence, and international experiences as central to the mission of the university.

The school would galvanize, incentivize, and build on existing strengths and attract new participants as the school looks to intensify its study of diverse cultures, nations and interests. Building on that pedagogical mission, the school will marshal the University's resources to shape policy relating to a range of global issues— climate change, global poverty, human rights, migration, security, nutrition and health, agriculture, energy and other resource challenges— and the role of the United States in addressing those issues. All are embedded in the ambitious "sustainability goals" of the United Nations (http://www.un.org/sustainabledevelopment/sustainable-development-goals/).

Accordingly, the school must have a broad scope, drawing from and leveraging Rutgers' rich resources in policy-relevant resources, traditional arts and sciences, and professional education (Business, Engineering, and Law, for example), School of Environmental and Biological Sciences (SEBS)—including its Cooperative Extension unit—and, RBHS.

Undergraduate and graduate degrees (including the PhD), and, most likely, joint and dual degrees and academic certificates for undergraduate and graduate students, would be offered that are designed to prepare students to "think globally" and to understand the challenges facing individuals, institutions and nations in an increasingly interdependent world economy and biosphere. Students will acquire the conceptual tools, adaptive skills and experiences abroad that are necessary for having fulfilling lives and meaningful careers in a world characterized by rapid communication, transformation, risk and uncertainty.

International exchanges and experiential learning are critical: opportunities for students to study abroad, and for foreign students to study here, in a variety of ways (e.g. short term, one-year periods, perhaps, as well as two, three and four-year undergraduate, graduate and post-graduate studies) will be expected. Living/learning communities that include foreign students and faculty in each of our units, some with ties to existing entities, ought to be signature elements of the school. The education and outreach dimension might include engagement in projects abroad, parallel to those in the university's host cities at home, as the notion of a "global anchor institution" easily anticipates.

The core faculty of the school should consist of new faculty hires —at least 15 to start —whose lines will be in the new school and assigned to the primary campus, at New Brunswick, but others would be located (with dotted lines to appropriate officers, provosts or deans) at the campus units of the global school in Camden, Newark, and RBHS. The will be organized in interdisciplinary clusters (rather than departments) around the primary themes of the school (see below). Faculty in existing units —anticipating at least 20 to start —may wish to associate/affiliate with the new school for various periods of time and through various arrangements, say intercampus exchanges, which may mean part-time affiliations or full-time commitments for limited periods of time. The core is likely to grow over time, with current faculty in other units invited to become permanent members of the school and with additional hires drawn from beyond Rutgers' borders.

APPENDIX 2.1
EXTENDED PROPOSAL FOR THE RUTGERS SCHOOL OF GLOBAL AFFAIRS

A greater degree of fluidity than exists in more traditional schools is essential, for, at the heart of this enterprise is a commitment by faculty to collaboration. Provocative, deep, and energetic collaboration can occur when colleagues join together to apply new perspectives on persistent problems relating, say, to water resources, sustainability and global health, or by building on university strengths in policy, law and justice and drawing in faculty from the humanities, sciences, and security studies to launch a joint project on governance, corruption, civic stress and conflict.

The school should incorporate cutting-edge technology and best practices in digital communications to facilitate student and faculty interactions across campuses and around the world.

We suggest that the dean of the global school report to the New Brunswick chancellor as the new school's primary location will be in New Brunswick, a choice made by necessity given legislative constraints on the university. In order for the school to draw freely from each of the four units — where there are considerable strengths —and overcome the inertial forces and "siloed" activities that often impede collaboration, we understand that the presence of the school on each campus must add value to, indeed, complement the programs offered on each campus. The campus extensions of the school are to be headed by campus directors or associate deans of the global school; they will have dotted reporting lines campus provosts or other appropriate campus officials, as noted above, and have responsibilities and support, including some portion of new faculty hires.

In the alternative, the president could create a new position, an executive dean, to which the global school dean and perhaps the deans of other cross-campus schools would also report and through this executive dean, directly to the Senior Vice President for Academic Affairs. The head of GAIA, a university-wide endeavor, reports to the SVPAA. (The committee is well aware of the challenges faced by schools that exist on several campuses when reporting to a single campus chancellor).

The expectation is that there will be new resources allocated to the school and to its campus branches, including new faculty lines, that, to repeat, add strength to the primary focuses of the school and that complement the programs and projects on each campus.

The expectation is that this school will model how a unit can chart its own course and thrive within the Rutgers system, notwithstanding the aforementioned constraints, in a way that benefits all four of its constituent parts.

A school of global affairs is important for Rutgers, specifically, because it builds on what we have now and holds future promise for critical research and service work and provides essential opportunities for students. Given our geographical location, in four cities on the east coast, moreover, it makes good sense. Rutgers is well positioned, given our present assets, in size and scope, to launch this new unit and, in time, to play a significantly greater role in tackling problems ranging from security to sustainability to development as the globalization of social, economic and cultural change unfolds.

We suggest that a small group—with budgetary and staff support—be given the task of building on the vision and mission sketched above. The group would need to begin identifying the school's basic requirements and begin developing a core curriculum, identifying critical units, and individual faculty, setting priorities for the first several years, engaging in public conversations to generate ideas and support, and working within the priorities and pillars of the university's strategic plans as it develops a viable plan that can be presented to the Board of Governors in a timely way. An external review and assessment would be critical to the success of this effort.

While there are schools, centers, and programs within universities that focus on global and international or diplomatic affairs, there are no comprehensive schools in our region that come close to the international school within a state, public research university that is being proposed, here, for Rutgers.

I. Platform

The proposal rests on the assumption that the school will be greater than the sum of its parts. It will serve as a platform for deep understanding of the historical, political, and cultural factors that affect global issues and for the creation of innovative knowledge on global affairs and policy drawing from the full range of the university's disciplines:

- It will facilitate, design and create educational, research and extension programs;
- It will leverage and build upon existing strengths;
- It will provide wider focus, easing and enhancing interdisciplinary undertakings by including schools, centers, units, programs and, potentially, provide for unique Big Ten Academic Alliance connections.

II. Themes of the School

While we believe that the school should be "comprehensive," at the same time we realize we can't embrace all possibilities. It's not an effective strategy, moreover, for launching a new school. Even without undertaking a complete assessment of our existing strengths--and we think that should be done by an implementation group--we do have a general idea of what direction the school should take.

We would not be recommending a school that emphasizes foreign service or diplomacy, for example, which is more traditional, but, rather, we would recommend a thematic approach, organizing school faculty, core and affiliated, on the main campus and in its participating units in Camden, Newark and RBHS, in interdisciplinary clusters (rather than departments), to engage in teaching, research and outreach in the following areas:

Global Sustainability (socio-economic development, natural resources and climate change)

This theme embraces climate change and water shortages, agricultural and food security in developing economies (e.g., economists working to improve water use efficiency, engineers developing methods for saving water and improving sanitation, energy specialists working on reconstructing the energy sector to reduce use of water with increased reliance on solar and wind power) with the intention of having constructive community impacts (such as promoting greater reliance on public transportation—to reduce air pollution—to mitigating incentives to migrate and stabilize population growth, alleviate poverty and easing cultural shifts, e.g., promoting gender equality for greater national security and stability).

Global Security (tension among nation states and global regimes and transnational actors, violence, migration and state fragility)

This theme includes a focus on policy, national polities, government accountability, leadership and citizen engagement in global issues and organizations, law and justice to promote and protect human rights and combat corruption, and a focus on the various means and methods to effect constructive change, say, enhancing the role of big cities as drivers of change or building public-private partnerships, shaping public policies and international organizations to assure greater fairness in political, legal, and economic systems and safeguarding fundamental rights (not to mention vital environmental policies and practices).

Fragility provides a frame for looking at the phenomena of social, political, ethnic and religious-based violence. In just under two decades, for example, nearly half of all people, 3.34 billion, have suffered from political violence or lived under its shadow, as a new OECD document, States of Fragility, reports. Twenty-two percent of the world's people live in countries where human development is hampered by fragility and violence. Fragile contexts, especially those where governments are ineffective and social contracts have broken down, drive much of the violence and lead to refugee flight, pandemic disease and other catastrophes. Understanding and measuring fragility is vital to U.S. and global policies that aim to prevent crises. Rutgers could have a significant role on this side of the equation and in devising policies and plans to mitigate fragility's effects.

This theme of fragility would provide an excellent opportunity for integrating Rutgers' strength in social science, public policy and law with an emphasis on the humanities, one that incorporates deep understanding of the histories and cultures that shape violence.

Global Health (human development, pandemic disease, nutrition, food safety and security, healthcare delivery models and health policy and advocacy)

Multiple areas of strength at Rutgers could engage in work in this area: new initiatives as part of the developing Global Health Institute at RBHS and the active global educational and research efforts of various RBHS institutes and schools (including the School of Public Health, both medical schools, and the Cancer Institute of New Jersey), health care delivery and policy (e.g., the Institute for Health, Health Care Policy, and Aging Research and developing activities in value based-delivery of medical care at RBHS), nutrition and health (Institute for Food, Nutrition and Health), ethics and moral philosophy, economics, environmental

research, practice and policy applications (such as that already being performed by the EOHSI and the SPH), political science, medical anthropology and sociology (widely represented throughout the University, including in the Bloustein School and in the Institute for Health), communication of health information (with new expertise in the School of Communication and Information) and social work, among areas of Rutgers expertise.

Community impacts from this work might include improvements in interventions to reduce the human, economic and societal impacts of pandemic disease (an area of focus of the new Director of the Global Health Institute), dietary interventions and education to address the emerging epidemics of obesity and diabetes in the developing world, novel approaches to infection-related malignancies, and aggressive approaches to reduce the impact of environmental toxicants and of global climate change on incidence of disease across the world. Other areas of impact could also include new models of preventive medicine and health care delivery, adapted to highly variable local conditions, and more fundamental research to identify nutraceuticals and botanical products that could broadly impact human health across multiple geographical regions.

These critical emphases on health, sustainability and security would manifest in teaching and research, of course, and, because Rutgers is a land grant institution, would also be seen in outreach, bringing researchers to partner with people to improve the dignity, quality and duration of their lives.

Global Economics and Finance (capital mobility, data gathering and analysis, technology transfer, communications innovations, global markets, international development, social and economic entrepreneurship in developing societies)

This theme is likely to embrace business, culture, and the global impact of technologies—themes that cut across all areas outlined above. Under the umbrella of technology there is banking, finance, commerce, trade, communications and media, cyber financial crime, security—including political, financial, social cyber war. Relating to the other three themes, this area could embrace research, monitoring and evaluating data in global health (e.g., availability of surgery), social enterprises, social media, communications and marketing, as well as technology in global health. Design thinking would surely have a place here. Other foci: Education; environment, energy and agriculture; film, photography, art and global health.

III. Opportunities for Students

Designed to create career opportunities for students as well as respond to increasing demand and critical need for professionals and scholars with a deep understanding of globalization's social, political and economic impacts, a new, degree-granting school, offering well-developed, cross-cultural preparation for study, research and hands-on extension opportunities abroad, language and culture immersion, will add luster to the Rutgers brand. We anticipate new paradigms for learning (e.g., clinics built around experiential learning and research). The intention would be to have students understand that globalization is a process and a phenomenon that they need to experience directly, that they will need to adapt to, but more importantly, as thoughtful citizens, learn to embrace and respond to.

Undergraduate and graduate degrees (including the PhD), and, most likely, joint and dual degrees and academic certificates for undergraduate and graduate students, would be offered that are designed to prepare students to "think globally" and to understand the challenges facing individuals, institutions and nations in an increasingly interdependent world economy and biosphere.

An undergraduate degree, a BA in Global Affairs, having a required core of courses for all students, might offer several concentrated areas of study from which students could choose. Students should be able to draw from all university offerings but should expect to take at least half of their coursework in the global school.

All students would be expected to have a "global experience." Following the Penn Global model, for example, students would have opportunities to gain experience by living and working in other countries—a "global experience" that contributes to their understanding of the world.

An MA in Global Affairs would have, perhaps, 4 or 5 concentrations at most. The PhD would be more limited. Likely areas: Global Sustainability, Global Justice, World Culture and Society, Global Security and Global Health.

If a Master's degree in Global Affairs is offered, a concentration in sustainable global development courses might include the following (some drawn from the Keough School at Notre Dame): Econometrics; Methods of Analysis; Experimental Development Designs; Politics and Economics of Development; Managing Sustainable Development; Natural Resources and Sustainability; Broadening Metropolitan Economies; Gender and Development; Research Methods for Field Work in the Developing World; The History and Theory of Globalization in Latin America, in Africa, in Asia; Democracy and Citizenship in the Developing World; International Organizations and Global Challenges; Theories of Economic Development; Theories of Political Change; Migration in a Global Context; Systems Thinking and Human-Centered Design; Human rights and Democratic Institutions; Peace and Justice in Developing Countries; International Cooperation and Peace Studies; and so on.

Students in the School of Global Affairs will have the advantage of living arrangements, courses and engaged learning here and abroad that will bring genuine diversity to their college experience. Interactions between and among people from different backgrounds, different experiences and different ways of looking at the world will take place in the academic community the School aspires to and will be made more meaningful as the school organizes to challenge ingrained assumptions, disrupt entrenched thinking and broaden frames of reference. In this way, we imagine the global school will provide an optimal learning environment for students that, we expect, will become thoughtful, constructively engaged citizens of the world.

We recommend that the implementation committee undertake an effort to identify careers and professional as well as research opportunities that link to areas of concentrations in the global school. We anticipate that students would be equipped to engage in designing and assisting the implementation of programs in NGOs and institutions that promote economic development and environmental sustainability, for example, that advance human rights and cross-cultural cooperation and that enable sustainable health outcomes in developing countries. We also expect this new School to establish Rutgers as a leading center in this emerging field, along with such institutions as Yale's Jackson Institute for Global Studies, Notre Dame's Keough School of Global Affairs, and Berkeley's new degree programs in Global Studies.

IV. Critical Elements of the New School

There are a significant number of centers and institutes, for example, and a critical number of faculty members who work in areas and teach in degree programs that are likely to be embraced by the new school. Many of these units and individuals are currently associated with Rutgers GAIA (http://global.rutgers.edu/about/about-gaia-centers) and include the major Division on Global Affairs (http://dga.rutgers.edu) on the Newark campus. As mentioned previously, SEBS is a significant presence on the Rutgers global platform already. And Camden has pioneered an MPA International Development track that was the nation's first Peace Corps MA program (https://dppa.camden.rutgers.edu/degrees/mpa/mpa-specializations/ipsd/); Camden also offers a BA in World Languages and Literature (previously a BA in Global Studies) and is contemplating a Ph.D. in Global Humanities. Strengths in the School of Arts and Sciences (SAS) in New Brunswick in languages, literature and culture as well as Area Studies and regional centers (Center for African Studies; Center for Latin American Studies; Centers for Middle Eastern and Asian Studies) are likely to be important to the new school. A brief sampling of other undergraduate programs that may be relevant to the school include, for example, the following: international relations (Political Science, SAS); also, an MA program in United Nations and Global Policy Studies offered by that department; international and global studies (Geography, SAS); and, management and global business (Rutgers Business School, also offered as an MBA in Global Business).

Given GAIA's activities and achievements, from setting campus-wide international initiatives in motion, providing support and services, launching collaborative projects and strategic partnerships around the world, not to mention expanding opportunities for students and faculty for international study and research, there is, in place, a partial foundation for the Rutgers School of Global Affairs.

The group that takes on the responsibility for developing a working plan for the school will want to undertake a careful and comprehensive survey of the potential participants.

V. Areas for Concentrated Attention

In his charge to the AUO Committee, President Barchi asks us to look to "integrating existing units into new collaborative partnerships that are more responsive to today's research and educational needs."

The School of Global Affairs and the idea of a Lyceum--introduced in this section--respond directly to that charge. The global school will have a primary focus and thematic framework — to be developed in the next phase of planning —but it should also have the capacity to respond, in innovative ways, to new global challenges.

We envision the school building on Rutgers' strengths and capacities and having the maximum flexibility to respond to new directions in scholarship and to emerging areas of need (and for which Rutgers will have the critical mass of faculty and essential resources to have an impact). As noted, the school is expected to attract faculty from within the university without removing them from their departments, units or schools and to hire additional faculty to help form a core for the school, expanding, as needed, to meet needs and priorities.

A biennial theme to engage a multiplicity of actors in collaborative, cross-disciplinary work that is seen to be critical to global engagement has been established by GAIA. Past themes have included global health, technologies without borders, and global urbanism. The theme provides a framework to explore, discuss, and analyze critical global issues in informal and formal conversations and provides a focus for events that bring outside scholars, policymakers, activists and artists for lectures, film screenings, panel discussions or student assignments.

We think the School of Global Affairs should take a more ambitious step.

In keeping with its vision as a "global anchor institution," committed to practical engagement and service to address global challenges, the school ought to have an ongoing, highly visible initiative that takes a specific problem and tries to find new ways to examine and address it — a problem that the collective of faculty and students under the umbrella of the global school believe the school can have an impact on. We're calling it The Rutgers Lyceum for Global Issues (RLGI).

