

**BUILDING A SUSTAINABLE
UNIVERSITY SYSTEM:
FROM CONVERSATION TO ACTION,
A PROGRAM OF CHANGE FOR THE
UNIVERSITY OF PUERTO RICO**

PREPARED FOR THE

University of Puerto Rico System

SUBMITTED BY THE

Association of Governing Boards of Universities and Colleges
1133 20th Street, Suite 300
Washington, DC 20036

Building a Sustainable University System: From Conversation to Action, A Program of Change for the University of Puerto Rico

February 12, 2016

By Terrence MacTaggart, Thomas Meredith, and Richard Novak
Association of Governing Boards of Universities and Colleges

Table of Contents

Introduction	3
Puerto Rico's Economic Crisis and its Impact on the University	4
Five Sections of the Report.....	5
I. Reforming Shared Governance	6
Changing Shared Governance.....	6
Council of Higher Education.....	7
The Government's Role in Governance Stability	7
II. Board and Executive Leadership	8
New Expectations for Board Leadership	8
System Heads are Now Change Leaders.....	11
The Dual Responsibility of Campus Leaders.....	12
Changing the Central Administration.....	12
Focus on Core Functions	13
Basic Academic Quality, Sustainability, and Efficiency.....	13
Supporting the Change Process	13
Accelerating the Shift to Shared Services.....	14
Reduce the Costs of the Central Administration Itself.....	14
III. System Restructuring	14
Options for Restructuring	15
The Self-Sustaining Model for Large Campuses	15
The Affiliation Model	16
The Consolidation Model	16
Complete Autonomy	16
IV. Actions to Reduce Costs, Improve Administrative Efficiencies and Focus Academic Programs and Services	21
Administrative Efficiencies and Cost Reductions.....	23
Administrative Services Review	23
Academic Program Review and Prioritization.....	23
Reductions in Staffing Levels	24
V. Strategies to Accelerate Growth	25
Improving Student Retention and Graduation Rates	26
Adjusting Tuition and Fee Policies	26
Professional Development, Executive Education, and Continuing Education	27
Externally Funded Research	27
Philanthropy.....	28
Online Education.....	28
Conclusion	28
Appendix A: Project Overview.....	30
Appendix B: AGB Team and Staff Biographical Information.....	31
Appendix C: List of Individuals Interviewed	34
Appendix D: Selected Efficiencies.....	36
Appendix E: Board Expectations Example	44
Appendix F: Select Bibliography	45

Introduction

The Board of Governors of the University of Puerto Rico (UPR), recognizing both the importance of the university to the long-term prosperity of the island and the current and projected financial difficulties facing Puerto Rico, commissioned this study and chose the Association of Governing Boards of Universities and Colleges (AGB) to conduct it.

This report recommends and outlines a comprehensive approach to enabling the University of Puerto Rico to adjust to current and projected fiscal realities. The report recommends changes in: the way shared governance is practiced; the role of university leaders; the organization of the 11-campus system; an aggressive approach to reducing costs; and strategies for growth. A full project overview is presented in Appendix A. The list below presents the areas of particular interest to the board, along with the sections of the report in which they are addressed.

- Increasing the cost effectiveness of the central administration (Sections III and IV);
- Reducing duplication of functions and services (Sections III and IV);
- Improving measurable financial and educational outcomes (Sections III, IV, and V);
- Improved working and reporting relationships (Sections I, II, and III);
- A better alignment of the goals of the system, work of the central administration, and missions of the 11 campuses and affiliated auxiliary organizations (Sections II and III);
- An enhanced capacity for the central administration to provide system-wide strategic leadership (Sections II and III); and
- A more strategic relationship between the central administration and the governing board (Sections I, II, III, and V).

In response to these expectations, the AGB team—Dr. Terrence MacTaggart, Dr. Thomas Meredith, and Mr. Richard Novak, along with Ms. Elizabeth Alvarado and Ms. Cristin Toutsis, who managed operations from AGB’s Washington, D.C., office—spent several weeks reviewing materials and preparing for an on-site visit to Puerto Rico. Drs. MacTaggart and Meredith have been system heads in a combined total of five states: Alabama, Georgia, Maine, Minnesota, and Mississippi, and together with Mr. Novak, Ms. Alvarado, and Ms. Toutsis, have more than 100 years of service in higher education policy, planning, and leadership. The team’s vitae are presented in Appendix B.

The team conducted interviews in the offices of the central administration in San Juan, Puerto Rico, during the week of October 19 through 23, 2015. The team reviewed additional reports and other documents; held several discussions with Chairman Jorge Sanchez, President Uroyoan Walker, and others; conducted interviews with some 41 members of the faculty and administrations; and met twice with the advisory group for this study (Appendix C). Drawing on these reviews and conversations, and its own experience in leading and studying the performance of systems in the United States and elsewhere, the team prepared this report.

The AGB team expresses its appreciation to all who spent time with us and provided candid, thoughtful commentary. We are especially grateful to Chairman Sanchez, President Walker, and the distinguished members of the advisory group. We express special appreciation to Dr. Ida de

Jesus for her insightful and astute commentary on several occasions, and to Ms. Sandra Espada, executive secretary to the Board of Governors, for her excellence in managing the process in Puerto Rico.

Puerto Rico's Economic Crisis and its Impact on the University

Puerto Rico's widely recognized fiscal crisis has had and will continue to have a major impact on its university system, which historically received approximately 80 percent of its funding from the commonwealth's government. At the time of this writing, strenuous efforts to obtain substantive help from the federal government have not been met with success. It is by no means assured that Washington will come to the rescue, at least with amounts necessary to relieve the island's distress, or that federal laws will change to allow the commonwealth to seek bankruptcy protection. Should some relief be provided, it will almost certainly be accompanied by demands for further sacrifice from Puerto Rico.

Thus, absent a focused and inclusive program for change, the commonwealth's fiscal woes will cascade upon the university, resulting in disruptions that could take decades to remediate. The purpose of this report is to suggest directions for a "focused and inclusive" change program for the board to consider, in concert with the president, chancellors, and other university leaders.

It should be emphasized that the board, the president, and chancellors have already taken steps to address the fiscal crisis and position the university for a self-sustained future. We applaud this work, and note examples thereof in the text of the report. The value added of this report lies in: its proposals and suggestions for comprehensive change in governance; expectations of leaders; the structure of the system, including the roles of the central administration; and ideas for further cost reduction and growth opportunities.

It is our intention to "push the envelope" by offering ideas that many will find uncomfortable or that have been tried and discarded in the past. We do so in the belief that the current economic crisis may make acceptable change that would otherwise not be tolerated in better times. Our assignment is to proffer ideas that are working elsewhere in the belief that all are worth considering, and that some may be of great benefit to the university and the commonwealth in this time when change is required.

The task of the board and its executives will be to analyze and discuss these proposals and additional ideas inspired by them to determine which are most likely to yield benefit to Puerto Rico, to make detailed plans to implement the changes, and then to take appropriate action.

The University of Puerto Rico is a remarkable institution in its own right. However, the ultimate purpose of a public university is to contribute mightily to the economic and cultural vitality of the populations it serves. The long-term vitality of Puerto Rico will rest on the effectiveness of its educational institutions, with UPR foremost among them. To avoid a "race to the bottom," the government should do all it can within current resources to invest in this essential resource. At the same time, university leaders, as well as faculty, staff, and student stakeholders, must show they can make the often painful adjustments necessary to sustain Puerto Rico's most important educational resource.

Five Sections of the Report

This report to the board suggests that making the changes necessary to put the university on a self-sustaining path will require I) reform in the way decisions are made (governance reform); II) a fresh emphasis on how executive leadership is asserted (leadership reform); and, quite possibly, III) a fundamental reorganization of the university system itself, including the central administration (structural reform). Following these sections, the report goes on to encourage continued efforts to IV) reduce operational costs and V) accelerate growth strategies that will enable the university to avoid more draconian cuts and become more self-sustaining for the future.

In brief, this report begins by recommending that the university intentionally change its governance practice from one that features seemingly endless conversation to one that moves clearly from conversation, to decision, to accountability for results. This change applies to the engagement of faculty, staff, and students in the decision-making process, as well as to leadership relationships among the board, the president, and the chancellors. To achieve this new model of governance practice, representatives of the faculty, staff, and student body will need to engage in serious discussions of the change program and work with their constituents to help them understand and accept the need for difficult choices in the short-term in order to thrive in the long-term.

Second, the report recommends that the president and chancellors further develop their roles as chief *executive* officers of a complex organization. Under this model, changing system practices to ensure the long-term sustainability of the enterprise becomes the order of the day, and greater accountability to the board the means to measure their effectiveness.

The third recommendation is that the board restructure the system to grant greater autonomy to the three largest institutions, enabling them to sustain themselves with substantially less government support. We call this “The Self-Sustaining Model.” The report also presents four options for consolidating the regional campuses in the interest of better service to students and reduced administrative costs. These options include a) locating the regional institutions as units under UPR Rio Piedras and UPR Mayaguez; b) reconfiguring the eight regional campuses into a single accredited institution with multiple locations; c) consolidating the regional campuses into two accredited institutions comprising four branches each; and d) consolidating or merging pairs of the regional campuses to yield a set of four rather than the current eight separate institutions. The first option we are calling the Affiliation Model; the latter three options are collected under the Consolidation Model.

We note for the record an additional choice of eliminating the system and its board entirely and granting full independence to the 11 institutions to compete in the marketplace for educational services. However, while we have included this option, we do not recommend it for Puerto Rico.

The roles of the board and central administration would change markedly during the process of restructuring and as a consequence of the reorganization. The board, through a special committee, would assert oversight of the change process. The process itself would be managed by the president and officers of the central administration in collaboration with chancellors and other campus leaders.

To achieve whatever changes the board endorses will require all leaders in the system—board members, the president, and the chancellors, as well as the elected representatives of the faculty, staff, and students—to lead their institutions through a period of difficult change. All of these leaders will need to *accept* the reality of the fiscal challenge, *commit* to engaging together

to plan the necessary changes, and *implement* the new order of things. All this requires transparency, trust, and resolve to act in spite of pushback and criticism. The economic plight of Puerto Rico makes changes like these necessary; examples from the mainland, including the cases presented later in this report, demonstrate that such changes are possible.

To be sure, adopting these positive attitudes while abandoning habits that do not lead to demonstrable change will not be easy. Historically, academic culture has promoted rhetoric over action, a pattern that was acceptable when resources flowed more readily. Today's environment will not allow endless conversation and criticism of alternatives to stymie action. Those unwilling to engage in this difficult process of change stand in the way of progress. As the report details, everything recommended here has, in similar forms, been accomplished by other universities and systems when faced with challenges akin to Puerto Rico's. Ultimately, it will be the decision of the board, arrived at after consultation with their executives and stakeholders, as to which actions are most likely to yield benefits in light of Puerto Rico's economy, history, and culture.

I. Reforming Shared Governance

Shared governance in higher education operates at many levels, central among them the interaction between representatives of the faculty, staff, and students on the one hand and the interaction between the board and its executives—the president and the chancellors—on the other. Like many other university systems, UPR has multiple layers of councils connecting the campuses and their personnel to the chancellors, president, and ultimately the board. The University Council serves as the most inclusive system-wide body for consultation in shared governance, composed of representation from virtually all major units and interests within the university.

Changing Shared Governance

One of the strengths of shared governance is that it recognizes the respective roles of participants, gives voice to a wide variety of individuals and groups across the system, invites appraisals of changes in policy from many perspectives, and builds consensus or near consensus around fresh approaches.

Especially in an era requiring unpopular and painful change, shared governance presents several challenges for UPR. The features of this system of relationships are 1) decentralized authority; 2) difficulty in achieving consensus on any course of action that seems to disadvantage one interest group or another; 3) a willingness to “end run” the shared governance system by encouraging politicians, for example, to replace board members, presidents, chancellors, and deans; and 4) a willingness of the students to disrupt the university rather than find means of influencing decisions more constructively. The combination of all these features can lead to a collective shrug when it comes to locating responsibility for difficult decisions and accountability for inaction.

Shared governance is the norm in American higher education, and UPR is not alone in struggling with decision making through shared governance in times of scarce resources. The increase in the number of institutions either in serious financial difficulty or going out of business on the mainland is a caution about the necessity of using shared governance effectively to adjust to more competitive market conditions.

What must change is not so much the theory of shared governance, but its practice, including the attitudes of the participants and their behaviors. For the University of Puerto Rico, the model of governance needs to shift from one in which full consensus must precede action to one featuring serious consultation as a prelude to decision making and action by the president and the board. In this model, the president and the board set firm deadlines for decisions with the shared governance participants. The process must have guidelines moving forward, such as: “We will discuss these proposals for X days and attempt to reach consensus. If we fail to find agreement, acceptable compromise, or a better alternative, the administration will move forward in recommending action to the board (or taking action if the matter does not require board endorsement).”

For their part, the representatives of the important stakeholder groups should rise to the occasion, participate productively in shared governance, and lead their members in accepting the necessity of enduring painful decisions in the interests of collective, longer-term benefit. It would be naïve to assume that sacrifice and compromise on all sides will be accomplished without struggle and conflict. But other systems have surmounted these obstacles and emerged stronger and more stable as a result. We have observed movement to this more meaningful use of shared governance and recommend that it become the standard for the future.

Council on Higher Education

While not under the purview of the Board of Governors, Puerto Rico’s Council on Higher Education is part of the overall governance system. It serves a useful function in overseeing and licensing independent and proprietary institutions. However, its control over the curriculum of the UPR System duplicates system and campus oversight, is cumbersome and time consuming, and in some instances lies beyond the competence of council staff. We see little value added to quality or accountability deriving from this duplicative oversight.

Therefore, it is recommended that:

1. The curriculum, course, and program approval functions of the council pertaining to the UPR System be eliminated, except where federal law requires a function. The council’s role could be to determine in a timely fashion if the commonwealth needs the program being requested; it should otherwise avoid addressing curricular or any other considerations for the UPR.
2. The council’s functions should focus primarily on the private and proprietary sectors, with particular scrutiny and due diligence on the latter.

The Government’s Role in Governance Stability

Political leaders in Puerto Rico from both major parties have been very generous in their support of the commonwealth’s university system. The percentage of the budget devoted to the UPR System in the past is, if not unique, certainly well above the national mean. This support has enabled the UPR System to develop comprehensive, high-quality programs to be delivered to the people at a very affordable price. Such affordability is critical to student participation in light of the low average family incomes in Puerto Rico.

Now that the government is no longer in a position to maintain the historic level of finances, it can support the UPR System by granting it more autonomy from political intrusion. In a

democracy, some degree of politicization of public universities is inevitable as politicians seek to serve their constituents and academics seek to influence public policy. Unfortunately, the level of politicization going both ways in Puerto Rico works to destabilize the institution and hinders long-range planning and reform initiatives. Such instability also jeopardizes accreditation. Furthermore, the mandate to not raise tuition and not lay off any employees follows a political logic, but renders strategic change and balancing the budget much more difficult.

The University of Puerto Rico is the only public university in the United States that could have, as a result of an election, complete turnover in its board and president. Even university boards with direct election of members have staggered terms. The following recommendations are offered to political leaders in the hope that they will agree to constrain the high level of politicization, a condition that is not present among accredited institutions elsewhere.

1. The two major political parties should publically support the board, sustain its current structure, and resist calls for change in structure or membership.
2. The political parties should commit to not demanding or expecting, with each new election cycle, changes in academic leaders from the level of dean upwards.
3. Elected leaders should give the board the autonomy to appoint, evaluate, renew, and, when necessary, dismiss its president and chancellors according to its own bylaws. The most-qualified person should be appointed to these positions, regardless of other factors.
4. Elected leaders should discontinue efforts to amend the UPR System's founding statute or otherwise reconstitute the duties and responsibilities of the board.
5. Elected leaders should agree to make appointments to the board with minimal attention to party affiliation, relying instead on assessments of leadership, experience, and wisdom. Doing so would improve the UPR System's stability. An alternative appointment process would be to balance board membership by party affiliation between the major parties, while allowing a number of seats for individuals with no political affiliation.

II. Board and Executive Leadership

Models of executive leadership among public universities and systems in the United States have changed dramatically. The new expectations feature more responsibility among boards for asserting leadership in concert with their executives; more responsibility among executives—system heads and campus heads (the president and chancellors in UPR)—for attention to the business side of the enterprise; and more responsibility among campus heads both in their roles as advocates for their individual institutions *and* their responsibilities as system officers.

New Expectations for Board Leadership

Historically, boards have been the ultimate authority in substantive areas, including approving major policies, fiscal oversight, and the selection, evaluation, and retention or dismissal of the chief executive and campus heads. A powerful status to be sure, but one often implemented passively as boards typically acted on recommendations presented from the chief executive. Today, the expectation is that the board will engage with the executive much earlier in the process—"upstream," as it were—well prior to being asked to endorse a strategy or major

decision. AGB uses the term “integral leadership” to capture the new leadership partnership between the board and the executive.

The continuity in expectations for boards and the new responsibility for change leadership with the chief executive can be described as three tiers in which the base is the fundamental fiduciary responsibility of the board to hold the university in trust for the people. This is a perennial and ongoing responsibility that includes fiscal oversight and steps to ensure that the university operates with a high level of prudence and integrity. The 2011 scandal affecting Pennsylvania State University that began in the athletic department and migrated to the rest of the institution is often cited as an example of a board NOT exercising its fiduciary responsibility.

The second tier is the board’s responsibility to communicate and otherwise connect with stakeholders, both within the UPR System and in the larger community. This obligation includes advocacy for the institution with government leaders and transparency in decision making, except where the law requires confidentiality. While there are many reasons for the current rise in no-confidence votes directed at trustees on the mainland, one surely is the failure of some boards to communicate clearly and often with stakeholders.

Change leadership in concert with the institution’s or system’s chief executive is the top tier, and it separates boards that mainly preside over the institution or system from those that actually become consequential. Only a handful of institutions or university systems are so well-financed that their boards can ignore their obligation to lead change. The fiscal situation in Puerto Rico places this mandate front and center on the board’s agenda.

To bring its inherent authority to the change process, the board should consider these recommendations, drawn from the experience of other change-adept boards:

1. The board can assert leadership by calling attention to the fiscal crisis and the accompanying need to change policies and practices at each of its regular meetings and in other UPR System and public venues. The consistent message would highlight the seriousness of the problem, the need for the UPR System community to work together to address it, and the board’s confidence that, although the changes are difficult, the result will be a stronger UPR System.
2. The board should instruct the president and the chancellors to construct a plan with timetables, milestones, and quantitative outcomes that becomes the road map for the change process recommended here.
3. Because of their importance in advising the board on the change process and in implementing it, the chancellors should be invited to all board meetings and encouraged to comment when appropriate.
4. The board should also demonstrate in public its confidence in the president and the chancellors to conduct the change process effectively and fairly. There will be attempts by those who oppose the changes to end-run these leaders by going directly to board members, a pattern that the board should discourage.
5. The board may well want to schedule a retreat to view and discuss the plan of reductions, growth strategies, and the new governance model. This comprehensive view will enable individual board members to balance the most difficult aspects of change as outlined in subsequent sections of this report.