Much like Harvard's Tobin Project (http://www.tobinproject.org), a model that catalyzes transformative social science research and identifies significant problems and tries to find new ways to look at persistent problems, and Bass Connections at Duke (https://bassconnections.duke.edu), another take on the thematic approach, the Rutgers Lyceum would identify critical global issues that demand interdisciplinary analysis and align with Rutgers' strategic priorities. Its leaders will form teams of faculty and students, both undergraduate and graduate, in an effort to address one or more of these issues in single or multi-year collaborative research efforts.

Since the School of Global Affairs cuts across Rutgers' units, the Lyceum would similarly be open to students and faculty from the entire Rutgers system. We envision a lead team representing all four units, partnering with teams in Camden, Newark, New Brunswick and Piscataway, and RBHS, with the results being presented at an annual or bi-annual Lyceum exposition. Rather than ending with the exposition, though, the intention is to stimulate more lasting collaborations that may lead, in some cases, to major research projects, new concentrations for study, applied work and, perhaps, joint work with other universities as well as private partnerships. We envision the results of these collaborative projects to be archived as an open source and lead, perhaps, to new areas for emphasis — teaching and research — in the global school.

The Lyceum would operate under the auspices of the School of Global Affairs and be governed by a faculty and student board to vet projects and review applications by faculty and students.

VI. Marketing Advantages

There are considerable marketing advantages to a global academic and policy entity given the significant number of domains affected by globalization. A new school will directly enroll students, positioning Rutgers to capture part of the growing global education market sought in the U.S. and abroad; it is likely to attract resources; it can provide internships and placements that may lead to permanent positions; and, it can build on existing and create new partnerships, local/domestic and global. A close partnership with the Consortium of Global Studies, a nineteen-member network of universities around the world, for example, might allow for exchange programs for students and faculty and even joint curriculum development. A new school can utilize faculty in, of, and affiliated with units within Rutgers—and may eventually reach beyond our borders—to draw from a base of quality, diversity and interest. The school is likely to be a magnet for new faculty, moreover, given the depth, breadth, and the comprehensive character of the endeavor.

The school could be a "profit center" for Rutgers as well, providing training and consulting services relating to global and national problems and, likely, offering post baccalaureate certificates. One model is Harvard University's Advanced Leadership Initiative (advancedleadership.harvard.edu) that is led by a group of faculty from across its professional schools. Its aim is "to educate and deploy a force of experienced, innovative leaders who want to address challenging global and national problems." There are other models, of course, some of which are already in place at Rutgers.

It might look to create non-profit clinics or studios as well that would be designed to offer students professional experience in capstone projects. Supervised by faculty, these clinics would take on "clients" and provide them with services, thus building networks of professional contacts that may be useful for internships and, eventually, job placements. Short of those outcomes, though, the professional experience and the service provided are in keeping with the tradition of the land-grant university. Rutgers has a variety of its own models to draw from, including initiatives to help local communities deal with conflicts that arise in implementing development projects and providing training to people at all levels in approaches to decision-making that are based on cooperative and collaborative mechanisms.

The school might pioneer in creating "incubators," work sites, where, say, comprehensive programs of resilient public health systems (preventative and curative health) in stressed locales are tested. Such endeavors would likely entail addressing physical infrastructure needs in areas like water and sanitation in post-conflict/disaster areas but also exploring the social infrastructure needs in such a context, bringing together SEBS, engineering, public health, planning and policy and language and culture studies.

VII. Resources

Beyond tuition revenue and funds generated by training or consulting, there are additional sources of funds, primarily for research and project grants and contracts and for faculty exchanges and student support. The group that takes on the next steps will want to take a hard look at the prospects for financial support from these sources.

A perusal of potential sources suggests quite strongly that what we are proposing, particularly given its interdisciplinary approach and its emphasis on engagement, complements current philanthropic expectations and areas of emphases.

The school should reasonably expect to continue to receive substantial support from the United States Agency for International Development, for example, particularly relating to engagement and innovation in development projects, and from the National Institutes of Health and the National Science Foundation, the latter, particularly given its recent push toward collaboration in research, a prospect made more promising in the new school. The Ford Foundation's commitment to concentrate its resources on inequality suggests promising opportunities as well as does the emphasis in the Clinton Foundation and Initiative on innovative solutions to pressing worldwide problems.

The "Grand Challenges for the 21st Century" laid out by President Obama in 2013 to harness science, technology, and innovation to solve important national or global problems offers further incentive since government agencies, private foundations and corporations are joining in the effort. The Grand Challenges include tackling important problems related to energy, health, education and the environment, national security and global development, helping create the industries and jobs of the future, promoting public and private partnerships in those pursuits while expanding the frontiers of human knowledge about ourselves and the world around us.

Among others involved in the Grand Challenges project, the Gates Foundation has made commitments to provide grants on global health and development challenges (http://gcgh.grandchallenges.org).

The Global University Innovation Fund, located within the U.S. State Department, is another prospect given its intention to "support a new model of multilateral university exchange and academic collaboration with key partners and countries in transition on topics of shared global importance." Funds that support graduate students studying abroad—the Fulbright-Hays program, for example—are vital as are those that support undergraduates such as the Gilman International Scholarship Program.

In addition, there are new approaches that rely heavily on technology such as crowd-funding and impact-

sourcing that are likely to be a part of the picture in the years ahead.

Private corporations have become visible players on the global education front, not least reflecting their own global reach and interest in global affairs and policy, but also given their direct interest in employing people with global perspectives, training and experience.

VIII. Models of Other Schools, At Home and Abroad

The field of global affairs is moving rapidly. This fast-paced evolution has already undermined the competitive edge that Rutgers had previously established for itself by being one of the first universities in the U.S. to create a Master of Science (MS) in Global Affairs, in the early 2000s, and offering one of the very few PhDs in Global Affairs in the country. The university-wide effort, GAIA, was created as late as 2011.

To provide perspective, what follows are links to, and, in a few cases, brief commentaries on, several of the schools, programs, and units that focus on global or international affairs:

- Berkeley is creating a "global campus" in Richmond Bay, California, that envisions "a new form of international hub, where an exclusive group of some of the world's leading universities and high-tech companies will work side by side… in a campus setting. We envision a collaboration not just among disciplines but across global institutions on topics like climate science, energy policy, data science, artificial intelligence, medicine, global health and inequality, urban studies, museum studies and more." Its educational mission, presently in the design stage, focuses on graduate education with an advanced degree in Global Studies: http://chancellor.berkeley.edu/berkeley-global-campus-richmond-bay
- Brown University: Office of global programs: https://www.brown.edu/about/administration/global-engagement/
- Columbia University (SIPA) School of International and Public Affairs: https://sipa.columbia.edu/academics/programs/executive-master-of-public-administration?utm_source=Google&utm_medium=CPC&utm_campaign=Columbia%20EMPA A core faculty, but also drawing heavily from the university's other schools for faculty; strives to integrate social sciences into the study of global issues; SIPA generates significant income.
- Fletcher School of Law and Diplomacy at Tufts University: http://fletcher.tufts.edu/Academic/Joint-and-Dual-Programs
- Georgetown: School of Foreign Service: http://sfs.georgetown.edu
- George Mason University's School of Policy, Government and International Affairs http://spgia.gmu.edu and Center for Global Affairs: http://cgs.gmu.edu/about/about-cgs
- Johns Hopkins University: Multiple programs affiliated with schools http://web.jhu.edu/aroundtheworld/academics.html and its School of Advanced International Studies: http://www.sais-jhu.edu/
- Indiana: School of Global and International Studies: http://sgis.indiana.edu and http://sgis.indiana.edu/academics/index.shtml
- Michigan State: Office of International Studies and Programs: http://www.isp.msu.edu/about/about-isp/ and the Global Impact Initiative: http://research.msu.edu/global-impact/

  The Global Impact Initiative at Michigan State invests in areas that are likely to have the greatest global impact; it has identified several areas of research--developed from nearly 90 proposals submitted by MSU faculty members--and has set aside $17.5 million for the recruitment of 100 new faculty members in promising areas of research, areas of traditional strengths for MSU, such as plant science, engineering, physical science and STEM education, as well as areas that offer opportunities for expansion, such as genomics, cyber-security, computational science and precision medicine. Michigan State intends to use its resources to recruit new researchers from all over the world to focus on the challenges facing human civilization where it is likely to have the greatest impact.

- Northwestern: International Studies Program within the Weinberg College of Arts and Sciences: http://www.internationalstudies.northwestern.edu
- Notre Dame is creating its first new school in just under a century, the Keough School of Global Affairs: http://keough.nd.edu
- New York University: Global programs: https://www.nyu.edu/about/leadership-university-administration/office-of-the-president/office-of-the-provost/global-programs.html
- Stony Brook University (SUNY): Office of International Academic Programs and Services (IAPS) - Staff of 22, $7 million budget; seeks to expand SUNY's "global engagement." Somewhat like GAIA: http://www.

stonybrook.edu/commcms/iaps/

There are schools with significant standing abroad that constitute part of the environment in which the Rutgers School of Global Affairs would operate. They include the following in France and the U.K., schools that are roughly equivalent to the Kennedy School at Harvard. They focus on international affairs and global policy.

- London School of Economic and Political Science: http://www.lse.ac.uk/home.aspx
- Paris School of International Affairs: http://www.sciencespo.fr/psia/

And, then, there are three others, created within the last ten years, that could be considered competitors and/or partners, in Europe and in Asia:

- Central European University in Budapest is an up-and-coming contender: http://www.ceu.edu
- Hertie School of Governance in Berlin: https://www.hertie-school.org/home/
- Lee Kuan Yew School of Public Policy in Singapore: http://lkyspp.nus.edu.sg

On the North American continent, there is the well-regarded McGill University in Canada: https://www.mcgill.ca/research/international

A Final Note: The Lester Brown School of Global Affairs at Rutgers University

It's presumptuous, of course, to suggest a name for a school that has yet to begin on its path to becoming a part of Rutgers University, but there is a reason to think about it as the school takes shape. Consider the possibility of naming our global school for a rare global citizen: Lester Brown.

Lester Brown (http://www.earth-policy.org/about_epi/C32), a Rutgers graduate (1955), grew up on a farm in New Jersey, a farm with no running water or electricity. He was the first in his family to graduate from elementary school! He spent six months living in the villages of India as part of a farm youth exchange program. He joined the U.S. Department of Agriculture's Foreign Agricultural Service where he played a pivotal role in helping India combat famine a few years later. He helped to create the Worldwatch Institute (http://www.worldwatch.org), a leading source of global environmental statistics and trends. He created the Earth Policy Institute (http://www.earth-policy.org) after leaving Worldwatch. (Its website is now managed/maintained by SEBS.)

He is the author or co-author of fifty-four books, including the 2013 memoir, "Breaking New Ground," and his book, "The Great Transition: Shifting from Fossil Fuels to Solar and Wind Energy," published in April 2015.

He has received multiple awards, including 26 honorary degrees, the U.N.'s Environmental Prize, a MacArthur fellowship, and, more recently, the Presidential Medal of Italy and was appointed an honorary member of the Chinese Academy of Sciences. The Library of Congress is storing his personal papers.

At 81, Brown is active, seeking world awareness of and action on the challenges to the globe, those challenges that the school will seek to address. How do we prepare for a world with less water? How do we make the critical transition in energy? How do we force a restructuring of the energy economy?

Brown never wanted to specialize when he was at Rutgers, he says, or later, when he was in graduate school at Maryland and Harvard. He wanted to understand world agriculture.

Of his time in India, Brown says it encouraged him to create a global perspective:

"It's difficult to measure all the impacts that living half a year in Indian villages had, but it clearly gave me a sense of the world."

The School of Global Affairs will seek to educate students so that they understand globalization as a process that they will need to adapt to, but more importantly, learn to manage and shape; they may better appreciate the roots of that learning, at home and abroad, in the life and objectives of the namesake of their school, global citizen Lester Brown.

APPENDIX 2: EXTENDED RECOMMENDED PROPOSALS

APPENDIX 2.2: EXTENDED PROPOSAL FOR THE NEW BRUNSWICK GATEWAY

We propose a fundamental reorganization of the early years of undergraduate education at Rutgers-NB to create a single new administrative unit named the New Brunswick Gateway. This new administrative structure would centralize admissions, advising and general education requirements for all first-year and transfer students. The central goal of the reorganization would be to create a common and engaging educational experience for all new Rutgers students as they transition to learning at the university level. It is our belief that the New Brunswick Gateway will 1) present Rutgers as a strong and single cohesive system to the applicant, 2) provide an educational experience that emphasizes the values of learning to the new student, and 3) bond each student more tightly to the university and their peers, thereby creating a lifelong relationship with Rutgers community.

We are proposing a fundamental restructuring of undergraduate education at Rutgers-New Brunswick that is intended to continue and complete the work begun by the Transformation of Undergraduate Education (2004-07). The proposed structure will combine admissions, advising and general education requirements, which are now separate in the NB schools, into a single, new administrative and academic unit (but not a new school; it is not envisioned that this unit will grant degrees). As an administrative change, the creation of the NB Gateway represents an attempt to make the undergraduate experience at RU-NB (particularly the initial stages) more rational, accessible and attractive. As an academic reorganization, it deliberately conceptualizes undergraduate life as a bridge between domestic-centered life and a larger, voluntary community which our students first encounter in college and remain participants in throughout their adult lives. The RU-NB Gateway experience should provide a gateway to reposition undergraduate life at that crucial intersection and help our students become creative, responsible and ambitious participants in lifelong learning, as they begin to learn the value of evidence and the limits of knowledge. In line with the strategic planning and the responsibilities of higher education, our new structure promises to reduce the huge divide between elite and public education: we are seeking to offer an education that goes beyond the acquisition of discrete skills, beyond the first steps towards establishing a career, towards a process that integrates their professional paths, learning and civic participation.

As part of the process of developing this proposal, we examined the structures of some of our closest peer institutions with a particular focus on examining the path taken by students from high school applicant to declared major. We focused on public, land grant institutions that are members of both the Big Ten Academic Alliance and AAU and are of a similar size to Rutgers-NB, with an undergraduate enrollment within 10% of the enrollment of Rutgers. This identified a set of 6 Universities for comparison, listed together with Rutgers-NB in the table below. We observed a striking organizing principle; the greater the number of degree granting schools within a university the more likely the university is to rely upon some kind of non-degree granting general education unit to provide the transition between high school and enrollment in a major.

	Gen Ed Division*	Number of UG Schools	Accepted to Major from HS	Accepted to DGS*** from HS
Michigan	Yes	14	No	No****
Rutgers-NB	No	12	No	Yes
Penn State	Yes	12	Optional	Optional
Purdue	Yes	11	Optional	Optional
Maryland	Yes	10	Optional	Optional
Illinois	Yes	9	Yes	Yes*****
Wisconsin	No**	9	No	Yes

*A non-degree granting but distinct enrolling unit of the University
**Cross-College Advising Service to help students transition schools/majors
***Degree Granting School, in contrast to the Gen Ed Division
****Three small residential Colleges do directly admit HS students
*****Students must apply to a specific major, but may be rejected by that school but admitted into the Division of General Studies

APPENDIX 2.2
EXTENDED PROPOSAL FOR THE NEW BRUNSWICK GATEWAY

At Michigan, the only University with more undergraduate degree granting schools (UDGS) than Rutgers-NB, initial enrollment is in the Undergraduate University Division with a stated major 'preference', but students do not declare a major and move to a degree granting unit until they reach 56 credits. (Less than 10% of Michigan students alternatively enroll in one of three small residential colleges that aim to provide a small school experience). Penn State has the same number of UDGS as Rutgers-NB; here enrollment in the Division of Undergraduate Studies is optional but it is the largest enrolling unit for first-year students. Other enrollment options for high school students include applying directly to a specific major (e.g. portfolio based majors, nursing, combined premed-medical programs) or enrolling in a specific college but deciding on a major later. Purdue and Maryland, each with somewhat fewer UDGS than Rutgers-NB, both have some kind of general education unit into which students may optionally initially enroll; enrollment directly into a degree granting school is also possible. Illinois and Wisconsin each have 25% fewer UDGS than Rutgers-NB. When applying to Illinois, students must pick a major (and a back-up major) with three possible admission decision outcomes; they may be admitted into the school of their major, they may be rejected from all of Illinois, or they may be rejected by the school of their major but accepted into the Division of General Studies. Wisconsin appears to have the most similar organization to Rutgers, with no general education division, a mix of schools that admit directly from high school and those that take only upperclassmen that entered through other schools, and no acceptance directly into a major from high school. Unlike Rutgers, however, Wisconsin has a robust Cross-College Advising Service specifically tasked with supporting students who are considering a change in major or school.

The increased reliance in Universities with more undergraduate degree-granting schools on a non-degree granting general education unit to provide a transitional structure between high school and enrollment in a major seems sensible. Transfers between schools within a University are seldom as effortless as one might wish; therefore, Universities with many schools can protect students from the hardships of negotiating transfers by delaying their choice of school until later in their collegiate careers. For Universities with few schools, it is easier for a student to select the most appropriate school directly from high school as the options are limited. Rutgers is an outlier among our peers for the lack of a general education unit despite our large number of schools. While one could consider a significant reduction in the number of schools at Rutgers-NB as a 'solution' to this situation, we instead focused on the creation of a general education unit as the superior option, as this would both preserve the rich history of Rutgers-NB and create novel educational opportunities for Rutgers undergraduates.