6. Aligning the agenda of their regular board meeting with topics in the change program will help ensure consistent attention to this process. At this stage in the UPR System's history, this work is the most important task of the board.
7. Finally, the board should expect pushback and criticism from those whose lives and interests are affected by the changes. Opposition to any material change is predictable and inevitable. The board is encouraged to listen patiently and respectfully to critics, then proceed with the reforms that are necessary for the longer-term health of the UPR.

Again drawing on the experiences of boards that made a difference for their institutions and systems, we offer these practical suggestions. Change oriented boards:

- Regularly challenge the administration to propose necessary change options;
- Discuss change options frankly and in-depth at board meetings;
- Include campus heads and representatives of faculty, staff, and students in the discussions;
- Listen respectfully to the voices of those affected by the change;
- Formally approve plans for change as amended by input and discussion;
- Demand regular progress reports; and
- Support the chief executive (the system head) so long as there is progress toward goals.

AGB's publication, *Consequential Boards: Adding Value Where it Matters Most* (2014), captures the essence of current and forecast expectations for boards when it finds: "Leadership for change is more important than ever, and the choices ahead are more urgent than those in the past. In this demanding environment, the structure of governance itself should not be an additional risk factor for the sector."

In summary, we recommend that the board shift to a role of strategic thinking and leadership and set aside the temptation to micromanage. A consequential board focuses on what is best for the commonwealth and uses the expertise of the president and the chancellors along with the expertise on the campuses to chart a practical change plan for the system, complete with goals, timetables, and regular updates on progress. The plan represents the roadmap for change. It maximizes the intellectual and fiscal resources available in the system to effectively and efficiently meet the needs of the people of Puerto Rico. In order to accomplish this task, the board should concentrate on setting expectations and goals, reducing constraining policies, increasing accountability, assuring timely responses, and increasing regular communications with all stakeholders and interests within the university.

Human virtues are essential to the success of a change campaign. Building trust through transparency, mutual respect, admitting mistakes when they occur, and following through on commitments are critical factors. Always acting in the best interests of the commonwealth, the students, the system, and the campuses generates trust. The relationship of the board with the president and of the president with the chancellors is based on these virtues and sets the tone for difficult decisions to be made.

System Heads Are Now Change Leaders

Contemporary expectations for system heads emphasize the business side of the enterprise even more than in the past. Whether titled a president or chancellor, these individuals must act as chief executive officers more so than as academics. Poised as they are between the board and political/government interests on the one hand, and the aspirations of campuses, their leaders, and their regional political supporters on the other, system heads have always faced complex challenges. Especially since the Great Recession of 2008, the assignment has migrated from attempting to accommodate the variety of interest groups that populate a modern university system to changing the way the system and its constituent campuses and the central administration operate. To be sure, solid communication skills and emotional intelligence remain requirements, but making tough decisions has become more the norm, as well.

Among the tasks now often thrust upon the shoulders of system heads (working in concert with their boards and campus heads, to be sure) are these:

- Provide thought and strategic leadership in restructuring the very systems they lead;
- Work in a mode of partnership with the board, recognizing that the board holds ultimate responsibility for the sustainability of the university;
- Continue to advocate for the social and economic value of the academic enterprise;
- Sharply reduce total and central administrative costs and, whenever possible, shift funds to the academic enterprise and services to students;
- Consolidate, eliminate, or substantially downsize individual campuses in the interests of efficiency and freeing up resources to improve services to students;
- Reorganize the delivery of essential administrative services, especially by consolidating them into centralized “shared services” arrangements; and
- Downsize and streamline the overall size of the central administration to improve service, eliminate waste, reduce costs, and represent a model for similar changes at the campus level.

System heads who may have served adequately in a more stable environment or one with more plentiful resources must change their *modus operandi* to meet these demands. Those unwilling or unable to bring about changes such as these should find other opportunities to employ their talents.

The good news for Puerto Rico is that the president and chancellors have already stepped forward to take several difficult, necessary steps toward sustainability; are considering additional actions; and seem to us to possess both the talent and the courage to assert leadership in this era of change.

The Dual Responsibility of Campus Leaders

Historically, campus heads, called chancellors in the University of Puerto Rico System, have owed as much to the European *rector* tradition as to the American *executive* model. Endorsed if not officially selected by the faculty, rectors serve as first among equals with their faculty

colleagues. The chief expectation has been to preserve academic interests during their term of service which, typically, did not end with taking a leadership position elsewhere, but with a return to the faculty position from which they came.

Today, chancellors must blend their academic priorities with the need to serve simultaneously as system officers. To be sure, advocacy for their campus constituents and institutional potential remains an important responsibility. However, the willingness, as a member of a leadership team that includes the president and other chancellors, to contribute constructively to practical reform options, to persuade their campus colleagues of the need for uncomfortable change, and to sacrifice the immediate interests of the campus for collective benefit is now a requirement for this position. Most of the changes proposed in this report as well as others will require this level of diplomacy and leadership from the chancellors in Puerto Rico.

Changing the Central Administration

The board, operating in concert with the president and the chancellors, and in consultation with other stakeholders, sets fundamental strategy and policy for the system. It holds the system in trust as a fiduciary on behalf of the people of Puerto Rico. The central administration, under the leadership of the president, is the operational or administrative entity that enables the board to carry out its fundamental responsibilities.

Like virtually all of the central bureaucracies in the many systems we know, the central administration in Puerto Rico is regularly maligned. Criticisms include being too costly, inefficient, slow to respond to campus initiatives and requests, staffed by those without experience in the matters they regulate, and generally serving to hinder campus aspirations. Many system offices on the mainland are accused of the same faults. This review strives to distinguish between just criticisms and perennial criticism of *any* central authority.

Our recommendations for change are based on our experience with system administrations nationally and globally, our conversations with campus representatives and the advisory committee to this project, and dialogue with central administrative staff whom we found to be as talented as or more talented than many of their peers elsewhere.

In brief, the system will be more effective in responding to the current crisis if the central administration focuses on its core functions of supporting accountability in finance, legal affairs, human resources, information technology, and government relations; focuses on basic academic quality, sustainability, and effectiveness; develops new competence and practices to support the board and executives in making the changes recommended in this report; achieves measurable net savings through shared services of common functions; and reduces its size and costs materially in excess of the reductions that the campuses face.

Section IV of this report offers specific cost reduction suggestions to supplement those already underway. Here we outline important priorities, which in several instances are in progress.

Focus on Core Functions

- ✓ Conduct a policy audit to determine which board certifications, central administrative policies, regulations, and processes align with the core functions listed earlier and eliminate those that do not support the core work.

- ✓ Complete work on the consolidated student database to support campus and system decision making.
- ✓ Continue to redesign core financial processes with the main objective of achieving standard implementation among the various campus finance offices, while establishing performance indicators needed to measure financial performance.

Basic Academic Quality, Sustainability, and Efficiency

- ✓ Provide data for and schedule the program review process outlined in this report.
- ✓ Support the creation of a program for system-wide credit transfer, program articulation, and a common academic calendar.
- ✓ Encourage joint and collaborative programs across the system by convening meetings of academic leaders and offering incentives for joint programs.
- ✓ Reaffirm the need for realistic business plans and the absence of duplication as criteria for program approval.
- ✓ Restrict “mission creep” in which teaching institutions strive to become research universities and undergraduate institutions try to offer graduate programs.
- ✓ Speed up responses to requests for new program approvals by setting a 30- to 60-day limit on response times by the central administration, and notifying chancellors when proposals are returned to campuses for additional information.
- ✓ With respect to funded research, establish a central service, if it does not already exist, for managing the financial side of grants and contracts, securing patents and licenses for commercializing university research, and creating incentives for researchers to expand their work.

Supporting the Change Process

- ✓ Conduct internal staff development programs on the dire situation faced by the university and the need for all units to change to become more efficient.
- ✓ Provide the board, president, chancellors and other key decision makers with the financial, enrollment, cost, and other data necessary to reduce, consolidate, and otherwise adjust units, as suggested in this report.
- ✓ With current resources, assign a senior staff member to research and disseminate relevant information on the transformations taking place in systems on the mainland.

Accelerating the Shift to Shared Services

- ✓ Recognizing that the movement to realize scale economies through centralized shared services, it behooves the administration to accelerate this process, which is already underway.
- ✓ Establish a goal of 5 percent cost savings annually owing to shared services and report to the board on achievement of this goal.
- ✓ Conduct and report to the board hard-headed analyses on net cost savings to the system as a whole to ensure that centralizing services does not result in additional costs to the campuses or the central administration.
- ✓ Evaluate customer assessments of the quality of service under the shared concept.
- ✓ Consider alternatives to centralization in the system office, such as assigning system-wide services to a lead campus and contracting out the services to external vendors.

Reduce the Costs of the Central Administration Itself

- ✓ Recognize that it is often required of central offices to make cuts proportionately larger than those of the campuses to demonstrate leadership and to support campus-based academics and student services.
- ✓ In this vein, a goal of reducing central administration operating costs by 25 percent in a short time frame should be a priority.
- ✓ The policy audit process and the work of the consultant mentioned above should guide the cost reduction process.
- ✓ Opportunities for reduction could include the areas of finance and accounting (we were told that there are 400-450 staff under 12 units in this area, extremely large numbers in comparison with mainland systems).

III. System Restructuring

Arguably, the current structure of the UPR System can no longer be sustained in a time of reduced government support, restrictions on tuition in a society of limited incomes, growing competition in academic quality and service to students from the private sector, and the drastic outmigration or brain drain from the commonwealth. Better suited for an era of growth or at least stability, the legacy structure of a large, bureaucratic central administration overseeing a very diverse set of semi-independent institutions siphons money to administration that would be better devoted to quality education and service to students.