Under our proposal, students would initially enroll in the NB Gateway, where they would complete a common year experience. Students would remain in the Gateway until they had completed the prerequisites to declare a specific major, at that time they would enroll in the specific school offering that major. Each major would be offered by a single school, although similar majors could certainly exist within different schools (but should be carefully named to accurately highlight curricular differences). It is anticipated that students would be in the Gateway for no more than two years (that can be a formal limit). Transfer students could also be initially accepted by and enrolled into the Gateway; this would allow for better consistency of requirements for incoming transfer student credentials. It is anticipated that transfer students would generally spend less time in the Gateway before enrolling in a specific school; for some it could be essentially just a moment. Enrollment in a school would not end a student's affiliation with the Gateway, as the Gateway would be responsible for the administration of the NB-wide "Core". All students, including transfers, might continue to take courses in the Gateway even after enrolling within a specific school. For transfer students, these courses would include a common year sequence.

At time of initial application to Rutgers (from HS or as a transfer), students could apply to just the Gateway or could apply to both the Gateway and a specific school/program of interest (e.g. Pharmacy, Engineering, Business). Students would receive an accept or reject from the Gateway; for those accepted to the Gateway, they would also receive an accept or reject from the specific school. This would guarantee them a spot in a specific program pending successful completion of the academic prerequisites as determined by the program, a feature we considered critical to maintain Rutgers competitiveness for top students for some of our professional programs. Students not receiving this program acceptance upon initial application to Rutgers would still be able to apply to the program upon completion of the academic prerequisites, similar to the way students currently have the possibility of transferring into these programs from other schools; however, there should be transparency about the probability of success of acceptance at a later date.

The Gateway would also serve as a place where faculty from across the NB schools could meet and work

together on our common undergraduate educational mission. There would be an emphasis on all faculty and administrators participating in some way in Gateway teaching or advising activities. Given the range of opportunities (full courses, mini courses, general advising, career advising, etc.) everyone should be able to find a place to contribute to this core mission of our University. This broad faculty and administrator participation in the Gateway could add a unique touch to our program that would distinguish it from the general education units of our peers, promote a stronger sense of connection in the students to the faculty and administration, and keep all faculty and administrators in closer touch with the evolving realities of the challenges our undergraduates face.

The Gateway would also serve as the home for a pilot program in Self-Directed Education. The Rutgers Self-Directed Education Program (SDEP) will have as its mission the education of highly motivated and self-directed students who assume responsibility for the design and conduct of their educational program, in conjunction with a strong individualized mentoring/academic advising program. Please see Appendix 2.2-A for the full proposal for the SDEP.

Major Components of the Gateway

a. Admissions: A single, unified admissions portal for all RU-NB schools. Mason Gross would continue to have a supplemental application procedure. Students could optionally indicate additional application to a specific school/program such as pharmacy or engineering.

b. Advising: General advising and area advising (i.e. everything but major advising), along with career services and scheduling. Additional advising resources will be critical to properly staff this function of the Gateway. Creative uses of administrators might help with staffing, such as some elements of career advising.

c. Common Year Experience: Thematically focused first semester general course, ideally taught in small sections, followed by a second semester of three one-credit small, mini-courses that would relate general and specific and also provide a disciplinary introduction. One of the courses should be hands-on or practically-oriented. There would be an emphasis on getting a very wide range of faculty members to participate in teaching these mini-courses. As these courses would be small, short (1/3 of a semester), and could take a diversity of forms, the time commitment for a faculty member to teach one of these would be light. The hope is that the vast majority of our faculty currently involved in undergraduate education would teach one of these courses, providing all of our first-year students with the opportunity for intimate educational experiences with several faculty members. Faculty members from our graduate and professional schools would also be encouraged to teach mini-courses.

d. General and Area Requirements: The Gateway would have the authority to contract with existing schools to staff general, introductory, and foundational courses. The Gateway would not have a faculty of its own, but rather serve as an administrative structure to find the best introductory instructional offerings from across Rutgers NB and offer them to all students. The Gateway would be responsible for administering the Core Curriculum or whatever replaces it (the requirements of the Core itself would be developed in concert with all the NB Schools that educate undergraduates). This Core would be universal among NB Schools. The Gateway would be the entity charged with certifying courses for the NB-wide Core. A specific school could have additional general (not just major-specific) graduation requirements, but these should be requirements that a student could complete in two years or less.

The articulation of a number of existing undergraduate programs with the Gateway needs to be considered. The primary motivating goal of additional reorganizations should be to enhance the undergraduate experience by providing improved coordination between important enrichment programs. Administrative 'turf wars' that detract from student access to a cohesive undergraduate experience should be eliminated. Programs such as the Honors Colleges and Programs, the Douglass Residential College, the Aresty Program, Byrne Seminars, and the proposed Rutgers Program for Self-Directed Education (see Appendix 2.2-A) should all be closely coordinated with the Gateway or incorporated into it. Likewise, the relationship between the Gateway and the proposed University College — New Brunswick would need to be thoughtfully defined to best serve the needs of non-traditional students. While primarily envisioned as a New Brunswick program, the Gateway should also explore coordination with undergraduate activities on the Camden and Newark Campuses. It is our hope that by starting with the best general education ideas from our peers and adding a number of novel

components, the Rutgers NB Gateway will emerge as a distinctive educational innovation that will enhance the undergraduate learning experience, strengthen the Rutgers brand, and foster a greater sense of community among students, faculty, and staff.

Financial Considerations

A full, detailed analysis of the financial implications of the Gateway is beyond the scope of this report. Nonetheless, some preliminary analyses of predicted impacts merit discussion. The financial impacts of this proposal will result from several aspects of the Gateway:

New costs associated with the Gateway. While the Gateway is envisioned as primarily using existing staff and resources, there will undoubtedly be the need for some modest new administrative support. It would be appropriate to cover these costs through undergraduate headcount-based RCM cost pool charges to units with students receiving education and advising through the Gateway.

Shifts of existing expenses. Key to the success of undergraduate experiences in the Gateway will be excellent advising. The Gateway proposes to centralize general (not major-specific advising) advising into one unit. While this may provide an opportunity for some efficiency, Rutgers advising is globally extremely understaffed. A 2011 national survey of academic advising reported that the median undergraduate caseload for a full-time professional advisor at public doctorate institutions was 285; the number at Rutgers is close to 1000. While enhanced digital advising platforms may somewhat reduce the number of new advisors needed, it nonetheless appears that the Gateway will require a significant investment of strategic funds to bring advising to the needed levels. It is envisioned that existing professional general advising staffs will move to the Gateway; this will remove the personnel expenses associated with those staff from the individual schools. An expanded advising staff would be supported through a combination of strategic funds and a cost pool charge based on undergraduate headcount and anticipated advising usage (e.g., the schools that direct admit student from high school are expected to use less general advising services than schools that admit students from the Gateway). As students in the Gateway will have no enrolling school, a mechanism is also needed to cover student headcount-based RCM cost pool charges for these students. We propose that a fraction (likely in the range of 15-20%) of the tuition that otherwise would be returned to the instructional unit delivering courses to Gateway students be held back to cover these RCM cost pool charges, although the actual implementation mechanism might be transferring all the tuition revenue to the instructional unit and then increasing the RCM charges to that unit to recapture this fraction.

Shifts of tuition revenue. Another area of potential change is how the Gateway will modify the flow of tuition funds. The fundamental change stems from the classification of student in the Gateway as not having an enrolling school. Therefore, for students in the Gateway, all of their tuition revenue will be returned to the instructional unit (although a fraction would be needed to cover student headcount-based RCM cost pool charges). For most schools, the impact of this is actually expected to be minimal. Under the Gateway, the School of Engineering, the Business School, the Ernest Mario School of Pharmacy, the School of Nursing, and Mason Gross would continue to admit students directly from high school, as they currently do. Therefore, even though these students would be taking coursework overseen by the Gateway (New Brunswick core and general introductory courses), their tuition would be subject to the current instructional vs. enrolling division, so there would be no change to the flow of funds for these students. Under the Gateway, the School of Communication and Information, the School of Management and Labor Relations, the Edward J. Bloustein School of Planning and Public Policy, and the School of Social Work would continue to admit Rutgers students after they have completed their general education coursework (they would continue to directly admit upperclassmen transfer students as well). For these schools, the administrative difference would be that they would be accepting students from the Gateway instead of from the School of Arts and Sciences (SAS) or the School of Environmental and Biological Sciences (SEBS), however there would be minimal financial difference, as there is no enrolling tuition spilt to SAS or SEBS for students pursuing courses of study within these four schools once they reach 56 credits. So, as now, these schools would receive no enrolling tuition revenue from students prior to them moving from the Gateway into one of these schools; once students moved into one of these schools, they would receive the full enrolling unit tuition share. As this move is anticipated to typically happen after the end of two years in the Gateway, approximately the time at which students would be reaching the 56 credit mark, the flow of tuition revenue to these schools should be minimally changed. There would, in actuality, be financial benefits to many of these schools from the Gateway, as they would receive an increased amount of instructional revenue for any courses they teach to Gateway students.

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The largest fiscal impact of the Gateway would be to SAS and SEBS, but the implementation could minimize the overall effects. The Gateway would have no faculty but would oversee and coordinate the offerings of introductory and foundational courses taught by the Schools. As now, these courses would continue to be taught by faculty from SAS and SEBS. Since most students in the Gateway (except those from Engineering, Business, Pharmacy, Nursing, and Mason Gross) have no enrolling school, all tuition from these students would flow to the unit providing the instruction for specific courses (with a fraction of this tuition revenue used to cover student headcount-based RCM charges). Previously, these students would have been enrolled in either SAS or SEBS, with those Schools together collecting both the instructional and enrolling tuition share but also paying the full headcount-based RCM cost pool charges for these students. An initial analysis of freshmen enrollment data indicate that the final net distribution of tuition dollars to SAS and SEBS from students in the Gateway would differ from the current situation (with a net increase to SAS and a net decrease to SEBS), however, this could be easily adjusted by altering the participation of SEBS faculty in foundational courses (e.g., increasing SEBS participation in teaching in General Biology alone could fully offset this shift). Another financial change under the Gateway would be how tuition from upperclassmen in SAS and SEBS is treated. Currently, for SEBS students who are majoring in a subject offered by SAS, the 56 credit mark does not trigger the shift of all enrolling tuition flowing to SAS (although it does for SAS students majoring in certain subjects offered by SEBS). This would change under the Gateway, as each major would be available only through a single school. Currently, there are a larger number of SEBS students pursuing a major offered by SAS than SAS students pursuing a major offered by SEBS, although recent elimination by SEBS of some of the SAS majors available to SEBS students has reduced this imbalance. Nonetheless, based on current enrollment numbers, the immediate impact of this change would lead to more tuition revenue for SAS and less for SEBS. The impact of this change could be offset by the development of new SEBS majors that would sharpen the distinctions between the educational missions of SAS and SEBS and attract those students with academic interests fundamentally better aligned with SEBS. Enhancing the distinct identities of the Rutgers New Brunswick schools would be an added positive outcome of the Gateway.

In sum, the implementation of the Gateway proposal, while complex, is compatible with the RCM framework. Several changes will be required in accounting of both revenue and expenses. The net financial change to most schools is expected to be minimal. The most significant financial impacts will be to SAS and SEBS, with an anticipated net increase of revenue to SAS and a decrease to SEBS. This shift could be easily mitigated, however, through relatively slight changes in instructional workloads and curricular offerings. Any changes to school revenues also could be phased in over several years to allow schools time to better respond to these changes.

References
1. http://www.nacada.ksu.edu/Portals/0/Clearinghouse/documents/Chapter%206%20-%20Professional%20Advisor%20Load%20-%20FINAL.pdf

APPENDIX 2: EXTENDED RECOMMENDED PROPOSALS

APPENDIX 2.2-A: EXTENDED PROPOSAL FOR THE RUTGERS SELF-DIRECTED EDUCATION PROGRAM

APPENDIX 2.2-A
EXTENDED PROPOSAL FOR THE RUTGERS SELF-DIRECTED EDUCATION PROGRAM

We propose that the New Brunswick Gateway serve as the home for a pilot program in Self-Directed Education. The Rutgers Self-Directed Education Program (SDEP) will have as its mission, the education of highly motivated and self-directed students who assume responsibility for the design and conduct of their educational program, in conjunction with a strong individualized mentoring/academic advising program.

The extraordinary access to knowledge available through the Internet has prompted a revolution in how people obtain information and gain knowledge. This revolution has empowered learners to choose what they want to learn, and when, where, and how they want to learn it; in other words, to actively direct, plan and design their acquisition of knowledge, as they plan their future endeavors. Despite the wide availability of information outside of formal educational institutions, the university setting uniquely continues to offer education that cultivates the processes of thought, investigation, logical deduction and scholarship. How universities adapt to the new approaches to knowledge acquisition and the demands of students to dictate their own learning needs remains to be developed.

In appreciation of this large-scale societal shift in how information is consumed and used, we are proposing the development of the SDEP, targeting subsets of outstanding traditional matriculated students (directly out of high school, following the common New Brunswick Gateway portal experience), as well as non-traditional students (those returning to seek a degree after significant life experience). The fundamental concept of the SDEP is that students would design their own curriculum to complete their own major, based on their own assessment of their future plans and goals, not based on a set of pre-existing generic majors. The concept of "One Rutgers" means, in part, facilitating access by all students to all the curricular offerings of the entire university. The Program for Self-Directed Education could serve as an initial experimental mechanism to navigate the challenges to such open access. As the initial pilot would focus on traditional four year students, it is proposed to be housed in the New Brunswick Gateway, although the success of the program over time and the potential to extend to non-traditional students and those who might not otherwise select a residential four-year college experience, may warrant a reconsideration of the administrative structure in the future.

While the details of this program need to be further developed, there are a number of possible scenarios that could be envisioned (see the following section, entitled "A Model for the Self-Directed Education Program"). These would include specific guidelines with respect to the development of programs of study to plan the Major, development of student-specific Major advising committees, benchmarks for progress and specific educational milestones, and the completion of an original scholarly capstone project. An interesting feature of the SDEP might also be the award of Certificates for completion of different levels and collections of course work, a feature that might be particularly attractive for non-traditional students.

We propose that the SDEP be initially developed as a pilot program, involving perhaps 50-100 carefully selected students to assess the feasibility of this approach both for the students and for the faculty. The SDEP effort would obviously be "faculty-intensive" utilizing significant faculty time for participation in advising and major proposal committees. Thus, there would have to be recognition of faculty and their employing units and of the effort and value that they devote to the education of these students.

This pilot SDEP could serve as a model for a new era of higher education, in line with the overall trends in society of increased individual choice and direction in developing career paths and goals. The SDEP would position Rutgers on the cutting edge of a new paradigm of delivering individualized education that fits the needs and educational and career aspirations of each student.

A Model for the Self-Directed Education Program (SDEP)

There are a large number of possible models through which the SDEP could be organized. One possible scenario shares certain features with similar programs at some of our peer institutions, such as the Gallatin School of Individualized Study at NYU, as well as aspects of educational programs available at Brown, Antioch and Empire State in New York.   In this model, students would be assigned a general advisor during their first year in the Gateway, from a pool of faculty advisors specifically identified to be part of the SDEP. With the help of this advisor, they would articulate their interests and needs. Together, they would develop a student-specific, advising committee composed of 3 members (number to subject to change both for initial advising committee and for "Major" committee, see below) who could be selected from across Rutgers. Working with this faculty advising committee, students would select a program of courses for the first two years (beyond the requirements of the New Brunswick Gateway portal/core) that will allow them to gain the knowledge and

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expertise that they needed to pursue a more in depth program of studies in the third and fourth years, in order to achieve their personalized life/career goals.

At the end of their second year, students would develop a "Major Proposal" document that would define the goals of their educational program and provide an outline of their personalized major, with an overall plan for courses to be taken in support of their major. This Major Proposal would be presented to a Major Supervision Committee (3-4 members, may overlap with the original advising committee) in both written and oral form (similar to a thesis proposal, but less of an exam than a mentoring activity). Non-faculty experts, as well as non-Rutgers faculty (i.e. from other universities) could also be added to the committee to provide additional expertise and "real-life" perspectives on the program of study and the student's accomplishments. Majors could be individually adapted from existing majors, however, this program is particularly geared for those interested in trans- or inter-disciplinary investigation and learning. Review of the Major Proposal would entail evaluation of the content, rigor, and focus of the program with suggestions to improve all of these. Coursework could include a mixture of standard courses from different Rutgers departments and disciplines, selected on-line courses from other universities that meet appropriate standards, and independent study courses with appropriate advisors and requirements for credit. Depending on the Major and the program of educational activities, certain real-life experiences such as entrepreneurial activities, if accompanied by an academic component (written analytic work, for example), might also qualify for credit. Following acceptance of the Major Proposal by the Major Committee (with revisions in the proposal as needed), it would be anticipated that there would be an SDEP administrative (Dean) level review of all Major Proposals to ensure that they would meet standards required for graduation. Major proposals could be adjusted (but not radically changed) in active consultation (i.e. follow-up meetings) with the Major Supervision Committee.

An additional feature of the SDEP experience would be the requirement for graduation of completion of an original scholarly capstone project with a written thesis (potentially substituted for by another appropriate original presentation, such as a film/website, etc.) prepared under the guidance of a primary advisor with consistent input (on at least a semester basis) of the Major Supervision Committee. The capstone project would require that students demonstrate the kinds of sophisticated analytic and synthetic thought processes and intellectual creativity that goes beyond the mere acquisition of knowledge, but instead demonstrates an ability to actively contribute to society through their chosen area of expertise.