Moreover, the current structure mitigates against concentration of effort on priorities most critical to the economic future of Puerto Rico, unified leadership, reducing duplication, and increasing collaboration. As implemented in a number of systems on the mainland, the purposes of restructuring go well beyond immediate cost reductions. For example, the University System of

Georgia (USG), which has or is in the process of consolidating 10 regional institutions into half that number, lists these six principles that would seem applicable to Puerto Rico as well:

1. Increase opportunities to raise educational attainment levels;
2. Improve accessibility, regional identity, and compatibility;
3. Avoid duplication of academic programs while optimizing access to instruction;
4. Create significant potential for economies of scale and scope;
5. Enhance regional economic development;
6. Streamline administrative services while maintaining or improving service level and quality.

Regents of the University System of Georgia.
<http://www.usg.edu/docs/consolidations.pdf>, under "Recommended Consolidations"

Options for Restructuring

The following summarizes the suggested options for a restructured UPR System:

1. The Self-Sustaining Model for Large Campuses

- ✓ The rationale for this model is that the large campuses have sufficiently robust administrations and a strong position in the market for services, do not overly duplicate one another, and hold distinct brand identities such that they can operate successfully with substantially less regulation by the central administration.
- ✓ This model envisions the continuation of the existing UPR board with its current authority, but with substantially less control from the central administration.
- ✓ In this model, UPR Mayaguez, UPR Rio Piedras, and the UPR Medical Sciences campuses are granted a larger measure of independence. Their portion of a contract with the board includes specific performance measures and reduced financial allocations.
- ✓ The contract might have a five-year term, with annual evaluations conducted by the central administration and reported to the board.
- ✓ Contract renewal or renewal with adjustments is based on a summative evaluation conducted by external evaluators reporting to the board in year four.
- ✓ Accountability for results, combined with the specifics of autonomy, are included in the contract, which requires toughminded negotiation by representatives of each campus and the board.
- ✓ Case studies and a rationale for this model with examples of where it has been tried can be found in the Pioneer Institute for Public Policy Research white paper, *Charter Colleges: Balancing Freedom and Accountability*.

2. The Affiliation Model

- ✓ The eight regional campuses (Aguadilla, Arecibo, Bayamon, Carolina, Cayey, Humacao, Ponce, and Utuado) become affiliated with either UPR Rio Piedras or UPR Mayaguez.
- ✓ Determination of which regional institution joins the larger campus depends on criteria developed by chancellors and the president and presented to the board for consideration and approval.
- ✓ Criteria would likely include proximity, program alignment, potential for improved service to students, and cost savings in academic offerings and administration.
- ✓ The affiliated institutions would seek a single Middle States Commission on Higher Education (MSCHE) accreditation, thus reducing the number of MSCHE accreditations within the system from 11 to three.
- ✓ The Montana University System (MUS) offers one model for this approach, as summarized in the next section (*The Affiliation Model in Practice—the Montana University System*).

3. The Consolidation Model

- ✓ Consolidation or merger of regional campuses offers the potential of streamlining services for students, facilitating transfer of credit, strengthening academic programs through merger, conducting more robust contributions to economic development, freeing up resources for investment in high-demand programs, and reducing duplication and costs.
- ✓ Option one would be to consolidate all eight regional campuses under one executive, perhaps titled senior chancellor; combining all current administrative services in the central administration; reducing the staff and expenses in each of the current chancellor's offices; and reducing the current 11 institutional accreditations within the UPR System to four. This option results in one large university with eight branches in place of eight smaller institutions.
- ✓ Option two would be to divide the current eight regionals into two sub-systems comprising four institutions each. The potential benefits are similar to those in option one, although there would be less streamlining and collaboration and a total of five remaining MSCHE accreditations.
- ✓ Option three would be to merge pairs of regional campuses. The University System of Georgia provides a robust example of the Consolidation Model, as pairs of 10 regional institutions have been or will soon be merged into five separate institutions. More detail on this model is presented in the next section (*The Consolidation Model in Practice—the University System of Georgia*).

4. Complete Autonomy

- ✓ Independence from any sort of central board, executive, administration, and the accompanying rules and regulations is the key feature of this model. Although the institutions remain public, in that their boards are elected by the public or selected by

the state governor and are subject to some state laws, they are largely free to operate like private or independent colleges.

- ✓ “Let the market rule” is the central tenet, with the assumption that the wisdom of the market for higher education services will deliver a superior product if unfettered by the costly restraints and requirements of a central authority.
- ✓ As practiced in Michigan and New Jersey, and recently introduced with significant modifications in Oregon, this model includes a separate board for each institution.
- ✓ Collaboration, where it exists, is voluntary; there is intense competition for students; institutions are free to offer programs wherever and whenever they choose; and there tends to be substantial institutional debt financed by relatively high tuition.
- ✓ We do not recommend this model for Puerto Rico for several reasons. It jeopardizes the system’s commitment to low tuition; the island’s economy and demographics make it unlikely for the Island to support 11 competing public institutions; and the costs of inevitable duplication would run high. It would also increase the burden for coordination of public higher education on the Council of Higher Education, a responsibility it may be ill-suited to perform.

The Affiliation Model in Practice—the Montana University System

In response to economic decline in the state and the resulting inability of the legislature to fund Montana’s universities at historic levels, in 1994 the Montana University System adopted and implemented what we call the Affiliation Model. Since it takes advantage of the academic and administrative strengths of larger campuses and reduces duplication throughout the system, this model illustrates one approach that the board of governors should consider.

The Montana University System comprises 16 two- and four-year public colleges and universities enrolling 46,000 students. The universities are overseen by a board of regents and a central administration led by the commissioner of higher education, who functions much like the president of the University of Puerto Rico System.

Montana’s two flagship research universities, the University of Montana (UM) and Montana State University (MSU), are the two lead universities of the Montana University System, and the smaller units are affiliated with these two institutions. UM, located in the city of Missoula, has 15,000 students and offers a strong liberal arts education and several programs of graduate and postgraduate study. UM also undertakes considerable research and houses the state’s only law school. Montana State University, located in the city of Bozeman, has 15,600 students. It is Montana’s land-grant university. It houses schools of engineering, architecture, business, and agriculture, and has research expenditures of over \$100 million annually. UM has six additional affiliated two- and four-year campuses, all smaller units; MSU has five. Three community colleges are not part of an affiliation relationship and report directly to the commissioner and the board of regents.

University of Montana

Affiliated institutions:

Missoula College of UM

Bitterroot College of UM

Montana Tech of UM

-Highlands College of MT Tech

UM Western

Helena College UM

Montana State University

Affiliated institutions:

Gallatin College MSU

MSU Billings

City College at MSU Billings

City College at MSU Billings

City College at MSU Billings

Great Falls College MSU

In this structure, the chancellors of the affiliated four-year institutions and the deans/CEOs of the affiliated two-year campuses report directly to the respective president of the flagship university. The two flagship presidents report to the commissioner, and through him or her, to the board of regents. The two main campuses provide administrative and library assistance to the smaller units, but each unit sets its own curriculum with board of regents' approval.

The affiliation structure was created when the system was reorganized in 1994 due to severe decreases in state budget support. In a policy brief prepared by the commissioner in 1993, "A Proposal for Restructuring the Montana University System," the goals and rationale to create a more unified system were made plain.

We cannot afford "business as usual." Salaries are going nowhere; we cannot fall any lower than 51st in the nation. The physical facilities are in desperate need of investment. Classes are getting larger, and student complaints are increasing. At the same time, we face a growing demand for educational services within Montana and mushrooming demands from other western states. We must put aside decades of historical precedent, promote a system perspective rather than a local community agenda, and embrace a degree of cooperation that has been the exception rather than the rule.

The challenges are immense, and the cost of failing to meet those challenges is a price we do not want to pay. We seek the help of everyone in this enterprise as we move forward to a better system of higher education in Montana.

I. Goals

- A single, unified system of higher education, a totally integrated approach, not merely a collection of separate units.
- A distinguished system that not only promotes unity, but also a shared statewide sense of ownership, a positive, mutually supportive relationship among units, faculty and staff communicating and working for common system goals.
- Continued recognition of the unique qualities that each institution shares with its community while building toward greater unification of higher education in Montana.

- A shared commitment to the public funding of higher education while simultaneously seeking to enhance and stabilize the revenue base through alternative funding options.
- A focused effort on system-wide choices that will result in cost savings, cost containment and improved services.

— *From “A Proposal for Restructuring the Montana University System”*

How might an affiliation model work for the University of Puerto Rico?

Affiliation in this context would mean retaining the board of governors for the University of Puerto Rico, but administratively aligning smaller UPR units under UPR Mayaguez or UPR Rio Piedras to attain cost savings and efficiencies. The UPR Medical Sciences Campus would likely retain its current status. The heads of the affiliated campuses (currently called chancellors) would report to the chancellor of UPR Mayaguez or UPR Rio Piedras. The assignment of affiliation with UPR Mayaguez or UPR Rio Piedras and the degree to which affiliated campuses are integrated structurally and programmatically with the two lead institutions could vary by institution and over time. But a single accreditation for affiliated institutions, full student transferability, greater collaboration among faculty in academic programs, and a common course-numbering system should be ultimate goals to benefit students, reduce costs, and reduce the need for several management positions.