An interesting feature of the SDEP could be the award of Certificates for completion of different levels and collections of course work, a feature that might be particularly attractive for non-traditional students. The awarding of a Bachelor's degree, would however, be contingent upon successful completion of the full program designed by the student and the Major Supervision Committee (with completion of the requisite number of credits required for Rutgers graduation) and the successful completion and formal approval of the final Capstone thesis.

APPENDIX 2: EXTENDED RECOMMENDED PROPOSALS

APPENDIX 2.3: EXTENDED PROPOSAL FOR RUTGERS DESIGN

APPENDIX 2.3
EXTENDED PROPOSAL FOR RUTGERS DESIGN

I. Background and Overview

The concept and discipline of "design" has undergone a revolution over the last few decades. Instead of being viewed as unique segmented sub-fields within the arts (as applied to the aesthetics and function of physical objects), or engineering (as addressing specific functional demands), design has come to be viewed as an over-arching, essential discipline devoted to applying design-based approaches to resolving a multitude of diverse problems (reviewed in the Harvard Business Review, September, 2015). "Design thinking" involves not only the development of discrete products, but extends to the creation, introduction and delivery of interactions, interventions and services; "design thinking" even applies to lifestyles. Design thinking has the potential to contribute to the solution of problems affecting every facet of life, ranging from the individual to businesses and governments, from the home to the workplace, entertainment and health care settings, and impacting the imprint that humans make upon the planet. In this new conception, individuals trained in the discipline of design are an essential component of the workforce, a trend exemplified by IBM's decision to hire more than 1500 design professionals, who bring their unique, needs-oriented perspective to solving complex problems (New York Times, November 14, 2015).

A small, but significant number of colleges and universities are now formally introducing design thinking into their academic profiles, following a number of different models. Models used at comprehensive universities (as opposed to focused design schools) include free-standing institutes (e.g. the "d school" or Institute for Design at Stanford, http://dschool.stanford.edu), traditional Schools of Design within comprehensive universities (e.g. Carnegie Melon School of Design, http://design.cmu.edu), and more narrowly focused, interdisciplinary graduate schools (e.g. Harvard Graduate School of Design, http://www.gsd.harvard.edu).

We propose the creation of "Rutgers Design", a new pan-university program whose structure is yet to be determined. Rutgers Design would encompass much more than the traditional aspects of design, such as architecture, product (industrial) and engineering design, and urban planning. Rutgers Design would also create academic initiatives in exciting new areas of interdisciplinary studies in design, such as the interface of design with business strategies, digital design and design computing, design and the environment, the human response to design (behavioral sciences, ethnography), and the theoretical and practical application of design thinking to the problems of our world, both large and small.

Rutgers Design will leverage strengths at Rutgers in the areas of engineering, business, fine arts-based design (Mason Gross School of the Arts), urban planning and design, communications, existing landscape architecture expertise, applied social sciences, and others. It will also create new strengths, based on recruitment of outstanding faculty drawn from these newer disciplines in design. Rutgers Design will forge relationships and partnerships with leading designers and innovators in design thinking in the New York City and Philadelphia areas, among the leading cities in the world in design in all aspects of design. Rutgers Design will provide a focus for the recruitment of outstanding leaders in design and design thinking from both academia and the private sector; it will provide an intellectual and practical home for faculty and students across the university to learn together and work together, an educational unit developing novel courses open to students from all of Rutgers, and a locus for development of public service and private sector consulting and collaborative work.

II. Vision:

Rutgers Design will bring together diverse elements of Rutgers spanning all of its major units (Newark, New Brunswick, Camden and RBHS, and multiple constituent departments and centers) to develop a highly innovative and interactive, multidisciplinary platform that will provide new opportunities for the education in and the creative application of design thinking to solving the complex and rapidly evolving problems confronting our world. Rutgers Design will draw on the considerable expertise of design-related faculty across the entire continuum of Rutgers, as well as provide a nidus to support the recruitment of world leaders in different aspects of design, who will energize the newly developing Rutgers Design initiative and will provide enrichment and increased academic depth and breadth to their various home departments. Rutgers Design will provide a new paradigm for cross-and inter-departmental collaborations and interactions, as well as a unique interface between Rutgers and the local, state, national and international communities in which it resides.

Rutgers Design will:

• Develop novel educational opportunities to provide training, research and project experience in design thinking to students, fellows and faculty across all of Rutgers
• Leverage the existing strengths in design across a large number of strong units and Rutgers and strengthen

these areas through providing additional recruitment and collaborative opportunities
• Facilitate academic research and development of design thinking and activities to advance innovation in design-related disciplines and enhance applications to solve the critical problems facing our world
• Provide team-based, community-engaged, design-focused services to public and private sector clients, thus contributing solutions to pressing problems at all levels of society while providing real-world research and educational opportunities to faculty and students

Specific areas of potential focus in Rutgers design and interactions with existing Rutgers strengths could include the interface of design with business strategies; digital design and design computing; design and the environment including landscape architecture, and the built environment (i.e. urban planning and effects on communities); design and the arts; design and health care; the human response to design (behavioral sciences, social sciences and ethnography); and, the theoretical and practical application of design thinking to the problems of our world, both large and small. The development of "evidence-based" design, using novel research tools to assess design strategies could be a novel area of academic development as well.

III. Value of Rutgers Design

Rutgers Design will have value to the entire range of the Rutgers community and Rutgers constituents. By providing new educational opportunities that interdigitate with existing Rutgers schools, Rutgers Design will provide training in theory, skills and practical applications of design thinking to enhance career opportunities for students and to provide a workforce trained in this area to New Jersey companies. Through enhancing opportunities for design-related, academic interactions, Rutgers Design will pull together the disparate strengths of Rutgers in these areas, opening up new interdisciplinary collaborations to advance the entire field of design and design thinking. Rutgers Design will also be a "hub" to recruit leaders in design to the Rutgers faculty and community. Through creation of a practice component providing service to public and private sector clients, Rutgers Design will provide a novel locus for public and private partnerships and a new revenue stream. Rutgers Design can contribute to community engagement through application of its services to local community needs, as well as to the broader needs of the State of New Jersey. By virtue of exciting interactions with design professionals in New York and Philadelphia, Rutgers Design will broaden and deepen Rutgers networks with the corporate and philanthropic worlds in these cities and will enrich the Rutgers community by developing new faculty and student connections in these areas. Furthermore, the large international representation of Rutgers students will ensure that Rutgers Design truly has "global reach", training experts in design thinking who will return to their homes and bring innovative solutions to problems across the world, and in the process, increasing the network of effective Rutgers global interactions.

IV. Organization of Rutgers Design

The conceptual organization of Rutgers Design is in its earliest stages of consideration.   Any organizational structure must encompass three main mission areas of (1) offering specific educational content and courses; (2) integrating collaborative academic and research activities; and (3) establishing a "practice" component providing students with "hands-on" experience while supplying expertise on a contractual basis to the public and private sectors. This practice component could be similar in some aspects to "Rutgers Health", a novel, practice-based activity offering the health care expertise of Rutgers faculty from all campuses and units.

Examples of effective design-focused number of alternative structures that could serve effectively to develop this initiative include:

(1) A new pan-Rutgers Institute similar in some ways to the Stanford model- the "d.school". This institute would house the research and practice components of Rutgers Design and would offer specific design-focused courses to students from across all segments of the university, however would not grant degrees. Instead it would partner with other schools and departments to design courses and majors that would bring design training and expertise to these other Rutgers units. The advantages of this model are its tremendous flexibility to respond to needs and opportunities for teaching, research and practice across Rutgers and its inherent (by design) propensity to stimulate collaborations and breakdown barriers. It would provide critical mass of design thinking and provide a nidus for key recruitment of outstanding academic and private sector design leaders, either as permanent or visiting faculty, and yet not develop yet another "silo" within Rutgers. Research collaborations across all units of Rutgers would be encouraged and coordinated, rather than hindered by this organizational structure. The practice component would reach across different Rutgers schools and campuses to provide multi-disciplinary teams best suited to address the needs of clients. Such an organization would also encourage participation by other Rutgers schools and units and not disincentivize them from

supporting the creation of Rutgers Design or from collaborating in the fulfillment of its mission. Initial discussions about Rutgers Design have engendered considerable support from the leadership of other Rutgers schools and units that could be endangered by a model that was more threatening to the identity and revenue of these different units. The major disadvantage of structuring Rutgers Design as an institute, as opposed to a specifically designated new school would be the loss of an opportunity to create a new and highly attractive, focused educational destination for students interested in the different aspects of design, from New Jersey and from across the country. The development of specific design-focused coursework, majors and degrees in collaboration with other Rutgers schools, and an effective plan to market these opportunities (as strongly illustrated by the Stanford d.school) could mitigate concerns about creating an institute instead of a new school. In fact, if developed and presented effectively, the institute model could be highly attractive to potential students, based on the flexibility that could be built in to their educational plans and objectives.

(2) A new School of Design, with cross-campus responsibilities, however with a likely primary location on the New Brunswick campus and additional units housed on the Newark and Camden campuses. As outlined above, the major advantage of a School of Design would be the development of a clearly focused and coherent educational program, easily visualized and marketed both to prospective students as well as to the community at large. The number of high quality design schools, with a multi-disciplinary focus on design thinking remains quite limited. A Rutgers School of Design could rapidly establish a unique and desirable niche to attract undergraduate and graduate students, and a forceful presence of academic design in the greater New York and Philadelphia areas. An example of a strong design school with an emphasis on design thinking that could serve as an aspirational model for a developing Rutgers School of Design is the Carnegie-Mellon School of Design located within another large, full-service university. A Rutgers School of Design could integrate basic processes of design thinking across undergraduate and graduate degree programs and develop unique focused themes around major issues and problems affecting New Jersey, the nation and the entire world (providing potential interactions with the new school of global affairs). Possible disadvantages of a School of Design relate to the potential for creation of another 'siloed' program at Rutgers at a time when breaking down of barriers for research, education and service should be a major focus of any new initiatives. Furthermore, there will be significant concerns from other schools and units that may feel that aspects of their academic missions and financial base are threatened by a new School of Design. If developed and introduced thoughtfully, with well-established collaborations and interactions with other schools and units clearly outlined, and with carefully evaluation of the financial ramifications, this concern could be minimized, but it should not be discounted.

Note that an alternative organizational structure for a Rutgers School of Design, also ensuring educational, research and practice opportunities on all three Rutgers campuses would be a reporting structure involving a newly created executive dean, similar to that outlined above for the proposed School of Global Affairs. Again, we would stress that under whatever model is finally developed, the resources and opportunities to create a truly world-class design effort at Rutgers must involve all three Rutgers campuses as well as RBHS.

(3) As an alternative to a full School of Design, initial efforts could be focused on developing a more limited Graduate School of Design (potentially similar to the Harvard Graduate School of Design). A graduate school of design would grant graduate degrees and could offer courses geared towards both graduate students, as well as advanced undergraduates who would be able to integrate these courses into their established undergraduate major. It could also provide a home for design-related research and for a faculty practice. A graduate school of design would share many of the advantages and disadvantages of a full-fledged school of design described above, however, the smaller scope of the initial undertaking might provide a less ambitious "pilot" program to understand better how design should be handled as a discipline in the Rutgers environment. It is important that Rutgers Design be an initiative that derives benefit from, and benefits to all Rutgers campuses, and from this perspective, the more limited scope of a graduate school of design may be an additional disadvantage.

V. Steps to Develop Rutgers Design

Identification and implementation of the optimal structure should be based on the recommendations of Rutgers faculty experts chosen from multiple, constituent Rutgers units, as well as the input of leading, academic and private sector design professionals from around the country. The development of the model for Rutgers Design and its implementation should draw heavily on the advice of the deans and directors of all participating schools and institutes.

A key first step in the establishment of Rutgers Design will be a thorough inventory and review of faculty and

programs already at Rutgers that can interact with and contribute to the general rubric of Rutgers Design. Academic activities with significant design components are present in essentially all Rutgers units on all three campuses. Obvious candidates include the School of Engineering, the Schools of Business, Mason-Gross School of the Arts, the Edward J. Bloustein School of Planning and Public Policy, the School of Arts and Sciences (New Brunswick), the School of Environmental and Biological Sciences (New Brunswick). The deans of these schools have all expressed enthusiasm for the overall concept, and have also suggested specific activities within their schools that could collaborate with Rutgers Design. Activities directly related to community engagement in the urban campuses in Newark and Camden (including law, criminal justice, public affairs and administration, urban studies, digital studies and many others) would also be strong candidates for participation. Involvement of other schools, such as components of Rutgers Biomedical Health Sciences involved in the delivery of health care at both systems and individual patient levels, is also to be encouraged.

Following the initiation of this inventory process, an advisory committee(s) composed of Rutgers faculty content experts and relevant deans and administrators from Rutgers schools and other units should be established to prepare recommendations for the optimal administrative organization of Rutgers Design. An independent external advisory committee composed of academic design professionals, as well as prominent private sector design professionals with expertise in different models of academic design programs (e.g. from the Stanford d school, Carnegie Mellon, etc.), should be invited for a site visit to secure their perspectives on the optimal organization of Rutgers Design. It is imperative that multiple perspectives be consulted (both internal and external) to provide ideas for designing the best organizational structure and to engender broad acceptance of this new initiative across Rutgers. These committees will also provide recommendations as to specific areas of focus for the evolving Rutgers Design, as well as for discrete steps for implementation. For example, building on existing strengths and areas of potential inter-unit collaborations may provide specific areas for initial content focus. These committees may also provide more specific recommendations regarding initial steps to implement of Rutgers Design. For example, during discussions of this concept with relevant Rutgers deans during the preparation of this report, it was suggested that the initial step might be the development of Graduate level courses and of project-specific consulting activities as has been done at some institutions (e.g., Harvard University Graduate School of Design).

VI. Resources

The levels and kinds of resources required for the initiation of Rutgers Design, of course, will depend upon its organizational structure. In order to develop a design program of national and international stature, and to do so rapidly, Rutgers will need to recruit outstanding academic design professionals. As noted above, the proximity to major design centers in New York and Philadelphia may favor the rapid identification and recruitment of part-time faculty members who are expert design practitioners and who can help "jump-start" this effort, in many ways analogous to the prominent contribution of practicing artists who contribute to the Mason Gross School of the Arts.

Conversely, Rutgers Design has the potential to be a major revenue-generating unit in the university. It is likely that Rutgers Design will attract new students at both the undergraduate and graduate level who are seeking training in this rapidly expanding profession, generating tuition income. Furthermore, the consultative practice component of Rutgers Design has the potential to generate major private and public sector contractual income, simultaneously providing a practical laboratory for student education and a valuable university resource contributing solutions to the difficult problems of our times.

APPENDIX 3: PROPOSALS NOT RECOMMENDED

APPENDIX 3
PROPOSALS NOT RECOMMENDED

The AUOC considered several proposals that were determined to be a poor fit with Rutgers existing strengths and with potentially limited prospects for distinction given regional competition and national trends.

SCHOOL OF HOSPITALITY/HOTEL MANAGEMENT

The AUOC felt that many of the key components needed for a school of hospitality management were missing at Rutgers, so development of this school would require major investments. Low student enrollments led to the recent discontinuation of the Camden Business School B.A. in Hospitality Management and raises questions of whether a school of hospitality management would garner sufficient student interest at Rutgers to be successful. In addition, there is very strong regional competition from well-established and well-regarded programs in NY, NJ, and PA. On balance, the AUOC felt that developing a school of hospitality management was not advised.

SCHOOL OF VETERINARY MEDICINE

While Rutgers does have some academic components that could be drawn upon to build a school of veterinary medicine, it would be extremely costly to build the clinical infrastructure necessary to develop and run a fully functional school. Unfavorable national trends such as flat or falling salaries for veterinarians, typical debt-to-income ratio double that of M.D.s, and increasing class sizes among existing schools as many struggle to cover operating costs also diminished enthusiasm for this proposal. Given the successful Rutgers programs for placing NJ residents into existing schools, the AUOC felt the costs and risks associated with launching a school of veterinary medicine far outweighed the potential benefits.

There are 49 schools of veterinary medicine accredited by the American Veterinary Medical Association (30 in the continental US, 5 in Canada, 1 in Mexico, 2 in the West Indies, and the remainder in Europe, Great Britain, Australia and New Zealand). Within a day's drive of the state of New Jersey the schools are: Cornell University-Ithaca, NY; the University of Pennsylvania, Philadelphia PA; and Tufts University, Boston, MA.

Rutgers pre-veterinary medicine program
The Rutgers Animal Science program has a nearly 100% success rate at placing students who apply with a 3.5 or higher GPA into a school of veterinary medicine. Between 3.3 and 3.5 GPA, that percentage drops to approximately 75-85%. This information is based on data from all students who notify us of their acceptances. The Animal Science undergraduate program director attempts to survey all graduating seniors and faculty members attempt to stay in touch with those for whom they wrote recommendation letters. On average the program places 15-20 graduates in a veterinary program each year. Those whose GPA is in the 3.0 to 3.3 range often get accepted during their second round of applications, i.e., one-year after graduation. Those who do not get accepted after two years are typically those with lower GPAs but keep applying anyway. Life-long passion drives the behavior, rationality, practicality and economics are often not factored in to decision-making until the debt burden sky rockets.