Affiliation would entail many changes for each of the smaller units, compared to their current relationships with the president, the central administration, and the board. An affiliation relationship creates a different relationship for campuses in an essential way—rather than being led by the UPR president, the campus heads of the affiliated institutions would be led by the chancellors of UPR Mayaguez and UPR Rio Piedras, who, in turn, would report to the UPR president. There would be no direct reporting relationship of the affiliated campus heads to the president or the board. In addition, rather than the central administration staff serving each of the affiliated campuses in the UPR System, the UPR Mayaguez and UPR Rio Piedras administrations would provide most of the planning, budgeting, and other oversight and service functions for their campuses. The campus heads of the affiliated campuses would likely have diminished authority in many areas, as they would no longer be the ultimate decision makers, if indeed, they ever were.

The Consolidation Model in Practice—the University System of Georgia

The University System of Georgia is one of the largest in the country, with some 30 institutions including four substantive research universities, four large comprehensive universities, nine state colleges, and 13 smaller colleges. Total enrollment is above 300,000, and the combined system budget exceeds \$8 billion. Although much larger than the UPR, the experience of the Georgia system in consolidating institutions is worth study because it illustrates a systematic pathway to merging pairs (or conceivably, trios) of regional campuses.

Governance in the Georgia system includes a board of regents with 19 members, one from each of the state’s congressional districts, plus five statewide or at-large members. The chancellor is the chief administrative officer for the system, and is appointed by the board and serves at its pleasure. Board members are drawn largely from the business and public service communities; current members include a large number of senior business executives. No faculty

or student members are listed on the board of regents' roster, and the faculty are not unionized. The current system head has taught within the system, served as a member of the legislature, and been active in public policy circles within the state.

Beginning in 2012, the regents established a plan to merge or consolidate eight institutions that were located fairly close to one another and offered the possibility of eliminating duplicative programs and better aligning complementary ones, under the belief that they would operate more effectively with a single executive. Recently, the regents approved an additional consolidation, reducing 10 institutions to five. The merged institutions included two-year colleges, state colleges and comprehensive colleges with baccalaureate and masters offerings, and the specialized Georgia Health Sciences University and Augusta State University that were consolidated into Augusta University.

As noted earlier in this report, the goals for these mergers included cost savings but went even further to emphasize increased educational attainment, higher levels of access, reducing duplication, seizing potential for scale economies, contributing to regional economic development, and streamlining administrative services.

Relevance to Puerto Rico

Perhaps most useful to UPR, however, are the important role of the board and the methodical approach to planning that Georgia has followed. The changes in Georgia were initiated by and continue to be driven by the board. To be sure, the system head is charged with effectuating the consolidations, but the board plays a key role in monitoring progress, voting to approve the mergers, and making additional changes, such as in the names of institutions as they develop.

A second key feature of the Georgia Consolidation Model is the methodical, inclusive, and intentional approach to planning each merger. The following steps illustrate this model:

1. The process begins when the board formally announces its intention to combine specific institutions.
2. A special board committee oversees progress on each merger on behalf of the entire board.
3. The system head and his or her staff guide the process of consolidation, with regular participation of stakeholders at the institutions to be combined.
4. A plan with timelines, milestones, and demonstrable outcomes is fashioned for each merger.
5. Regular communication with and ultimate approval by the regional accrediting body (the Southern Association of Colleges and Schools) are key elements of the process.
6. Board action is the final step in the consolidation process, although subsequent major changes also require board approval.

The lesson from Georgia is that while a methodical plan is essential, it is not sufficient to ensure that two institutions will be effectively combined. Attention to the human side of mergers is equally important. An insider in the Georgia system who has been intimately involved with the consolidations offers these critical success factors:

1. Courageous, engaged, experienced leaders on the board, among executive administrators, and at each campus are essential.
2. Transparency must be maintained, especially when some of the messages will lead to uncomfortable change.
3. Savings from administrative streamlining should be directed to some aspect of student benefit and success.
4. The change schedule must take into account the requirements of continued accreditation and the needs of other regulatory bodies.
5. Groups of people on each campus need to be incentivized to “own” the process and the new institution.
6. Practical aspects demand attention. The answers to these questions must be yes: Could students register? Did students receive their financial aid? Did employees get paid?

A Cautionary Note

Restructuring a system is a process fraught with potential landmines. The experience of those who have led these attempts at change suggests that the benefits are easier to imagine than achieve; the process itself distracts participants from the core work of teaching, learning, and research; and achieving positive answers to the three questions in item six above is essential before the benefits of streamlining, collaboration, and cost-saving can be realized.

In general, the restructuring that promises to achieve the most results with the least disruption is the preferred option. Thus, careful study and conversation on the part of the board and its executives, as well as faculty, staff, and student leaders, must precede the decision as to which model, or combination of models, if any, should be pursued by the University of Puerto Rico. While there is no prescribed timeline for these changes, 12 months from board endorsement to completing the change is a reasonable period. Various combinations of models—consolidating pairs of regional campuses and affiliating them with one of the larger campuses, for example—represent a possibility, although it is a more complex undertaking than either the Affiliation or Consolidation models alone can achieve.

The near-term goals of any reorganization are the practical ones. Are students registered and taking classes? Are faculty and staff receiving paychecks? Are MSCHE and other accrediting bodies on board? Have total costs declined and will they continue to do so? However, attention must be paid to the longer term goals as well. With this change, are we investing more in the top priorities for students and Puerto Rico? Are we making more academic programs available at lower costs than before? Is the university serving communities in more comprehensive and effective ways than prior to the change?

IV. Actions to Reduce Costs, Improve Administrative Efficiencies, and Focus Academic Programs and Services

Whatever organizational model the board adopts, changing the structure alone will not in and of itself yield the savings required to meet the expected shortfalls. Additional cost reduction

measures are required. The board, president, and the UPR System's financial leaders fully realize the importance in the near-term of sharply reducing cash outflows. The president and his financial team have examined reserves, major accounts, and fund balances to determine amounts available to meet the impact of Fiscal Year 2017 reductions. We understand that the president has swept balances in non-salary accounts. As the administration fully understands, freezing spending in discretionary areas such as non-essential hiring, travel, and capital costs is a necessary step, while the longer-term adjustments, some of which are noted below, are put in place. These short-term reductions demonstrate the kind of tough mindedness and prudence that will be required throughout the cost reduction process.

In this section, and the accompanying Appendix D, we identify a number of opportunities for reducing costs. We realize that the system's financial and operational professionals are quite knowledgeable in these areas and have studied and initiated many cost-reduction options. The report itemizes a number of opportunities for savings for two reasons: first, to highlight options that may not yet have been applied at the university; and second, to alert readers of this report who are not financial experts to the host of opportunities available to reduce unnecessary cost in this time when every dollar counts.

There are countless ways to create greater efficiencies on each campus and within the University of Puerto Rico. Taking full advantage of economies of scale and other efficiency measures can not only free up revenue for priority areas, it can provide efficiencies that benefit students, faculty, and staff. Many examples of savings generated by systems in Georgia and Mississippi are presented in Appendix D.

Examples of items from these lists include:

- Paperless pay stubs. These are seen electronically, which provides more information and saves postage and handling.
- Single student application forms. Students populate one form that is used on all other campus forms. Campuses can add additional questions.
- Electronic reimbursements for employees. This eliminates delays in obtaining reimbursements and reduces paperwork and handling.
- Procedures for efficient use of vehicles and electronics. These are simple steps everyone can take to cut costs.

Just having to-do lists is useless unless there is a plan for implementation. One good practice is to form a checklist, with campus involvement, from the items in Appendix D. Lists can be categorized under energy, human resources, physical plant, etc. The lists should then be sent from central administration to each campus for a board response to each item on the checklist. For those items not checked by each campus, an action plan with timetable should be submitted. System-wide items can be determined with a system task force guiding those plans.

The second category of reductions is more complex and requires the participation of more stakeholders. These must be initiated quickly if longer-term benefits are ever to be reaped. These include achieving administrative efficiencies and cost reductions; administrative services; academic program review and prioritization; and reductions in staffing levels.

Administrative Efficiencies and Cost Reductions

Outsource non-academic functions

If the UPR System's essential business is education, research, and service, it follows that many support functions, while necessary, do not need to be provided by the system or the campuses themselves. Often, private vendors who specialize in these services can provide them at lower costs while offering continued employment to current staff. We understand that system leaders have engaged in serious review of opportunities to outsource and have taken action where possible and appropriate. In general, there is potential for outsourcing in areas including food service, residence halls, and travel services as well as campus maintenance and custodial services. We also recognize the importance of worker rights reinforced through collective bargaining agreements. One approach to honoring the system's obligations to its employees while reducing costs is to require continued employment as part of any outsourcing agreement.

Monetize marketable assets

As we understand it, the system has inventoried its assets that might be monetized and has sold off some of them. Continued review of assets may well reveal additional facilities that have value in the market and need not be owned or managed by the system. Examples could include parking lots, unused and underused buildings, and usable equipment that is no longer required for needs within the system. Selling off these assets yields one-time income, but also frees up the system from the costs of overseeing and maintaining facilities, equipment, or real property that is not required to serve its mission. It is fortunate that the system is apparently well along in this process.

Administrative Services Review

LEAN analysis

In higher education, LEAN methodologies can be applied to streamlining administrative and academic processes to produce lower-cost operations and better service to students. LEAN principles go back decades and derive from manufacturing practices developed by Toyota. Today, this approach continues to serve as a useful tool when applied to a myriad of business processes beyond auto production. For example, the University of Washington, a major research institution with a budget in excess of \$8 billion, recently applied LEAN principles to reducing its substantial administrative processing costs.

Academic Program Review and Prioritization

Over time, all organizations add programs and services that no longer serve their original purpose or simply can no longer be afforded. This is especially true at universities, where academic programs and departments, once added, seldom depart despite changes in the discipline, demand from students, or the availability of resources. A fiscal crisis affords the opportunity to examine these programs to determine their relative importance to the campus, UPR System, and the commonwealth; to assess options for providing them in a less costly way; or to discontinue them.

There is no underestimating the difficulty of this process. The intellectual dimension of selecting and applying criteria accurately is itself arduous. Even more so is the human response as

faculty, staff, and students ally with alumni to fight to preserve treasured programs. However, as difficult as the process is, a thoughtful and fair-minded approach to program review should be preferred to a haphazard process in which the least-well-defended programs are cut in favor of those with an energetic advocacy group.

The essential guide for program review and prioritization is Robert C. Dickeson's *Prioritizing Academic Programs and Services: Reallocating Resources to Achieve Strategic Balance* (Jossey-Bass, 2010). His criteria for distinguishing among essential programs that must be preserved and highly beneficial programs that deserve retention, albeit perhaps at a reduced level, if resources permit, are worth repeating here:

1. History, development, and expectations of the program
2. External demand for the program
3. Internal demand for the program
4. Quality of program inputs and processes
5. Quality of program outcomes
6. Size, scope, and productivity of the program
7. Revenue and other resources generated by the program
8. Costs and other expenses associated with the program
9. Impact, justification, and overall essentiality of the program
10. Opportunity analysis of the program*

**This criteria gives program leaders the opportunity to suggest additional benefits or opportunities of the program such as merger with a complementary or similar program elsewhere in the campus or at another institution.*

In some cases, it might be determined that a program is no longer needed or desired, but the lower-level courses in that discipline are serving a real purpose and are therefore kept.

The purpose of this review is to possibly shift valuable resources to programs of strength or to needed programs to advance the commonwealth. Perhaps the most important, and the most difficult, undertaking to meet the financial crisis will be program review and prioritization. Reductions are inevitable, whether they are based on sound reasoning or simply across the board, or opportunistic; these are choices for the board to make.

Reductions in Staffing Levels

As with program review, there is no shortage of difficulties in reducing staff. The government has mandated that in spite of the fiscal realities, there be no layoffs of currently employed personnel. In addition to the job security benefits offered to current employees, by removing the anxiety over potential job loss, this principle permits greater participation in the change process. There remain several options for lowering staffing levels over time, including:

- Early retirement programs with a continuation of health insurance benefits;
- Phased retirements that allow staff to transition out over a two- or three-year period;
- Job sharing, wherein two employees find it convenient to work part time on a single position; and
- Attrition and reassignment, in which vacant positions remain unfilled or are assigned to another current employee.

V. Strategies to Accelerate Growth

There are several compelling reasons to pursue growth strategies. The reduction in government support is the most obvious. Replacing that lost income with revenues from other sources will enable the UPR System to continue its work with fewer of the painful reductions outlined in the first section of this report. A second reason not yet fully recognized among many of our interviewees is the growing presence of competition from private institutions.

The UPR System needs to embrace the realities of its competitive position in the marketplace of higher education. The historic guarantee of 9.6 percent of the government's budget, a practice now abandoned in fact if not officially, has bred an attitude of complacency no longer justified. We heard frequently that the private and proprietary institutions in the commonwealth offer no significant competition since their tuition is substantially higher and they do not offer the full range of graduate and professional programs.

The reality is that the independent sector is catching up fast, and in some fields may well overtake the UPR System in the foreseeable future. This competition poses challenges to the university to be sure, but it also jeopardizes the island's ability to offer affordable, high-access, public, post-secondary education to large numbers of students. According to the most recent data available in the Integrated Postsecondary Education Data System (IPEDS), the three private systems in Puerto Rico collectively enroll more students than the UPR System—97,793 compared to 57,369. Additionally, it is noteworthy that enrollment in the UPR System declined from 2009 to 2013 by about 13 percent (IPEDS data, Total Enrollment Selected Years, 2009-2013).

IPEDS 2013 enrollment counts in the largest private systems continue to increase in spite of markedly higher tuition costs, including at Ana G. Mendez University (44,338), Interamerican University of Puerto Rico (42,627), and Pontifical Catholic University of Puerto Rico (10,828).

Competition in the fields of law and engineering provide early signals of what is likely to become a trend. Of the three law schools in the commonwealth, the Interamerican University of Puerto Rico reports slightly higher pass rates on a recently administered bar examination, and both it and the Pontifical Catholic University of Puerto Rico School of Law present only moderately lower entrance requirements. The UPR Mayaguez campus hosts the premier engineering school, with broad offerings up through the doctoral level and impressive placement rates, especially on the mainland. Yet there are rivals here, as well. Two other institutions hold limited accreditation by the Accreditation Board for Engineering and Technology (ABET) and charge only modestly higher tuition. To be sure, the rival private institutions presently are ranked substantially lower than UPR Mayaguez, an important factor in the competition for students and placement rates.

The point is that entrepreneurial private institutions are exercising their competitive advantages. Their cost structures are lower than the UPR System, and their tuition income is proportionally higher. They do not rely on the diminishing pool of government support. In many cases, their quality appears to be improving. Perhaps most importantly, their leadership does not turn over with each election cycle. Absent the kind of concerted action recommended in this report, the size and qualitative advantages of the UPR System may diminish in the face of this competition.

The good news is that there is ample opportunity for qualitative and quantitative growth for the UPR System. The chief opportunities lie in adjusting tuition policies; improving student retention rates; developing more and charging more for executive education, professional development, and continuing education; selective pursuit of externally funded (government and corporate partnerships) research projects; philanthropy; international marketing, especially to students seeking U.S. accredited programs in Spanish; and online education. These opportunities are explored below.

Improving Student Retention and Graduation Rates

Ensuring student success is a major goal for every higher education system on the mainland. The IPEDS 2013 six-year graduation rate for first-time, full-time undergraduate students who began their pursuit of a bachelor's degree in the UPR System was 40.35 percent, compared to the U.S. national average of 59 percent. The IPEDS data does not include part-time and transfer students and most certainly undercounts the number of UPR graduates, which are shortcomings in its reliability. Although a complete picture of current rates of student progress in Puerto Rico were not available at the time of this writing, it is a safe assumption that the UPR System could do better, just as other systems seek to improve their rates. To be sure, low family incomes and outmigration present stiff challenges to improving retention in the university. However, other institutions with similar student profiles have achieved higher rates, and their practices are worth examining.

Increasing student retention and graduation rates is important for each institution in the system and for its students who are struggling to complete a degree. It is our understanding that a board certification was approved on student success, retention, and timely graduation. Continued monitoring of institutions' progress is essential, as well as the consideration of board-approved incentives for institutions to improve completion rates. Retaining and graduating greater numbers of UPR students will also improve the financial bottom line.

Adjusting Tuition and Fee Policies

Tuition increases should be the last revenue option after cost-reduction strategies, efficiencies, and other revenue options are attempted.

Clearly, the question of adjusting tuition and fees must be approached with diplomacy and caution in Puerto Rico. In the past, the prospect of tuition increases led to student demonstrations, strikes, closures throughout the system, sanctions from accrediting agencies, and damage to the system's reputation. In addition to concerns over student opposition to any increase, the principle of maintaining the University of Puerto Rico as the affordable alternative on the island is one worth preserving. However, some adjustments to current tuition and fee policies are necessary to replace lost government income and to ensure continued affordability. If cleverly designed to take full advantage of federal student aid policies, these adjustments may in fact improve access and opportunities for lower-income Puerto Rican students.

Topics that deserve serious consideration by and with student leaders and their advocates include:

- Demonstrating that other, non-tuition, efforts and sacrifices are being made to generate revenue;
- Committing to transparency in the tuition-setting process;
- Petitioning the government for a substantial increase in its financial aid for lower-income students;
- Adopting a program of gradually increasing tuition across the board while simultaneously increasing need-based student financial aid from tuition revenues to preserve access for lower-income students;
- Adopting more competitive pricing for non-resident students attracted to a superior 11 campus UPR System with U.S. accreditation and Spanish as the language of instruction;
- Differential pricing for selected credit and non-credit continuing education, professional development, and executive education programs; and
- Differential pricing for selected graduate and professional programs whose graduates are likely to enjoy high incomes.

Professional Development, Executive Education and Continuing Education

Currently, each institution within the UPR System hosts one or more units that offer credit and non-credit courses in this area. As we understand it, the only restrictions on pricing are what the market will allow. The institution retains this revenue; it does not accrue to the coffers of the central administration. Chancellors should be strongly encouraged to expand these initiatives. The system role here would be to manage competition among institutions to prevent excessive duplication, but otherwise to encourage an open market for continuing education and professional development.

Externally Funded Research

Recent concerns about the time spent accounting for federally funded research notwithstanding, the UPR System has a history of productive research and the facilities to compete for more federal and corporate dollars in this area. There is some potential for commercializing university research through agencies following the WARF (Wisconsin Alumni Research Foundation) model, which secures patents and licenses for practical applications of university research, especially in health fields. The UPR Medical Sciences campus and the UPR Río Piedras campus might benefit from a single such unit, as one does not already exist.

Revenues from faculty research can be used to support investments in staff and infrastructure that are unlikely to be underwritten by the government. Empowering scientist-entrepreneurs in this space and freeing them as much as possible from unnecessary restrictions should be the order of the day. Returning to lead scientists a substantial percentage of any revenues from commercialization can be a powerful motivator for further entrepreneurial work.

We understand that efforts to gain revenue from university research in the past have met with very modest success. However, we are also told that work is underway to examine those earlier attempts to understand what worked and what did not as a prelude to launching more promising initiatives. We are also encouraged to learn of the collaboration between UPR faculty and the Puerto Rico Science, Technology, and Research Trust. Immediate returns to commercializing research may be unlikely, but in the longer term, research could contribute to the self-sustaining university.