Recent patterns of acceptance to schools of veterinary medicine suggest that academically qualified NJ residents compete well for seats in all existing schools. Traditionally, applicants from states that have a school of veterinary medicine are discriminated against by public veterinary schools in other states. This may be less significant as state schools are increasing tuition revenue by expanding the out-of-state matriculation rate.

One estimate from several years ago suggested the upfront startup cost of a school of veterinary medicine at $300-500 million. Ongoing costs are staggering considering the facilities, professional and support research and clinical personnel needs, and essential access to animals (healthy and sick) to achieve and maintain accreditation as administered by the American Veterinary Medical Association's Council on Education.

While there is a national need for veterinary school graduates for large animals (e.g., equine and bovine services), there is no shortage of veterinarians for dogs and cats, except in some urban and rural areas. In the U.S., approximately 80% of veterinary students are women. Admission to vet school is highly competitive and, generally, salaries have been flat or falling, with increasing tuitions and rising debt burdens on graduates.

The study "Assessing the Current and Future Workforce Needs in Veterinary Medicine" conducted under the auspices of the National Academy of Sciences, reported little evidence of shortages of veterinarians, notwithstanding the above-referenced exceptions. It also concluded that "the cost of veterinary education

is at a crisis point." The cost of a veterinary education has far outpaced the rate of inflation. It has risen to a median of $63,000 a year for out-of-state tuition, fees and living expenses, according to the Association of American Veterinary Medical Colleges, up 35 percent in the last decade. Starting salaries have sunk by about 13 percent during the same 1O-year period, in inflation-adjusted terms, to $45,575 a year, according to the American Veterinary Medical Association. Today, the ratio of debt to income for the average new veterinarian is roughly double that of M.D.'s. Dr. Alan M. Kelly, former dean of the veterinary school at the University of Pennsylvania, commenting on the results of a veterinary workforce study, indicated that the debt of recent veterinary school graduates is three times their starting salary. The Current president of the veterinary medical association, Dr. Douglas G. Aspros, has expressed deep concern that the economics of veterinary schools is "… not a sustainable model".

Meanwhile, in the climate of continuing state disinvestment many schools are adding upwards of 10 percent more students in each class. And, four more vet schools, both public and private, are either in the planning phases or under construction, one in New York, two in Arizona and one in Tennessee. If all are ultimately built, there will be thousands of additional D.V.M.'s on the market in coming years.

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SCHOOL OF ARCHITECTURE

The AUOC felt that a broader program in design would be strategically superior to a narrowly defined school of architecture. Ten of the top 35 undergraduate programs in architecture are located in NY, NJ, or PA, suggesting significant local competition. In addition, recent trends have seen declining enrollments in accredited architecture programs. The recommended program in design could incorporate general architecture through strategic partnerships with existing programs. The existing strong cooperative relationship between Rutgers and NJIT, which has the best-ranked architecture program in NJ, made this an attractive alternative to a new school at Rutgers limited to architecture.

According to the National Architectural Accrediting Board (NAAB), there are currently 154 NAAB accredited professional programs in architecture in the country.   Housed in 123 institutions, these programs include the Doctor of Architecture (1), Master of Architecture (95) and Bachelor of Architecture degree (58). The Northeast region is home to the greatest number of accredited programs (34), accounting for 22% of all programs.   There is no dearth of highly ranked architectural programs within close proximity to Rutgers. Ten of the top 35 undergraduate programs are in NJ, NY or PA, including the program at NJIT (ranked at 31); seven of the top 35 graduate architecture programs are in NJ, NY or PA, including the programs at Columbia University (ranked 4th), Princeton University (ranked 12th) and University of Pennsylvania (ranked 15th).

According to the NAAB 2015 annual report, total enrollment in accredited architecture programs decreased by 10% between 2010 and 2014. Since 2011, the rate of decrease has consistently been about 3% per year. After several years of decline in first-time enrollment, 2014–15 saw a 1% increase. On average, it takes 14.5 years after high school to become licensed.

A study conducted in 2012 by the Georgetown University's Center on Education and the Workforce found that the highest rates of unemployment for recent college graduates were among those with undergraduate degrees in architecture (13.9%).

As of 2010 there were 194,050 architecture professionals working in the US.   This number has shrunk by 16% over the course of the past 4 years. This decline is faster than the growth for all careers between the years 2006 and 2010, which was 1%. This trend is expected to continue over the next 7 years.

Accreditation standards expect a certain number of faculty to be licensed landscape architects. Nationally, 36% of full-time faculty are registered architects. Although affiliated departments (such as art history, landscape architecture, and engineering) could help, Rutgers does not have faculty with expertise in architecture, suggesting a significant commitment to hiring would be needed.

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APPENDIX 4: SUBCOMMITTEE REPORTS

APPENDIX 4.1: FINAL REPORT FROM THE SUBCOMMITTEE ON COMMUNITY ENGAGEMENT & OUTREACH

APPENDIX 4.1
FINAL REPORT FROM THE SUBCOMMITTEE ON COMMUNITY ENGAGEMENT & OUTREACH

Co-Chair: Richard Harris
Co-Chair: Jerome Williams
Peter Guarnaccia
Larry Katz
Dona Schneider

Introduction
The Community Engagement & Outreach Subcommittee (CEOS) examined how to improve Rutgers' outreach mission by leveraging the University's distinctive status as a land grant institution with four academic units—Camden, New Brunswick, Newark and RBHS—all situated on urban campuses. While these units differ in size, geography and mission, they are united in a common commitment to engagement/outreach, a core element of Rutgers' role as New Jersey's public land grant university. The initial question addressed by this subcommittee was: What are the strengths, weaknesses and opportunities in relation to the University's outreach initiatives, broadly conceived? Thus, we considered not only civic engagement and service learning, but also non-traditional student instruction, our partnerships with business and industry as well as our interactions with government at all levels, especially our vital relationship with the state of New Jersey. Drawing upon internal and external data sources and as well as interviews with university leaders, the Subcommittee began its work by assessing the current state of outreach at Rutgers. That assessment provided the basis for our recommendations to:

> 1) Better align and highlight engagement/outreach across Rutgers University;
> 2) Integrate Rutgers' Cooperative Extension into outreach across all units;
> 3) Improve opportunities for degree completion for non-traditional students.

Engagement/Outreach at Rutgers: Current State
Engagement/outreach is central to the identity of academic units across the Rutgers system and entails the entire spectrum of the University's interaction with external constituencies, bringing the University's considerable resources to bear in New Jersey and beyond. Reflecting this perspective, President Barchi, in his charge to the Academic Unit Organization Committee (AUOC), identified an overarching goal to "…cultivate a broad range of partnerships to pool resources and collaborate more effectively with our stakeholders." Our charge, also describes Rutgers as a system of "urban-based universities," and this metropolitan character of our campuses has shaped the University's land grant mission as well as the strategic plans of all academic units of Rutgers University. As it stands, however, the commitment to engagement/outreach reflects more an acknowledgement of Rutgers' historical dedication to service and social responsibility than a strategic plan or vision for those activities and programs.

While all of Rutgers' academic units clearly embrace engagement/outreach with our host communities and the state as well as other stakeholders, we rarely execute it collaboratively or as part of a broader, coherent strategy. Given the prominence of these programs in our unit strategic plans and given the charge to the AUOC, this situation seems anomalous. Moreover, the oft-repeated commitment to "One Rutgers" tends to ring hollow as academic units across the University pursue service opportunities with little coordination or systematic communication either among themselves or with the wider world. A web survey (see Appendix 1 for select examples) of Rutgers' outreach units and programming to external stakeholders, and communities reveals overlap, duplication and even competition, suggesting a campus-focused or unit-centric approach that prevents Rutgers from optimizing its total impact.

Although entrepreneurship, freedom of action and initiative are essential to healthy engagement/outreach programs, a lack of communication, collaboration and strategic thinking can make the whole of Rutgers, in effect, less than the sum of its parts. Indeed, a 2007 University Committee on Service Learning and Engaged Scholarship, co-chaired by Isabel Nazario and Jerome Kukor, highlighted this problem:

There was no doubt that many members of the University community are already working closely with the community to solve problems, build organizational capacity, and to provide direct service; however, the lack of a centralized administrative focus for this work makes it impossible for Rutgers to tell its full story to its constituencies. (p. 7)…

The term service (from education of the states' citizens, working with state government to improve public

policy and programs to actively running child development programs in Camden and a global leadership institute in Newark) is not just a part of the institution's mission, it is what it does every day. The average person in New Jersey may not know the extent to which Rutgers looms large in the state's life and progress. (p. 15)

Although our CEOS has been able to identify discreet examples of cross unit cooperation on engagement/ outreach, they are ad hoc and opportunistic; it appears that administrative organization and budgetary models (even preceding RCM) militate against collaboration or leveraging resources. A natural consequence is that communication about Rutgers' engagement/outreach is disjointed and uneven, undermining the University's ability to "tell its full story." The CEOS views the University's current strategic planning effort as an opportunity not only to promote the visibility and impact of our outreach, but also to explore ways how we might deepen and institutionalize connections across academic units to improve effectiveness without stifling innovation. Overcoming administrative or budgetary obstacles is not impossible: it is a matter of institutional vision and will. With a sound strategy and institutional leadership, we can build on the work of Kukor/Nazario Committee across the wider Rutgers system, enhancing our individual academic units as well as our "One Rutgers."

Two significant environmental developments have added impetus to our engagement/outreach efforts, but have replicated the lack of collaboration:

1. The imperative to develop additional revenue and/or enrollment streams through "entrepreneurial" initiatives in the face of state budget cuts;
2. The advent of a broad civic engagement movement in American higher education.

In response to the first development, Rutgers, like many other public universities facing severe fiscal challenges, has significantly expanded online and satellite courses to attract new enrollments, particularly of nontraditional students. In this expansion, we see little strategic collaboration or, in some cases, rivalry not only from one academic unit to the next but also between academic units and the Division of Continuing Studies. Rutgers Camden, for example, offers an Executive MPA while Rutgers Newark similarly offers an Executive MPA. At the same time, the Center for Government Services offers courses throughout the state that cover many of the topics embedded in the MPAs, as does the Center for Executive Leadership in Government. Online and off campus courses as well as degree programs seated at different campuses at times compete directly and may well be dividing the same pool of undergraduates or non-traditional students or missing opportunities to serve them while enhancing numbers overall. These new instructional endeavors have grown opportunistically and reactively rather than as a component of a strategic vision that incorporates the entire range of outreach activities.

Similarly, the expansion of civic engagement at Rutgers, while impressive in scope, has developed without a university-wide strategy. Indeed, notwithstanding the Nazario/Kukor Report, these activities have developed more or less independently in Camden, where an Office of Civic Engagement (http://www.camden.rutgers.edu/civic-engagement/office) reports to the Chancellor, in Newark through the Office of University-Community Partnerships (OUCP) (http://oucp.newark.rutgers.edu also reporting to the Chancellor), and in New Brunswick with the Collaborative Center for Community-Based Research and Service http://engage.rutgers.edu. Each of these engagement and outreach offices describes its mission essentially as connecting university resources to its host community, its region, New Jersey, and beyond. Yet they neither interact significantly nor do they coordinate a message to external stakeholders; we view this as a strategic opportunity overlooked.

With the recent adoption of Rutgers Health, the opportunity to engage the wider community in the health care arena is enhanced. Rutgers Health will become one of the first academic health care provider organizations in the nation to integrate a full range of health-related specialties – including medicine, dentistry, pharmacy, nursing and clinical psychology – in addition to more traditional fields, such as neurology, surgery, cardiology and oncology. Add to this range of activities preventative health outreach and education and Rutgers will distinguish itself as a true leader in health care and in the academe.

In some instances, the geographic locales of our various campuses combined with specific local needs or relationships dictate that partnerships or service delivery be developed and managed by a particular academic

unit or subunit. Nevertheless, there may be opportunities for one unit to take the lead in a project or program while collaborating with another unit to leverage resources to better serve external stakeholders (as our Committee charge suggests). Too often these opportunities are missed, owing to a lack of communication and coordination. A good example of this circumstance is the great work SEBS's Cooperative Extension is doing in Camden on health and nutrition that was going on unbeknownst to campus leaders deeply involved with this same issue in Camden. This kind of program also could include participation form RBHS, but currently there is neither an institutional mechanism nor an incentive structure to overcome the inertia of Rutgers units operating autonomously rather than cooperatively.

Thinking Strategically about Outreach

In thinking strategically about engagement/outreach, we should not restrict our view to the traditional land grant mission and the more contemporary dedication to civic engagement. The matrix below provides one possible framework to promote a more thorough consideration of engagement/outreach at Rutgers.

Table 1 Outreach Matrix

Sector	Technical Assistance	Extension Services	Satellite Campuses	Professional Development	Non-Traditional Students	Applied Research
Public						
Private						
Non-Profit						

Table 1 displays our categories of engagement and outreach activities (the columns) as they might apply across sectors or types of stakeholders (the rows). Each cell could contain specific activities or programs delivered out of specific units to different external constituencies. There are, no doubt, other ways to systematize a discussion of outreach, but the main point is to think strategically and systematically about the whole range of Rutgers' outreach. Whatever the matrix adopted, it would provide a model to inventory and analyze our activities and programs, extending a key recommendation of the Nazario/Kukor Committee across Rutgers' four units and beyond the limited focus on service learning.

Also, in thinking strategically about engagement/outreach, as President Barchi notes, we should be mindful of the urban character of our campuses. The metropolitan reality, not only of the University's units but also of the state, suggests the need to reimagine our land grant mission, a process that is already under way within the Extension Services unit at SEBS.

As Rutgers approaches engagement and outreach strategically, special consideration should be paid to the large and evolving role of our land grant extension services. Through Rutgers' engagement/outreach, all New Jersey residents can access university resources for technical assistance, advocacy support and lifelong learning, no matter the region of the state where they live and work.

While the University's dedication to public service originated with Cook College, it has become a core commitment across the Rutgers System (New Brunswick, Newark, Camden and RBHS) to our partnerships with county governments, and other public as well as private and nonprofit organizations. In addition, the Extension Service has evolved to serve New Jersey's urban and suburban populations as well as rural and agricultural populations. The extension system at Rutgers, centered in SEBS

> …works to fulfill the goals of land-grant institutions by enlarging the land-grant mission to include the study of environmental problems, natural resources, economic and community development, fisheries, nutrition, public health, and youth development--all of which address the diverse needs of a highly developed state.

APPENDIX 4.1
FINAL REPORT FROM THE SUBCOMMITTEE ON COMMUNITY ENGAGEMENT & OUTREACH

http://execdeanagriculture.rutgers.edu/ghcook.asp

For millions of New Jersey individuals as well as families, businesses and communities, Rutgers Outreach at all of our academic units is the doorway to their public university, enabling them to:

- Achieve personal growth, professional success and organizational effectiveness through formal and informal learning;
- Address the changing needs of the state and society by applying relevant university applied and basic research;
- Gain greater access to educational, cultural and civic resources through the use of technologies.

As we look to make the land grant mission relevant in the 21st century, the CEOS notes that extension-based services, coordinated through SEBS, occurs throughout the entire state of New Jersey and there are significant opportunities to align the work of the extension faculty with the engagement/outreach efforts of all academic units, with an emphasis on our civic engagement in Camden, New Brunswick and Newark. Developing more conscious and strategic connections between extension resources and the engagement/outreach of our academic units ought to be a focus for outreach across the Rutgers System.

The opportunity to expand outreach in preventative health education programs in concert with Rutgers Health is great and timely. For example, Family and Community Health Science educators currently work in neighborhoods across the state to promote healthy families, schools, and communities. These efforts are developed to foster a culture of wellness in the areas of nutrition, physical activity and health, chronic disease prevention, and food safety.

Another important area of strategic engagement and outreach concern is the increasing number of non-traditional students seeking higher education degrees. A September 28, 2011 essay by Frederick Hess in The Atlantic made the following observation:

> There are currently 17.6 million undergraduates enrolled in American higher education. The National Center for Education Statistics reports that just fifteen percent of them attend four-year colleges and live on campus. Forty-three percent of them attend two-year institutions. Thirty-seven percent of undergraduates are enrolled part-time and thirty-two percent work full-time. Of those students enrolled in four-year institutions, just thirty-six percent actually graduate in four years. http://www.theatlantic.com/business/archive/2011/09/old-school-colleges-most-important-trend-is-the-rise-of-the-adult-student/245823/

This trend has persisted and is one of the defining features of the higher education landscape today. Indeed, nontraditional students (NTS) comprise a significant share of graduate and professional study as well at Rutgers and across the nation. A critical aspect of outreach should, therefore, take account of Rutgers University programming for NTS. New Jersey, itself, has a large underserved population of potential NTS (ages 25 to 64 years) with some college experience but no degree. In 2010, this cohort represented fully one-quarter of all New Jersey residents (871,838 with some college but no degree and 325,716 with an associate degree). While many of these students are currently well served by the RU-N and RU-C campuses, RU-NB does not currently serve their needs effectively as these students often require night, weekend and off campus offerings to reach degree completion. Many majors in RU-NB do not offer these options and students struggle to meet graduation requirements. The subcommittee also observed that growth in online and off-campus instruction is driven in great measure by NTS enrollments.

It is worth noting, moreover, that NTS performance compares favorably with traditional four-year students. For example, the most recent three years of data show that the average GPAs of NTS at RU-NB out-performed those of traditional students at RU-NB (Table 1). As returning adults with life experience, NTS have a seriousness of purpose that enriches our classrooms. They are also the main enrollees for our night, weekend, off campus, and online course offerings.