Philanthropy

Although Puerto Rico lacks a tradition and culture of philanthropy to educational and cultural institutions, there is no reason to delay establishing or expanding the development function. The UPR System could establish a single, 501(c)(3), public university system-related foundation to secure and manage the corpus and to allocate income from investments to campuses for purposes according to donor wishes. Each campus would have its own account within the foundation. The advantage of one foundation would be to maximize the potential for income from foundation assets. However, the responsibility for raising funds should lie, in most cases, with the individual campuses that are apt to have the warmest relationships with alumni and donors. The exception to this pattern would be cases wherein a donor wishes to contribute to a system-wide initiative.

Online Education

After attempts at distance education some two decades ago, the UPR System is coming late to the online educational market. This timing affords the advantage of being able to choose from the most successful models and partner with the most reliable providers. The different models for system leadership in the area include managing all online education centrally, naming a lead or host campus, or allowing each campus to develop digital education as it wishes. We recommend that the UPR central administration manage the digital platform, set quality standards, support training and development for faculty and staff, and manage competition (with a light hand). The campuses should be encouraged to develop online courses and degree programs in Spanish where they have unique or distinctive offerings. Partly because of their greater development costs, online courses merit higher tuition and fees.

Conclusion

The University of Puerto Rico has a proud history of serving the people of the island with affordable, high-quality academic programs. Generous public support has enabled the university system to develop and offer a broad range of high-quality academic degrees and to graduate thousands of well-educated students. However, Puerto Rico faces an economic crisis that requires the university to change and to do so fairly quickly. This report recommends that the university develop a more-effective shared governance process; continue to assert leadership, especially in bringing about demonstrable results on the business side; consider changes in the structure of the system to render it more efficient and effective; reduce costs; and develop both short- and long-term growth strategies. The university leadership—the board, the president, and the chancellors, in particular, must engineer these changes in concert with their faculty, staff, and student stakeholders. The recommendations and suggestions in this report offer guidance

in this process. However, the university needs to own the change process if it is to enjoy success. The AGB team is confident that the university and its leaders are up to the task.

Appendix A: Project Overview

The Association of Governing Boards of Universities and Colleges (AGB) and its Ingram Center for Public Trusteeship and Governance is collaborating with the University of Puerto Rico (UPR) for a study with the UPR central administration, as commissioned by the university's Board of Governors (BOG).

The purpose of the study is to seek the proper alignment of the goals of the system, work of the central administration, and academic missions of the eleven unit campuses and affiliated auxiliary organizations by ensuring that the resources of the central administration are used efficiently and effectively, and that the central administration's responsibilities for providing system-wide strategic leadership are achieved. The ultimate goal of the study is to further advance the work of the UPR System and its campuses to effectively serve the students and citizens of Puerto Rico.

The AGB Ingram Center project consulting team will consist of Terrence MacTaggart, Richard Novak, and Thomas Meredith. All three are AGB Senior Consultants and are currently or have been AGB Senior Fellows. Collectively, they have many years of experience working in and studying university governance and administration, with extensive experience with public university systems. In addition, Elizabeth Alvarado, Associate Director for AGB Consulting, and Cristin Toutsy, Director of Public Policy Analysis and Public Sector Programs for the AGB Ingram Center, will provide research and administrative support for the project team.

The AGB consulting team will examine the functions of the UPR central administration consistent with the board's expressed desire "to optimize the use of resources available to UPR by restructuring processes and institutional practices," as explicated in Objective 6, Strategy 6 of Certification No. 145, approved by the board.

The desired and achievable outcomes of the project include:

- increasing the cost effectiveness of the central administration;
- reducing duplication of functions and services;
- improving measurable financial and educational outcomes;
- improved working and reporting relationships;
- a better alignment of the goals of the system, work of the central administration, and missions of the eleven campuses and affiliated auxiliary organizations;
- an enhanced capacity for the central administration to provide system-wide strategic leadership; and
- a more strategic relationship between the central administration and the board.

Appendix B: AGB Team and Staff Biographical Information

TERRENCE MACTAGGART

Dr. Terry MacTaggart is an experienced leader and scholar in higher education. His consulting and research work focuses on higher education leadership and policy, strategic planning, institutional advancement, trustee development and leadership evaluation. He has served as a faculty member and administrator at several public and independent colleges and universities where he has led or participated in substantial institutional transformations. He has held the Chancellor's position at the Minnesota State University System and on two occasions at the University of Maine System.

Dr. MacTaggart has served as Chair of the Commission on Institutions of Higher Education (CIHE) of the New England Association of Schools and Colleges (NEASC), and has led multiple visiting teams for several regional accrediting associations. He has served as a Fulbright Scholar to Thailand and to Vietnam as an expert on accreditation and quality assurance.

*His research and publications focus on governance, improving relations between institutions and the public, and restoring institutional vitality. His most recent book, *Leading Change: How Boards and Presidents Build Exceptional Institutions*, fills a significant void in leadership literature and focuses on the changing level of board engagement. This book examines 18 institutions, across the spectrum of higher education, at which the board played a significant collaborative role with the president, the leadership team and the faculty to lead change. Another best-selling book, published by ACE/Praeger in 2007, is titled *Academic Turnarounds: Restoring Growth and Vitality to Challenged American Colleges and Universities*. With James Mingle, he authored *Pursuing the Public's Agenda: Trustees in Partnership With State Leaders*.*

*In 1996, Dr. MacTaggart served as the editor and lead author of *Restructuring Public Higher Education—What Works and What Doesn't in Reorganizing Public Systems*. Two years later he produced *Seeking Excellence Through Independence*, which focuses on rebalancing campus autonomy and accountability in order to achieve better results. In 2000, he wrote, along with Robert Berdahl, a study of the partial privatization of public institutions entitled *Charter Colleges: Balancing Freedom and Accountability*. He is currently preparing a book on high functioning boards of trustees.*

Dr. MacTaggart's academic credentials include doctorate and master's degrees in English Literature from Saint Louis University, a Master of Business Administration degree from St. Cloud University, an honorary doctor of law degree from the American College of Greece, and membership in Phi Beta Kappa.

THOMAS MEREDITH

Dr. Thomas C. Meredith has served as a university president and as the head of three university systems. Most recently he served as Commissioner of Higher Education for Mississippi's university system of eight universities. In January 2002, he was appointed chancellor for the University System of Georgia, responsible for the state's 34 public colleges and universities. Prior to this appointment, he served as chancellor of the University of Alabama System, as well as president and professor of education at Western Kentucky University. He was also a vice chancellor at the University of Mississippi. He began his career as a high school teacher and later served as a high school principal. Meredith consults in the areas of presidential mentoring, development and performance appraisal (more than 70 presidents have reported to him);

presidential compensation; leadership training; board development and self-evaluation; board relations; and multi-institutional system matters.

Dr. Meredith has served on numerous educational and corporate boards. He was president of the National Association of System Heads (NASH), an organization made up of the chief executive officers of the 52 public higher education systems in the United States. He was also chair of the American Association of State Colleges and Universities (AASCU), the first head of a university system to serve in that capacity. Meredith has also served on the executive committee of the Southern Regional Educational Board (SREB) and has served as the chair of the Council of Presidents in both Alabama and Kentucky.

Dr. Meredith holds a baccalaureate degree from Kentucky Wesleyan College, a master's degree from Western Kentucky University, and a doctorate in Education from the University of Mississippi. He completed the Institute for Educational Management at Harvard University and the Higher Education Roundtable at Oxford University. He holds two honorary doctorates and has been recognized by his alma maters for his achievements including the naming of a building for him at Western Kentucky. Dr. Meredith was inducted into the Alabama Academy of Honor (100 members) and headed the governor's task force on developing and implementing a long-term strategic plan for economic development in that state.

RICHARD NOVAK

Mr. Rich Novak is a senior fellow with the Ingram Center for Public Trusteeship and Governance at AGB, serving to advance the association's interests and member needs in state and federal policy and board education. During his 21-year career at AGB, he served as the senior vice president for programs and research and as executive director of the Ingram Center. He has directed or co-directed studies in several states; overseen special programs on board and presidential leadership; led several initiatives on the effectiveness of public college and university governing boards; advocated for the reform of public board member selection practices; overseen the association's programs and research for both public and private members; and worked to incorporate environmental sustainability into governing board agendas.

Internationally, Mr. Novak has worked on governance and higher education projects for the Ministry of Higher Education in Egypt, the Ireland Higher Education Authority, and the Republic of the Marshall Islands. He has led or co-led several board workshops while at AGB and as a senior fellow and consultant, in addition to longer-term consulting assignments related to public trusteeship and governance.

ELIZABETH ALVARADO

Ms. Elizabeth Alvarado is the associate director for consulting at the Association of Governing Boards of Universities and Colleges (AGB). In this capacity, she works closely with the vice president for consulting, assisting with the organization, administration, and delivering of a full range of consulting services to AGB members. Before joining AGB, Ms. Alvarado held a similar role working on the development of training programs and materials, board retreats, and board and presidential assessments for community college governing boards.

Ms. Alvarado is currently working on a doctorate in human and organizational learning at the George Washington University Graduate School of Education and Human Development. She

holds a master's degree in Latin American Studies from the New York University Graduate School of Arts and Sciences and a baccalaureate degree from the S.I. Newhouse School of Public Communications at Syracuse University.

CRISTIN TOUTSI

Ms. Cristin Toutsu is the director of policy analysis and public sector programs for the Ingram Center for Public Trusteeship and Governance at the Association of Governing Boards of Universities and Colleges (AGB). For over seven years, she has specialized in collaborating with public governing and coordinating boards to enhance board performance and policies in pursuit of governance best practices and institutional, system or state goals for higher education.