Table 2 Average GPAs for Traditional and Non-Traditional Students, RU-NB

Cohort	Year		
	2012	2013	2014
Traditional Students	2.990	3.000	3.024
Non-Traditional Students	2.945	3.489	3.969
Non-Traditional Students 31+Years	3.058	NA	NA

Data Source: Report of the Task Force on Serving Non-Traditional Students at Rutgers New Brunswick, April 2015.

Designing programs that reach out to NTS presents an important opportunity for Rutgers and especially for the New Brunswick campus, which has witnessed a precipitous decline, standing now at 06.4% of total undergraduate enrollment compared to 22.2% for Newark and 31.7% for Camden. Moreover, as chances for doing coursework online and at satellite campuses across the Rutgers system increase, an opportunity presents itself for the University to develop a comprehensive approach to NTS outreach in order to assure broad access to a Rutgers degree while leveraging our resources throughout the state.

Recommendations

The current state of affairs raises the question of whether we are missing opportunities for more collaboration and impact in our engagement and outreach across academic units. More importantly, perhaps, are we missing opportunities to enhance the efficacy of the university's outreach mission and increase our visibility? To that end, the CEOS proposes the following recommendations to President Barchi:

1. Institutionalization and Strategy – Create a permanent body, a Rutgers Engagement and Outreach Committee, reporting to the President. The Committee should be charged with leveraging these activities across units and promoting effective communication across units on outreach/engagement activities. While the exact composition of this Committee is not designated in this proposal, it would be essential that high level representation (befitting a committee reporting to the President) from all academic units be included, along with leaders from university-wide outreach and engagement centers (e.g., GAIA, the Collaborative, DOCS). The Ohio State University, for example has created an Office for Outreach and Engagement that serves as a strategic center for the University (See Appendix 4.1-B for a description). Since Rutgers encompasses multiple academic units, it does not seem advisable to mimic the OSU model but the rationale of coordination and synergy for their Office for Outreach and Engagement applies here as well. The proposed Rutgers Engagement and Outreach Committee should be appropriately staffed and charged with systematically reviewing outreach across all units (with the model proposed above or some similar tool) and develop a plan to promote and sustain strategic collaboration on engagement/outreach and to rationalize our online and off campus course offerings.

2. Budgets and Investment – The Committee should be placed in charge of a significant fund of seed money that would be used to promote outreach, in all its forms, and should give special consideration to proposals that come from multiple units and promote collaboration. This body should also assure that any impediments to collaboration and leveraging created by RCM are effectively solved.

3. Communication and Visibility – Finally the Committee would be charged with developing and maintaining, in cooperation with academic unit and media relations, a plan that maximizes Rutgers' outreach visibility not only across the state, but also the nation and internationally. A first order of business should be to assure that all eligible Rutgers campuses are members of both:

    a. The Campus Compact - http://compact.org and
    b. The Coalition of Urban and Metropolitan Universities (CUMU) http://www.cumuonline.org/.

4. A University-wide Extension Unit – Expand the work and reach of Rutgers Cooperative Extension by placing Extension faculty members in all Rutgers units. These faculty members, with appropriate extension line-weight, will have promotion and tenure responsibilities with evaluation criteria including either Extension Scholarship or Extension Practice (for county-based faculty), as currently implemented for Rutgers Cooperative Extension faculty in SEBS.

   a. This unit should be led by a senior level university official who will have responsibility for the Extension services across all academic units, and should serve on the Rutgers Engagement and Outreach Committee (see recommendation #1 above)

5. Expand Services Offered for Non-Traditional Students in New Brunswick – Expand pre-admission transcript evaluation and intensive advising for non-traditional students on the flagship campus so they can achieve degree completion in a timely manner. These students need night, weekend, online, and off-campus courses and many cannot easily fulfill the requirements of some New Brunswick majors. Thus, renaming UCC to UC-NB and expanding services for these motivated, mostly part-time and off campus students meets the land grant mission of the university, and should improve statistics for degree completion for university accreditation.

References
1. New Jersey cut funding for higher education by 22% since 2008. http://www.njpp.org/blog/new-jersey-spending-on-higher-education-cut-deeply-since-2008
2. The Coalition for Urban and Metropolitan Universities (CUMU) was founded in 1990. Rutgers Camden and Rutgers-Newark are members. The Campus Compact, "the only national higher education association dedicated solely to campus-based civic engagement" is celebrating its 30th anniversary. Again, only the Camden and Newark campuses are members.
3. Here is a link to the way the University of Wisconsin's categorizes its outreach: http://continuingstudies.wisc.edu/outreach/arts.htm
4. U.S. Bureau of the Census, 2011 American Community Survey.

APPENDIX 4.1-A
WEB SURVEY OF RUTGERS OUTREACH

Rutgers University–New Brunswick Programs for the Community
> http://ucm.rutgers.edu/events-outreach/community
> The University Communications and Marketing Office of Community Affairs manages a number of community outreach programs that bring Rutgers to the public and the public to Rutgers.

Douglass Outreach
> http://dddc.rutgers.edu/dddc-outreach.html
> Douglass Outreach provides services using the principles of Applied Behavior Analysis to individuals with autism spectrum disorders, their families and the educational programs that support them. Our consultation employs ongoing measurement and data analysis to ensure appropriate interventions for each individual client, student, family or classroom. Consultants are experts in the implementation of evidence based strategies and hold a minimum of a Master's degree in special education, psychology, or another related field. Many consultants are Board Certified behavior Analysts.

Rutgers Community Outreach Partnership
> http://policy.rutgers.edu/cupr/rcopc/
> The Rutgers Community Outreach Partnership Center (RCOPC) is a university initiative, managed by the Center for Urban Policy Research, to assist community-based organizations in the revitalization of the West Side Park neighborhood in the Central Ward in Newark, New Jersey. The U.S. Department of Housing and Urban Development and Rutgers University jointly fund RCOPC.

RHS Health Outreach, Promotion and Education (H.O.P.E)
> http://health.rutgers.edu/locations/location/11
> Health Outreach, Promotion and Education (H.O.P.E.) is an active learning, student centered unit within Rutgers Health Services. H.O.P.E. has an integrated academic and student life approach comprised of peer education, curriculum infusion, information development, outreach, and training related to health and wellness.

Community Service at Rutgers
> http://getinvolved.rutgers.edu/programs-and-events/community-service
> At Rutgers University, we highly value community service and the experiences that students receive by participating in different community service initiatives. We seek to foster social responsibility and learning through community engagement and volunteer opportunities. We provide and support co-curricular opportunities which prepare students and inspire them to be active citizens, while inspiring them to be socially aware and civically involved in their communities.
>
> About the Student Volunteer Council
> The Student Volunteer Council provides Rutgers University students with opportunities to participate in community service initiatives during the academic year. Events include Scarlet Day of Service, Winter Wishes, Give Back New Brunswick, and more. The Council also acts as a resource for students and organizations to find and plan service initiatives. For questions, comments, or service suggestions please contact the Student Volunteer Council.

Center for Continuing and Outreach Education
> http://ccoe.rbhs.rutgers.edu
> For over 40 years, CCOE has developed independent education, adhering to the highest standards of industry compliance. Our commitment to effective lifelong learning continues to improve clinician performance and impact positive changes in the health care industry. Whether meeting face-to-face, studying enduring articles, or interacting through the internet, our audiences have benefited from innovative programming that addresses relevant clinical topics and influences favorable treatment outcomes.

Rutgers Office of Continuing Professional Education (OCPE)
> http://www.cpe.rutgers.edu/
> The Office of Continuing Professional Education provides educational opportunities for adults and adolescents through short courses, workplace training, and youth services.

Rutgers Food Innovation Centers

http://foodinnovation.rutgers.edu/

The Rutgers Food Innovation Center is a unique business incubation and economic development accelerator program, which provides business and technology expertise to startup and established food companies in the mid-Atlantic region, and utilizes its outreach capacity to reach food and agribusinesses throughout the world.

Rutgers EcoComplex

http://ecocomplex.rutgers.edu/

The Rutgers EcoComplex, is the state's clean energy and environmental research, outreach and business incubation center. It serves as a university-based resource hub and offers industry, academia and government access to applied research capabilities, unique facilities, business and technical expertise, and incubation services. The resources at the EcoComplex facilitate the Commercialization of new technologies and business concepts that address pressing energy and environmental issues facing New Jersey and the nation.

Office of Civic Engagement - Camden

http://www.camden.rutgers.edu/office-civic-engagement

The Office of Civic Engagement connects Rutgers University–Camden to communities beyond the campus. Working with community partners, we support various efforts to meet the challenges facing our host city, county, and region through engaged civic learning, volunteerism and service, community-based research, and integrated efforts and partnerships. We are the starting point for Rutgers–Camden students, faculty, and staff who want to connect with our community partners and help to meet their needs. We are also the first point of contact for organizations, government agencies, schools, and others who believe working in partnership with Rutgers–Camden would help them reach their goals.

Civic Learning

We strive to connect the resources of our campus with the needs and opportunities of communities by working with students, faculty, and staff to build partnerships that achieve common goals. Read more about Civic Learning initiatives, including our Civic Scholars program, Engaged Civic Learning, Faculty Fellows program, and the Graduate Fellows program.

Newark Clinical Program

https://law.newark.rutgers.edu/clinics/clinical-program-overview

Our 10 in-house, live-client clinics are distinguished by their breadth and diversity, comprehensiveness of experiences for students, and their involvement in cases and projects with far-reaching legal or social impact. Clinic law students are guided by a diverse and talented group of law professors with experience in litigation, legislation, mediation or transactional practice. Several members of the clinical faculty have been honored for their teaching, public service or related scholarship.

Camden Clinical Law Program

https://camlaw.rutgers.edu/clinics

The Clinic is the Law School's own teaching law firm staffed by faculty and students. Each year, the Law Clinics handle hundreds of cases and student attorneys provide more than 20,000 hours of free legal services to the Camden community. All of our clinics are designed to assist lower income individuals who otherwise would have difficulty obtaining representation.

Institute of Marine & Coastal Sciences

http://marine.rutgers.edu/main/IMCS-Outreach/

Faculty and staff at IMCS are committed to communicating their research to a variety of audiences including K-12 educators and students, and legislators. Our goal is to use the scientific assets of IMCS to improve public understanding of the ocean.

NJ Small Business Development Centers-Newark/New Brunswick

http://www.business.rutgers.edu/outreach/business

The New Jersey Small Business Development Centers' network is committed to guiding established small business owners and aspiring entrepreneurs to create and expand their business enterprises

which will, in turn, result in sustainable growth, job creation and statewide economic development and prosperity.

Rutgers Newark:
The mission of the New Jersey Small Business Development Center @ Rutgers-Newark is to help entrepreneurs and business owners start and grow sustainable, successful small business through the delivery of appropriate training and technical assistance services and programs.

Rutgers New Brunswick
The mission of the New Jersey Small business Development Center @ Rutgers New Brunswick is to provide entrepreneurs and business owners throughout Middlesex County with training and technical assistance.

NJ Small Business Development Center-Camden
> http://centers.rutgers.edu/center.php?c=3226
> The New Jersey Small Business Development Center, Rutgers-Camden, is part of a statewide network of university and college-based centers that provides comprehensive small business counseling and educational opportunities to small business owners.

Camden MBA Business Consulting
> http://www.business.rutgers.edu/media/coverage/mba-consulting-programs
> Rutgers Business School Offers an MBA Team Consulting Program that gives MBA students the opportunity to earn their degrees while providing hands-on consulting services to client companies. The program gives MBA students the opportunity to have industry experience while pursuing academic qualifications in the MBA program of study.

Camden Entrepreneurship
> https://business.camden.rutgers.edu/entrepreneurship/
> Over the years many firms, large and small, have effectively used consulting services offered by the School of Business.
>
> The program brings the knowledge and experience of MBA and undergraduate business students, under the guidance of an instructor in the Entrepreneurship Team Consulting Class, to bear on a need identified by a client. The client receives a detailed report of insightful analysis and valuable recommendations. Students apply and sharpen their problem-solving and team-building skills. They provide an independent analysis utilizing multiple perspectives. As part of Rutgers University, instructor and student consultants can access a wealth of information and expertise for their projects. To date, Rutgers students have completed consulting projects for business firms, not-for-profits, and government agencies.

Newark Writers House
> http://www.ncas.rutgers.edu/mfa-creative-writing/community-outreach
> Sponsored by the Masters of Fine Arts in Creative Writing, the English Department and the Paul Robeson Gallery, The Writers at Newark Reading Series provides a bridge to the Newark community. Readings are held once a month, at 5:30 pm in the Paul Robeson Gallery or Robeson Multipurpose Room 231. The series usually features two prominent writers whose diverse voices reflect the "Real Lives, Real Stories" theme of the MFA program. It provides a dynamic forum for the members of both the university and local community to hear and interact with the writers. It is free and open to the public.

Camden Writers House
> http://writershouse.rutgers.edu
> Once complete, the Writer's House will serve as home to both the MFA program and the English department. The first floor will serve as programming space for our Writers in Camden Series, our student readings, community workshops, commencement celebrations, and other special events; while the second floor will serve as faculty and administrative offices, including the offices of Story Quarterly, the literary journal published by Rutgers-Camden.

LETTER FROM THE VICE PRESIDENT

What then amidst these stresses and demands of our emerging new century, does the term "public university" mean today? The irreducible idea is that we exist to advance the common good…the fundamental challenge with which we struggle is how to reshape our historic agreement with the American people so that it fits the times that are emerging instead of the times that have passed."

<div align="right">

Kellogg Commission on the Future of State and Land-grant
Universities, Sixth Report: "Renewing the Covenant"

</div>

New Directions for Outreach and Engagement

With my appointment in 2012 as Vice President for Outreach and Engagement, I began a very careful and deliberate re-visioning process of the office's mission and scope. This process coincided with the sesquicentennial celebration of President Lincoln signing the Morrill Act that created the land-grant university system. The ongoing celebration of the Morrill Act has provided a timely and significant opportunity for The Ohio State University to advance a 21st century model of outreach and engagement, a model that includes the urban as well as the rural, in-reach as well as outreach, institutional priorities as well as community needs, the academic core as well as the public sphere.

To better define and refine the role of the Office of Outreach and Engagement, our staff initiated a series of listening sessions. We started these sessions in spring 2012 with units that have played a major historical role with outreach and engagement at Ohio State, followed by sessions that began in fall 2012 with various deans and vice presidents. At the same time that we were meeting with the deans, we also hosted dialogues with each unit's outreach and engagement representatives and with faculty leaders campus-wide. Equally important as these internal listening sessions were sessions with external partner advisory groups and organizations. Our strategic plan reflects the feedback from these internal and external meetings and also is shaped by conversations and recommendations from major outreach and engagement national groups including the Association of Public and Land-grant Universities (APLU), the Kellogg Foundation, the Engagement Scholarship Consortium, and senior leadership at benchmark universities.

In applying the feedback to the distinct contours of Ohio State campus culture, it became clear that the Office of Outreach and Engagement (O&E) could best help the larger campus in three ways:

1) Creating a culture of robust, interactive collaborations so that there is more program integration

> Our first major collaborative effort was undertaken with the Office of International Affairs, the Service-Learning Initiative and the Office of Undergraduate Education to significantly expand the Outreach, Engagement and Service Awards Program. We did so by first developing four new awards in Community and International Engagement and then leveraging our resources so that instead of giving only plaques as in previous years, this year all recipients received cash awards on par with the university teaching and service awards. By combining efforts, we greatly surpassed the number of applications we received when operating separately. In addition to consolidating the awards programs, the Office of Outreach and Engagement consolidated three grants programs (O&E impact seed grants, OSU CARES/Extension, and Service Learning) to create a streamlined experience for grant applicants and the awarding of over $350,000.

2) Enhancing outcomes through purposeful planning and coordination so that engagement activities in selected communities can be more aligned with the university's one-university approach

> Examples of this coordination include the working group model for placed-based community engagement and our ongoing efforts with the President's Office and Senior Council Management to coordinate university-wide sponsorships. A notable example of our coordination efforts will also be a university-wide database of outreach and engagement activities.

3) Valuing faculty scholarship on outreach and engagement

> Major ways the office supports faculty scholarship include: providing increased grant support for faculty scholarship, inviting more faculty input on the future direction of the Office of Outreach and

Engagement, and establishing an Academy of Engagement Scholars, akin to our current Academy of Teaching.

The Office of Outreach and Engagement has three strategic focus areas to help academic units in the aforementioned ways: building the capacity of their outreach and engagement efforts, coordinating and facilitating outreach and engagement initiatives, and communicating and advocating for outreach activities that exemplify the meaning of engagement – partnerships and reciprocal relationships that put knowledge to work. Recently, O&E brought to campus the Engagement Scholarship Consortium, a national group that trains staff for outreach and engagement duties. Because over forty Ohio State staff took advantage of this training, the Office of Outreach and Engagement now has a critical mass of allies across campus who have a clearer sense of their responsibilities and the opportunities for working in the context of an engaged, land-grant university. The breadth and scope of our outreach and engagement responsibilities as a land-grant university are more expansive and ever-evolving. The boundaries of outreach and engagement activities are not static. Increasingly, the university opens new territories whereby faculty, staff, and students can give back to and learn from communities beyond our own. Although rooted in Ohio agricultural Extension, outreach and engagement is elastic enough to add value to innovative programs such as STEP (Second-Year Transformational Experience Program) that will create the leaders of the future. The Ohio State University has a strong portfolio of teaching, research and service activities that clearly contribute to an outreach and engagement mission and a civic responsibility ethic. However, our size and decentralization have often frustrated our internal and external partners as to how to open the university's many doors. The newly restructured and re-visioned Office of Outreach and Engagement is positioned to be a significant portal for assessing the university's application of knowledge in the service of others.

Sincerely,

Valerie Lee, PhD
Vice President of Outreach and Engagement

APPENDIX 4: SUBCOMMITTEE REPORTS

APPENDIX 4.2: FINAL REPORT FROM THE SUBCOMMITTEE ON INTEGRATION

APPENDIX 4.1-B
FINAL REPORT FROM THE SUBCOMMITTEE ON INTEGRATION

Co-Chair: Arnold Rabson
Co-Chair: Lily Young
Eric Allender
Raymond Birge
Marc Gartenberg
Margaret Marsh

The Subcommittee on Integration had as its major task to examine the potential opportunities generated by the merger of legacy UMDNJ units into Rutgers and the establishment of Rutgers Biomedical Health Sciences. Within the large universe of potential areas of consideration, the subcommittee chose to focus on the integration of RBHS units with other Rutgers academic units. The primary Points of Consideration are listed as a series of questions below.

We recognize that the issues and problems related to integration of RBHS units and legacy Rutgers will vary on different campuses. In particular, given the history of RWJMS as originally the Rutgers Medical School, physically, intellectually and culturally enmeshed with the Rutgers Busch Campus for over 35 years, numerous interactions already exist and, in fact, were major driving forces for the merger of UMDNJ and Rutgers. While some individual areas of interaction have existed on the Newark campuses (with varying degrees of success), this tradition of integration does not exist there, which in fact provides an opportunity to develop truly new interactions for the benefit of faculty and students on this campus.

The Sub-Committee on Integration did not focus on issues related to integration within the structure of RBHS. While we recognize the importance of internal RBHS reorganization, this task is better suited for RBHS leadership. Indeed, an RBHS Task Force on Integration Among Schools and Across Rutgers was established independently of the AUOC by the RBHS Chancellor. An interim report of that Task Force, which included members of the AUOC with RBHS affiliation, concluded that geographical proximity is of critical importance in facilitating scientific collaborations and small group/discussion-based educational opportunities for advanced undergraduate and graduate students. The report is appended to the end of this document.

Finally, our considerations enumerated below are predicated on several operating principles:
- Geography matters: In Biomedical Sciences, particularly laboratory-based research and education, direct person-to-person interactions make an enormous difference that is only partially compensated for by newer information technologies. This is discussed in the RBHS Task Force document, and is operative here. The proposal here would therefore apply to New Brunswick-Piscataway (RU-NB and RBHS) as a geographical unit, RU-Newark and NJMS as a geographical unit, and RU-Camden and its affiliated biomedical programs as a geographical unit.
- Implementation requires faculty input, faculty oversight and faculty buy-in. This could be assured through a series of faculty committees to oversee and govern the implementation of each recommendation.
- Implementation of recommendations will require appropriate resources.

Points of Consideration:

1. **Should RBHS offer undergraduate courses and potentially undergraduate majors to enhance and enrich undergraduate education on both the Piscataway/New Brunswick and Newark campuses and as a mechanism to foster increased interactions and integration between Rutgers academic units? Should RBHS increase joint graduate offerings with legacy Rutgers units?**

We strongly recommend enhanced participation of RBHS faculty in the graduate and undergraduate educational experience at Rutgers on each of the Rutgers campuses. This increased participation could be at many different levels and degrees of intensity, and in fact could be introduced in a graded fashion with increasing participation and integration into undergraduate and graduate educational activities over time. At the level of graduate education, the two decade old integration of molecular biosciences graduate education on the Piscataway/New Brunswick campuses could provide a fruitful model for increased integration in graduate education in biological and biomedical sciences on the different Rutgers geographically-discrete campuses. Development of such joint programs on the RBHS and Rutgers-Newark campuses should be carefully investigated. Rutgers-Camden currently offers a fully integrated joint degree Doctor of Physical Therapy Program with the RBHS School of Health Related Professions and has a joint program with the School of Public Health. There may be other currently unexplored other opportunities as well.

With respect to undergraduate education, RBHS faculty, particularly in Piscataway/New Brunswick, already provide key laboratory-based research education for dozens of Rutgers undergraduate students every semester, a critical teaching activity that should be formally (and financially) recognized. RBHS faculty also already teach selected lectures in a small number of undergraduate courses at SAS (and even SEBS), however this could be expanded with significant participation in undergraduate courses at these schools as well as at Rutgers campuses at Newark and Camden, providing relevant basic science lectures or possible medical implications as a part of existing courses. This would represent a relatively modest level of integration.

Further expansion of undergraduate educational integration could include development of specific advanced undergraduate courses (and graduate courses) by RBHS faculty providing biomedical context. For example, material currently presented as part of RBHS masters programs on both campuses could be reformatted for presentation for advanced undergraduates, such as presentation of molecular basis of drug action. Similarly, specific new courses such as courses in pathobiology, medically relevant biochemistry/molecular medicine, and the relationship between normal and pathologic behavior could be developed and taught by RBHS faculty, potentially in partnership with legacy Rutgers faculty. Again in a more modest form of integration, these courses could contribute to existing majors in SAS or SEBS (or equivalent majors on the Newark campus)

Further development of this concept could include creation of new joint undergraduate majors offered collaboratively by RBHS and appropriate partner schools within Rutgers legacy. Representative possibilities could include majors based on the biological basis of human disease or human behavior (including both psychology and psychiatry faculty). To our knowledge, a formalized move of a medical university into undergraduate education is novel and could ultimately become a draw for undergraduate applicants seeking earlier and stronger connections to post-graduate medical careers. Degrees in these majors could be jointly awarded by the collaborating schools (similar to the joint degrees that NB/Piscataway graduate students used to receive from UMDNJ or Rutgers). In a more innovative model, RBHS could grant undergraduate degrees in these new majors through existing schools on the Newark and New Brunswick/ Piscataway campuses. Such a plan would align well with models of a common portal of entry for Rutgers students followed by entry into different Rutgers schools at years 2-3 of undergraduate education. It should be noted that RBHS already grants Bachelor degrees from the School of Nursing and the School of Health Related Professionals.

Given the importance of direct interactions of advanced undergraduates with faculty and the desirability of small class sizes to facilitate active student engagement in these types of learning activities, we recommend local interactions be developed at each geographical campus. In order to spur the development of these types of programs, we recommend the development of campus-specific, steering committees composed of local RBHS faculty and legacy Rutgers faculty (including members of all relevant science departments) to develop these new programs.

We further recommend that implementation requires the dedication of resources for development of these new educational opportunities on each campus.

2. Is there detrimental duplication of departments between RBHS and other Rutgers academic units?

The integration subcommittee recognizes that on superficial inspection, there may appear to be duplications in certain areas (microbiology and biochemistry departments, cell biology and neuroscience are cited as examples). However, upon a thorough analysis of the functions and roles of the departments in these units, it is clear that the missions and in fact the areas of scientific investigation and teaching performed by these departments are very different. This is underscored by information collected by CAPR prior to the integration process. In surveys of major aspirational peer institutions (e.g. UCLA, University of North Carolina, University of Wisconsin, Purdue University, Ohio State, Indiana, University of Arizona, and University of South Carolina) conducted by CAPR, such areas of apparent "duplication" are not viewed as detrimental, but in fact important differences between related departments are viewed as a strength for both research and education. Furthermore, the experiences at other institutions have been that efforts to merge superficially related, but distinct (on the basis of mission and culture) departments are generally not worth the major disruptions that ensue. Instead of forcing mergers of these related departments, efforts to develop further scholarly and educational interactions should be pursued, such as joint undergraduate educational activities, joint graduate programs and joint collaborative grants and research facilities. As a minor point, efforts should be made to eliminate duplicative departmental names, in favor of names that more effectively convey the mission and

activities of a department.

It is important to reiterate that on the campuses of Robert Wood Johnson Medical School and Rutgers-NB, joint graduate programs already exist, operate and educate with great success. This provides a model for like efforts on other campuses. As noted in point #1, such a model could even be extended to undergraduate programs that could, in defined situations, span departments and even schools. Furthermore, within the context of specific and relatively defined academic disciplines, there may be a role for development of joint graduate programs that span the campuses. For example, combining the local and complementary strengths in Newark and Piscataway/New Brunswick might allow for the development of a strong graduate program in specific sub-disciplines such as virology, in which graduate students could rotate in, and ultimately pursue doctoral training in labs on both campuses. Any such efforts should be carefully identified by faculty from both campuses who are motivated to come together to develop a unique graduate education experience (i.e. a "grassroots" effort rather than "top-down" direction).

3. Is there a role for a major reorganization of biomedical researchers across Rutgers?

The Integration Sub-Committee considered two "extreme" possible reorganizations of RBHS and legacy Rutgers basic scientists. These "extreme" reorganizations were: 1) Moving RWJMS basic science faculty into SAS (and in parallel, moving NJMS and NJDS basic science faculty into Rutgers Newark) and conversely, 2) Moving biomedically-focused SAS faculty (and Rutgers Newark faculty) into the geographically-proximate RBHS medical schools.

Moving RWJMS basic science faculty into SAS (and in parallel, moving NJMS and NJDS basic science faculty into Rutgers Newark) would provide potential financial advantages to the medical schools and would also potentially better align basic scientists with their colleagues doing related research (both by topics and techniques). It would also more closely align basic biomedical scientists with the physical and mathematical scientists, providing key integration of these disciplines in the service of human health. On the other hand, separation of medical/dental basic science faculty from the clinical faculty on each campus would discourage potential translational research activities, an area strongly encouraged by the National Institutes of Health. Furthermore, such a move would deprive RBHS basic science programs of the clinical income that is used at most medical schools to underwrite these expensive programs. Conversely, mandated relocation of SAS (and Rutgers Newark) basic biomedical faculty into proximate medical schools would increase the critical mass of basic biomedical research in the RBHS schools, but would disadvantage these faculty (who are at risk of becoming "second class citizens") as well as potentially reducing the priority placed on undergraduate education. Such a move could also distance SAS faculty from their important colleagues in chemistry, mathematics and physics. Importantly, such a move could also have a serious negative impact on the undergraduate educational mission of Rutgers. Based on experiences at other Universities, although appealing on one level, when the needs and priorities of undergraduate education are forced to compete directly for time and resources with the needs of medical education, there can be a reduced emphasis on undergraduate teaching.

The sub-committee has not yet reached a consensus on specific recommendations regarding these two "extreme" alternatives. We raise these as topics for discussion by the entire AUOC, as our recommendations may be tied to consideration of other major topics of consideration, such as the ultimate organization of SAS and SEBS, suggestions related to a possible "School of Sciences", and the roles and nature of Centers and Institutes.

In considering these complex questions, it is important to understand that in addition to the massive reorganization of biological sciences engendered by the creation of RBHS and merger with Rutgers, the basic science departments at both NJMS and RWJMS have recently undergone a significant consolidation within each and are still adjusting to these changes. At this time, we feel that the potential disruption to valuable interactions and "cross-fertilization" within the existing units is not warranted without considerable additional discussion. It would seem prudent to more thoughtfully consider these "extreme" options and their implications over the next two years, either by this or a follow-up committee, as the impact of RBHS continues to evolve. One approach to consider would be to pilot a limited realignment of a few, particularly appropriate faculty members on each campus, identified through a combination of self-selection, and recommendation by Department Chairs. It should be noted that on the NB/Piscataway campus, two of the three basic science departments are topically aligned with SAS departments (departments in biochemistry and molecular biology,

and in neurosciences and cell biology), thus facilitating potential faculty moves. The impact of Institutes and Centers on the organization of research may also play a role, as the actual departmental home for some faculty members may become less important than their home is an Institute or Center. Finally, the implementation of new approaches with increased integration of undergraduate education as outlined in point #1 may suggest a middle ground between these two extreme alternatives that addresses many of the needs of all schools, without the need for these more drastic structural reorganizations.

4. **Are there potential undeveloped/underdeveloped interactions between legacy RU schools and RBHS that would enhance educational and/or scholarly activities at these units and provide education in fields that will serve the large proportion of the economy that is devoted to health care?**

We believe that given the vast resources present across the different schools at Rutgers, there are a large number of exciting opportunities for novel and/or expanded educational and scholarly interactions with RBHS units. There are already a number of medically-related courses offered at non-RBHS units within Rutgers, such as through the Bloustein School and through SAS, however there are innumerable opportunities to build on this relatively small offering and to further develop the interactions with RBHS faculty. Parenthetically, we understand that the Institute for Health, Health Care Policy and Aging Research represents a unique example. The Institute for Health is now a part of RBHS but its faculty span the university, with particular strengths drawn from Social Work, Public Policy, and SAS. Centers and Institutes (a separate committee), therefore, can serve as a mechanism of research and educational integration.

It is premature to identify specific areas (which will require a further analysis of strengths and potential investment and return), but examples of such opportunities could include programs in areas such as medical jurisprudence, medical informatics, the business aspects of the changing landscape of medical care, medical economics, medical anthropology (potentially in conjunction with global health initiatives), novel educational programs focusing on the integral role of social work as part of the medical team, integration of aspects of the history of medicine, medical ethics, public policy and medicine (with Eagleton, Bloustein, and others) etc. This initiative would in many ways be parallel to recent initiatives in Ph.D. graduate education at RWJMS/Rutgers-NB, such as the iJOBS grant, that give students opportunities to explore career opportunities beyond the traditional academic track. Further analysis of these possibilities will require additional time and/or formation of a specific committee(s) to consider the specifics of this proposal. One possible avenue to pursue over the next year would be for AUOC members representing different units of the University (such as Business, Law, Mason Gross, Bloustein, SAS, etc.) to come up with a few (perhaps 1-3) joint programs that we would offer for further development by Rutgers. It is important to note that such areas of new interactions between different Rutgers units could serve as a nidus for exciting recruitment efforts strengthening different Schools and Centers/Institutes.

5. **What are the roles of the BA/MD programs on each campus and should they be expanded/modified in ways that would enhance integration?**

Each medical school has a joint BA/MD program for early identification of outstanding undergraduate students (for RWJMS drawn from the NB/Piscataway campus and NJMS, draws from nine State Colleges and University Campuses across New Jersey). The original intent of these programs was not only to allow early identification of strong students, but also to allow students to pursue more creative, "risky", non-traditional educational programs prior to medical school (such as offered by the Brown University Program in Liberal Medical Education). In practice, however, many students are using the New Brunswick/Piscataway program primarily as a mechanism to shorten their education. A re-invigoration of these programs with a redirection of educational purpose might offer new opportunities for integration (for example, development of innovative course work/tracks). Furthermore, increased participation of Rutgers-Newark and Rutgers-Camden undergraduates in such programs is also recommended.

6. **What is the role of shared technologies and core facilities in integrating research components across Rutgers units?**

The sub-committee has clearly identified shared technologies and core facilities as an important mechanism for helping to integrate research activities across different Rutgers units. Modern and transformative science relies on instrumentation, tools and techniques that have become more and more costly. At RU-NB, acquisition and establishment of core facilities have mostly been done locally in departments or schools to serve the local

community. This has been the practice for many years and bears reconsideration for a number of reasons. First, instrumentation upgrades become an expensive proposition leaving many core facilities operating on older and older instruments and not with state-of-the-art analytical capabilities. Second, technical staffing to maintain, operate and teach how to use instruments varies largely depending on the unit. There may be an experienced staff or faculty tasked with oversight of the facility, or there may be experienced grad students who before departing train the next grad student. Third, use of core facilities may or may not be available to students and faculty not in the unit. Fourth, it is very likely that most faculty don't even know of the capabilities we have in existing core facilities on campus at this moment.

With the integration of RBHS with the Rutgers University community, we have an opportunity to optimize and streamline better service and support to the university community. Considerations that could be evaluated include: 1) consolidation of small like core facilities that are scattered across campuses, e.g. genome and DNA sequencing facilities, confocal and electron microscopy facilities, GC-MS and LC-MS facilities; 2) professional and experienced staff to oversee, operate and train; 3) institutional commitment and support by RBHS and the Rutgers unit. This could overcome the issues identified above, namely, regular upgrading of facilities to keep current, experienced staff with long term commitment, availability to the whole university and service to the whole university.

7.   Should Rutgers develop a school of Veterinary Medicine?

The subcommittee formally considered the advantages and disadvantages of adding a veterinary school to Rutgers. In a number of other institutions (including some of our Big 10 peers such as Ohio State and University of Wisconsin), faculty and students at the veterinary school are integral members of the overall biomedical research community, performing key roles in biomedically focused Centers and activities, such as Cancer Centers. The subcommittee concurred with extensive analyses previously performed by SEBS faculty that serious concerns about cost, the numbers of slots already available in veterinary schools in the US and the Northeast/Mid-Atlantic, and the national job market for veterinarians strongly mitigate against formation of a veterinary school at this time. We believe that this will not be a productive avenue for Rutgers.

APPENDIX 4: SUBCOMMITTEE REPORTS

APPENDIX 4.3: FINAL REPORT FROM THE SUBCOMMITTEE ON INTERDISCIPLINARITY/CENTERS & INSTITUTES

APPENDIX 4.3
FINAL REPORT FROM THE SUBCOMMITTEE ON INTERDISCIPLINARITY/CENTERS & INSTITUTES

Co-Chair: Richard Lutz
Co-Chair: David Dante Troutt
William Gause
Ali Maher
James McGlew
Denis Pare

We were asked to look at the importance of interdisciplinarity at Rutgers and at the role that centers and institutes ("C&Is") play in fostering it. This report begins with a brief discussion of current thinking about the goals of interdisciplinary work in academia, then proceeds to a review of formal procedures in creating, reviewing and terminating C&Is among our peer institutions compared to Rutgers' policies. We then discuss some of the specific problems we have identified with Rutgers' practices before concluding with goals and recommendations for reform.

1. Interdisciplinarity in Academia Today

Interdisciplinarity has become the norm in contemporary American universities, even in fields that traditionally devalued it, such as law. Now, either through collaborations between disciplines or between sub-fields with a discipline, faculty and their students increasingly expect to find benefits in crossing boundaries. Many universities promote interdisciplinarity so they can benefit from external funding opportunities, such as when trying to align scholarly activities with grants from organizations such as the National Institutes of Health and National Aeronautics and Space Administration (Harris "Interdisciplinary Strategy and Collaboration: A Case Study of American Research Universities). Additional reasons include institutional recognition and improved reputation for research innovations that would be impossible without interdisciplinary collaboration. As Creso M. Sá affirms in the article "'Interdisciplinary Strategies' in U.S. Research Universities" since universities are "both 'producers' and 'consumers' of academic professionals" interdisciplinarity on the collegiate level also garners intellectual returns.

Universities are not only promoting interdisciplinarity in their research centers but in their departments as well. "Cluster hires" of interdisciplinary faculty may be given a certain level of autonomy to pursue their interests, and several institutions reward faculty for interdisciplinary work, particularly in tenure considerations and faculty promotions, including Duke University and the University of Southern California. In addition, by "linking internal activity to broader societal benefits, university leaders leveraged support for interdisciplinary initiatives" (Harris 28).

At Rutgers, C&Is have been recognized as furthering several important strategic principles, as a 2009 report by the Committee on Academic Planning and Review discussed:

1. Rapid changes in and across various disciplines require the organization of faculty from different departments in interdisciplinary units to enable new scholarly activities not feasible in the existing departmental structure;
2. C&Is can be used to attract scholars and/or retain outstanding faculty, especially in emerging fields, by offering them affiliation with a unit that is focused on and offers increased visibility for their particular area of interest;
3. C&Is can serve as a fundraising channel for federal, state and private programs;
4. C&Is can be used to promote interactions between University members and people from government, business and/or non-profit sectors who share similar scholarly or policy interests;
5. C&Is bring enhanced visibility to the University by creating a critical mass of researchers in an area that could not be easily achieved within individual departments;
6. C&Is can serve as a focus for outreach, economic development and service to local, state and federal governments.

2. Comparing Formal Practices at Peer Institutions to Rutgers

We surveyed Big 10 and AAU schools in order to learn how they approach formalities such as C&Is funding, creation, monitoring/review, termination/dissolution, faculty and indirect costs, using a consistent set of questions. Interdisciplinarity appears to be the underlying principle of university research C&Is. Most universities had no formal practice regarding why a research facility would be titled a center or institute.

Notable exceptions include University of Maryland—a center is created with a specific cause that generally has a natural sunset, while institutes are created with the idea of their perpetuity. At University of Nebraska-Lincoln, centers are located on one campus while institutes span campuses, and at Brown University the distinction relates to size, with institutes being larger than centers.

Funding: Most institutions provide C&Is with some form of seed/startup funding, but require them to fund themselves with publications and substantial grants from federal, state, and local government, organizations and institutions such as National Institutes of Health, National Science Foundation, National Endowment of the Arts/Humanities, and General Electric, and private donations. While publications and recognition are valued, the ability to raise funds for research projects and centers appear to be one of the strongest deciding factors in hiring research faculty.

Creation: Universities all had formal creation protocols. New C&Is were all required to submit a written proposal which included intended project, proposed faculty appointments, short and long term funding goals, space requirements, to obtain approval by Office of Vice President/Chancellor of Research, Office of Sponsored Projects, or Office of the Provost. Some universities had additional requirements. Northwestern University practice, for example, though more extensive is far more collaborative and includes meetings, seminars, and luncheons with faculty and department heads of proposed center/institute, Domain dinner with Office of Administration & Planning, and engagement with "Provost, Vice President for Research, Associate Vice Presidents for research, and other members of central administration."

Evaluation: Centers/institutes are almost universally evaluated or re-vetted each year. They are required to submit to the appropriate governing department (OVCR/OSP/Office of Provost etc.) annual progress reports, reflecting current/completed research projects, publications, proposed budget and projects, acquired grants/ gifts or other funds, and accolades and recognition to assure productivity.

Termination: Universities generally lacked clearly defined practices and policies for the termination of research centers/institutes; though, unproductive centers/institutes may often be absorbed into or combined to create larger ones.

Faculty: Faculty members in research centers/institutes (sometimes called research professors) are generally tenure track faculty affiliated with a specific department within the university and receive salaries from their home departments. However, they are distinct from "research faculty," such as research scientists, who are non-tenured, not affiliated with a specific department but with the center/institute itself, and are often required to obtain their negotiated salary from the external grant funds they are expected to acquire. This, we believe, is one of the most notable differences with centers/institutes in STEM, whose faculty often have more autonomy (due to the substantially larger grants and awards for science and technology). As such, faculty tend to focus more on experiments and innovations rather than teaching. Lack of department affiliation, however, can be an impediment for research faculty, such as in identifying and appointing students to assist with research projects, resulting from their limited interaction with students.

Indirect Costs: Since most faculty members have departmental affiliations, indirect costs, which may cover administrative personnel, building maintenance, etc. are often distributed at a previously negotiated rate. Michigan State University's OSP keeps a percentage to cover Facilities & Administrative costs, while University of Maryland departments and centers do a 50/50 split. More complicated is University of Nebraska-Lincoln's model where the institution receives 1/3; the remainder is divided between the center and department often at best a 60/40 split. According to Assoc. VCR Steve Goddard, this can cause resentment from the departments that provide the faculty but do not benefit from the center/institute's returns.

Faculty Impressions: The subcommittee endeavored to review the disciplines with which we're personally familiar in an effort to provide more context for the general findings above.

C&Is in law: Beginning with the law school in Newark, formal interdisciplinarity is rare, save for a few emerging examples in the clinics. The school has never had a history of durable centers, with the exceptions of the Center on law in Metropolitan Equity (CLiME) and the Institute on Education Law and Policy. This stands in some contrast to many other peer institutions, though many with centers, programs or institutes do not engage in co-equal interdisciplinary collaboration. For instance, University of Chicago Law School has several "programs" and four research centers, about half of which are interdisciplinary with other faculties. Indiana

University has six centers that are faculty led and student focused, with only one expressly interdisciplinary. Ohio State, Dickinson and University Maryland have one each, focused on race, children's issues and women's equality, respectively. None of University of Iowa's seven "auxiliary" centers and institutes are interdisciplinary. University of Michigan Law School has (like Columbia and NYU) a great many (>15) centers and programs, but most are organized around specific seminars, conferences or course of student study. At Berkeley Law School, the Thelton Henderson Center is led by both faculty and an administrator and has worked to re-make itself into a school-wide center of public interest scholarship and activity. These examples demonstrate mixed enthusiasm for centers and institutes among law schools, with at least four (and often many more) per school, but with a range of missions that only occasionally highlights interdisciplinarity.

C&Is in engineering: In the School of Engineering (SOE), the majority of C&I have been created through national competition and based on requirements of external funding sources such as NSF, DOT, FAA and other state and federal government sources. Most of these centers follow protocols primarily set forth by the sponsors and internally are considered as decanal centers. A key operational aspect for most SOE centers is emphasis on inter and multi-disciplinary activities which include participation and involvement of research faculty and staff from across the university.

C&Is in biomedical/health sciences: C&Is are utilized to focus resources on specific areas of research at many medical schools throughout the U.S. Active C&Is can serve as effective platforms for the development of large multi-investigator grants since C&I faculty with common areas of research are brought together in a variety of meetings ranging from journal clubs and joint lab meetings to sponsored national symposia. In this way, C&Is provide a structure where faculty can share their common interests, increasing the likelihood of productive collaborations. Another advantage of C&Is is that they can be used to effectively attract philanthropy as donors are often interested in supporting a specific disease or area of research such as inflammatory bowel disease or neuroscience. C&Is can also act as a bridge between faculty in basic and clinical departments. In this way, they can catalyze the development of translational research projects, which can include C&I members who may never have met each other through conventional departmental organizations. Joint recruitments between C&Is and conventional departments can potentially benefit both organizations. Incentives to encourage such recruitments can include sharing of startup packages for new faculty and sharing of indirect cost recovery of grants generated by successful faculty. To optimize faculty interactions within a C&I, geographic proximity in the same building or same floor of many of the faculty is optimal. However, use of new web-based systems can provide a platform to enhance faculty interactions in different locations.

Neuroscience C&Is, as a specific example, demonstrate remarkable diversity nationwide with no clear consensus on best practices. Many universities have one or more neuroscience research C&I. There are probably hundreds of Neuroscience C&Is in the US. A review of several state universities shows that practices vary widely, from a well-organized process similar to Rutgers' to a free for all with no defined policies. The scope of C&Is also varies widely within and between institutions, with some C&Is focusing a relatively narrow area (say "Learning and Memory") studied by specialists approaching the same theme at different levels of analysis, to C&Is with no specific focus within Neuroscience. Faculty affiliations (C&Is vs. Departments) also vary widely as do policies for sharing of indirect costs.

Earth, Ocean and Atmospheric Science: All peer institutions of higher learning that are prominently ranked nationally and internationally within the fields of the earth, ocean and atmospheric sciences have these disciplines administratively organized under a school, college or equivalent administrative unit. Each of these administrative units has a Dean or Director reporting directly to an Executive Vice President, Chancellor or Provost in the same capacity that Deans within other schools/colleges within their university/institution report.

3. <u>The Rutgers Process: Current Policies and a Comparative Critique</u>

Policies. The Rutgers University Policy on "Research Centers and Institutes" was revised in 2013 and compares favorably to many of the practices that seem to reflect the most well-conceived policies. C&Is are defined by size and classified by the manner in which they were created. According to the policy, "An Institute differs from a center in that it would have a broader mission than a Center, have wider academic interests than is characteristic of focused research center, may have several Centers within it, and may include members from other higher education institutions." We distinguish among four different kinds that classified according to their level of approval and reporting relationship: 1) Board of Governors C&I (created by the Board of Governors or the New Jersey legislature); 2) Statewide Centers and Institutes (major University initiatives,

jointly sponsored by two or more schools, and approved by the President and Board of Trustees); 3) University C&I (approved by Vice President of Research and Economic Development—VPRED—and to whom the director reports); 4) Decanal Centers (dean approval and reporting); and 5) Departmental Centers (approval by department chair and dean with reporting to chair). The Office of the Vice President of Research and Economic Development (OVPRED) acts as the central administrative source of support in the creation, review, renewal and dissolution of C&Is.

Creation of C&I at Rutgers is governed by a fairly extensive set of specific rules and guidelines, which include the required contents of a proposal for a new C&I, the approval process and minimum requirements for information that must be communicated on C&I websites. "The EVPAA [Executive Vice President of Academic Affairs], VPRED, Chancellors, and deans who supervise a substantial number of C&Is, should form and meet on a regular basis with a council of directors reporting to that supervisor." Directors are responsible for submitting annual reports whose content is set forth on a dedicated University web page (the Vice President of Research, or VPR) along with several principles set out in the policy itself.

The expected term of a C&I at Rutgers is five (5) years, subject to renewal process for another five-year term. Six months prior to a term's end, directors are obligated to submit progress and to demonstrate that they have met initial goals. The review process is exhaustive and covers multiple layers depending on the outcome of the initial review; denials or requests for additional information entail a lengthier process with more checks and balances, similar to a promotion determination. Notably absent, however, is an explicit opportunity for a director who has been denied renewal to advance his/her case, say, before a committee empaneled to conduct an external review. There is also no clear opportunity for a director to appeal a dissolution decision. The Rutgers policy is also quite specific about how participating faculty share departmental and C&Is responsibilities; it lists six (6) principles of facilities and administration distribution.

Criticism of the Rutgers C&I Policy or Practices: The subcommittee identified both discrete and large-scale problems with the way C&I function to promote interdisciplinarity at Rutgers.

First, the University could do more to follow up on its requirement of discouraging duplication. Under current rules, new C&I must do a website search to ensure that there is no duplication with existing C&I. However, the list is not sufficiently descriptive or up-to-date to answer inquiries about potential collaborations. A more actively administered repository would be helpful to a variety of aims.

The inherent nature of the structure of a school with its clearly defined reporting relationships and flow of finances imparts the "horse-power", especially under the soon-to-be implemented RCM model, necessary for success. In contrast, under the current envisioned RCM model, there is little or no incentive for faculty to become members of an Institute which has no input into tenure or promotion decisions and provides little in the way of resources compared to the resources provided through association with a school.

Finally, there is no official process for appealing a dissolution decision. The importance of establishing such a process was recently illustrated by the politically-motivated dissolution of three C&Is at the law school of University of North Carolina at Chapel Hill's.

4. <u>Goals and Recommendations</u>

Based on the foregoing, the subcommittee makes the following recommendations:

1. Ensure centralization of updated information about Rutgers C&Is, including appropriate periodic publicity internally and externally about the work of our C&Is.
2. Create a dissolutions appeal process in which a new central committee/office (operating at the president's level and consisting largely of faculty) would evaluate dissolution decisions. It will be essential that this committee is given good administrative support; equally essential that the RU commit decent start-up funds for its work. The committee must have clear policies for situations (e.g. a poor evaluation) that arise when a C&I is either changed or eliminated.
3. C&I's should have a substantial degree of financial independence from RCM centers (i.e. schools). Where F&As are shared between schools and C&I's, the determination of the split(s) should be clear in the charter. The central C&I committee must be involved in changes to the split.

References

1. These included the two lists that follow. BIG 10: University of Chicago, University of Illinois, Indiana University, University of Iowa, University of Maryland, University of Michigan, Michigan State University, University Of Minnesota, University of Nebraska-Lincoln, Northwestern University, Ohio State University, Penn State, Purdue University, And University of Wisconsin-Madison. AAU: Brown University, Carnegie Mellon University, Columbia University, Cornell University, Duke University, Harvard University, Johns Hopkins University, New York University, Princeton University, Stanford University, Tulane University.

2. Sample of questions: Is there a formal process for the creation, evaluation, and termination of their research centers/institutes? How are they funded? Does there seem to be a difference between the centers in STEM, the humanities, and professional schools? Is the salary of faculty members in research centers and/or institutes generally supported by budgets attributed to these centers or institutes? If not, what is their source? Do faculty members in research centers and/or institutes also have departmental affiliations? If so, how are indirect cost returns from grants shared between the centers/institutes/departments?

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APPENDIX 4: SUBCOMMITTEE REPORTS

APPENDIX 4.4: FINAL REPORT FROM THE SUBCOMMITTEE ON STRATEGIC PLANNING

APPENDIX 4.4
FINAL REPORT FROM THE SUBCOMMITTEE ON STRATEGIC PLANNING

Chair: Ah-Ng Tony Kong
Joachim Kohn
Maria Soto-Greene
Linda Stamato
Cheryl Wall

This subcommittee looked at the strategic plans prepared by the four campuses as well as the university's plan in an effort to assist the other sub-committees as ideas surfaced for consideration as well as to look specifically for common elements, challenges and opportunities relating to academic organization in light of the charge to the committee.

This subcommittee recognized that this is the opportune time to create a unique state university. The plans being developed by AUOC match Rutgers Overall Strategic Plan's aspirations: Envisioning tomorrow's university; Building faculty excellence; Transforming the student experience; and Enhancing the university's public prominence.

We looked in particular at the challenges of the future and how these may be addressed by changes in the organizational structure of our academic units. Our work in Year 1 laid the foundation to develop ideas on the structure, operation and function of specific units, with the goal to achieve excellence in research, interactions between students and faculty, hands-on learning, and responsive services for all members of the Rutgers community. Reviewing reports from Harvard Business School and Pew Research Foundation illustrate the urgency of "thinking outside the box" when examining ways to reduce barriers to interdisciplinary, and cross-unit/campus collaborations. The AUOC will also have to identify obstacles to realizing the priorities of the existing strategic plans with a focus on finding a common goal among the plans.

To succeed in its transition into the future, Rutgers will need to embrace a tidal wave of cultural changes. Most importantly, the University must become more nimble, administratively lean, and efficient organization. Decisions need to be made rapidly and consensus building needs to be fast. The Rutgers administration must inculcate a culture of service and innovation that responds to the needs of faculty, students and other stakeholders. At the same time, the faculty will have to become more collaborative and more open to change. The university will need to promote the development of innovative teaching approaches and an innovative research enterprise. AUOC will need to address and envision an organizational framework for our academic units that will support these critical changes in the next 10 years.

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