Ms. Toutsu directs the Center's statewide initiatives, which include annual statewide programs for board members and trustees and customized consulting and technical services for public two- and four-year governing systems, coordinating boards and other state higher education agencies or offices. She produces resources focused on public board structures and tracks state policies and legislation affecting institutions and systems.

Before coming to AGB, Ms. Toutsu served as a Governor's Fellow for Virginia Governor Timothy Kaine in the Office of Commonwealth Preparedness and assisted in the development of the Governor's Campus Safety Conference for colleges and universities, which occurred after the mass shooting at Virginia Polytechnic Institute. She also worked for the Finance Secretariat and the Department of Planning and Budget on state fiscal policies and funding proposals for public colleges and universities in Virginia. Prior experience includes three years as the Coordinator of the President's Leadership Program at Christopher Newport University. Ms. Toutsu holds a master's degree in Higher Education from the College of William and Mary and baccalaureate degrees in Political Science and Governmental Administration from Christopher Newport University.

Appendix C: List of Individuals Interviewed

Board of Governors

1. Chairman Jorge Sanchez Colon
2. Juan Acosta Reboyras
3. Carlos Perez Diaz
4. Gloria Butron Castelli (Faculty Representative)
5. Edgard Resto Rodriguez (Faculty Representative)
6. Christian Arvelo Forteza (Graduate Student Representative)
7. Harold E. Soto Fortuno (Undergraduate Student Representative)

UPR President

8. President Uroyoan Ramon Emeterio Walker Ramos

UPR Advisory Group

9. Efren Rivera (former Dean of the School of Law UPR Rio Piedras)
10. Dolores Miranda (former Department Chair of Psychology at UPR Rio Piedras, Chair AUP, and Governing Board member)
11. Frankie Martinez (former Dean of Administration at UPR Rio Piedras and Director of Budget and Finance at UPR Central Administration); Dean of Academics at UPR Mayaguez Jaime Seguel (former Interim Chancellor at UPR Mayaguez)
12. Ida de Jesus (former Planning and Development Director at UPR Central Administration, Associate VP of Academics at UPR Central Administration, Dean of Social Sciences Faculty, and Governing Board member)

UPR-Mayaguez Campus Academic Senate

13. Juan C. Martinez Cruzado
14. Jose A. Martinez Cruzado
15. Carlos U. Pabon; and Hector J. Huyke

UPR Chancellors

16. John Fernandez Van Cleve (Mayaguez)
17. Palmira Rios (representative, Rio Piedras)
18. Otilio Gonzalez Cortes (Arecibo)
19. Nelson Arnaldo Vera Hernandez (Aguadilla)
20. Margarita Fernandez Zavala (Bayamon)
21. Noel J. Aymat-Santana (Medical Sciences)
22. Leonardo Morales Tomassini (Ponce)
23. Awilda Nunez Sanchez (representative, Carolina)
24. Mario Medina (Cayey)
25. Efrain Vazquez Vera (Humacao)
26. Raquel G. Vargas Gomez (Utuado)

UPR Central Administration

27. Finance Director Norberto Gonzalez
28. Budget Office Director Basilio Rivera
29. Vice President of Academic Affairs Delia Camacho Feliciano
30. Vice President for Student Affairs Margarita Villamil Torres
31. Quality of Life Director Alba N. Suarez
32. Director of Admissions Belinda Cruz Valentin
33. Vice President Research and Technology Jose A. Lasalde Dominicci

Former UPR President

34. UPR School of Law Professor Antonio Garcia Padilla

Former UPR Central Administration and Chancellors

35. Celeste Freytes (former Vice-President for Academics and Interim President, current professor at UPR Rio Piedras)
36. Angel Vega (former UPR Finance Director 2013 – 2015)
37. Rafael Aragunde (former Chancellor UPR Cayey, current professor at Interamerican University of Puerto Rico)
38. Jorge Velez Arocho (former Chancellor UPR Mayaguez, current President at Pontificia Universidad Catolica de Puerto Rico)

Additional:

39. Jose Jaime Rivera (former President at Universidad del Sagrado Corazon (USC), current Commissioner for Middle States Commission on Higher Education)
40. Myrna Rivera, CEO of Consulitva Internacional
41. Lucy Crespo, CEO of Puerto Rico Science, Technology, and Research Trust

Appendix D: Selected Efficiencies

From the University System of Georgia (USG)

1. **Paperless Pay-Stub:** Employees who have payroll amounts directly deposited to their bank accounts, receive a paper pay-stub regarding deductions and deposits. Institutions such as University of Georgia and Georgia State University have gone paperless and implemented an electronic notification system. Employee gets an email with a link to a secure website where they can access not only the current payroll information but a history of payroll records as well. Saves paper and postage. This will be expanded to all System Model institutions.
2. **Electronic Funds Distribution for Students:** Each semester, institutions distribute millions of dollars in thousands of financial aid checks. This results in long lines, often in inclement weather, and the process is costly, labor intensive and has a time lag of a week. University of West Georgia and Kennesaw State University have implemented a paperless system where students can select a direct deposit option to their personal bank account. For students without a bank account, a debit card is issued through a vendor. Institutions wire funds to the vendor for all students, and the vendor transmits funds to the various bank accounts.
3. **Telecommunications Savings through Voice-Over Internet Protocol:** Institutions such as Southern Polytechnic have switched from a campus-based phone system to VOiP for telecommunications. The new system has many enhanced features: call waiting, caller id, and desktop software that enhances productivity, upgraded voicemail, and above all, students receive better customer service. This has resulted in annual savings of \$202,500 at Southern Polytechnic the first institution where we have at least one year of data. Several institutions have implemented new telecommunications capabilities and are planning to redirect the savings into their core academic programs.
4. **Auto Debit for Retiree Billings:** Each month, retirees are expected to pay the premium for their health insurance plan. This requires institutions to bill each retiree, and follow up with collections. There are approximately 10,000 retirees in the University System. This is a cumbersome and costly effort. Several institutions have now moved to auto-debit, where the funds are automatically deducted each month from the retiree's bank account. A new policy is being implemented to expand the procedure at other institutions.
5. **Creation of a 100% Wireless Campus:** Georgia College and State University has implemented a 100% wireless area network covering all campus buildings, all outdoor property, including lawns, tennis courts and swimming pool, a one-block perimeter around campus and several downtown restaurants. The network is available only to faculty, students and staff. The system has benefited the students by allowing computing anywhere in the network area, provided a match and leverage for a \$750,000 DOE "preparing tomorrow's teachers in technology" grant for the school of education, reduced the load on the traditional "computer labs" allowing students to check their email from the lawn, register online from the cafeteria and submit homework from the atrium.
6. **Single USG Application:** Applications for admission to institutions of the University System require common elements. A student who wants to apply to multiple

- institutions typically has to fill out the same information multiple times. The University System of Georgia, in conjunction with GSFC, is developing a single application form with standard data elements that a prospective student can fill out one time, and have it automatically fill in the information for all institutions that the student has selected. Also, the information will be transmitted electronically to the institutions saving time in data entry at the institution level. Each campus may add campus specific questions.
7. **Electronic Reimbursements for Employees:** When employees are on official travel or sometimes purchase items for official use, they are reimbursed from institutional funds. This was a paper-based process, with a check being written for every transaction. It required employees to then deposit the check before funds became available. Institutions such as Georgia State University have gone to a paperless system. Since the University's payroll office already has the direct deposit information for each employee, why not do the same for reimbursements as well? This initiative has saved paper costs as well as enhanced services for employees.
 8. **Internal Control Guide:** Georgia Tech's internal auditing department has created an internal control guide with recommended principles, best practices and procedures in 42 areas of risk including controls over financial transactions for use by all departments at the university, whether it is purchase orders, travel reimbursements or other transactions.
 9. **USG Data Warehouse:** A well-managed University System necessitates monitoring of the financial status of each institution. The data warehouse has enabled institutions to electronically feed monthly data to the system, to produce quarterly financial status reports that compares budget to actual data for each institution in the University System. This has saved extraordinary amount of manual work in compiling financial statements. The data warehouse is also being used to capture data on students, course offerings and courses taken and is being expanded to include faculty data with a similar reduction in work to compile reports from separate databases.
 10. **Central Hosting of Student Systems:** Rather than each institution of the University System having to incur the cost of hardware and operations for student systems, the Office of Instructional and Information Technology has begun consolidating operations and hardware at a central location, resulting in cost savings for institutions and the System.
 11. **Expansion of Bandwidth:** Until now, the University System has been obtaining telecommunications services from commercial providers using circuits that are custom to the provider's specifications that does not meet the needs of advanced research and education. The University System has now acquired access to approximately 1,700 route miles of dark fiber to support the PeachNet network, allowing the USG to supply ample bandwidth for instruction and administrative purposes, protect investment from market forces by locking in the price for future needs, and creating separate networks of sufficient speeds and quality for connection of institutions to national initiatives such as Internet2 and National Lambda Rail. This was accomplished within the existing allocated budget for data communications circuits. The benefits of this network could be expanded to include other educational entities if warranted.

12. **Electronic Student Transcripts:** When a student applies to any institution, a transcript of the student's academic history is required to confirm courses and grades. No admission decision can be made without the official transcript. It is a manual process, by which the student requests paper process to be sent to any institution. Beginning this fall, institutions will be able to exchange student academic transcript information electronically upon request, using a standard protocol. Benefits of the electronic transfer include reduced costs and time associated with printing and mailing official transcripts, facilitate ease of student transfers between institutions, and reduce the admissions decision response time for prospective transfer students. The work done for the University System can be expanded to the Department of Technical and Adult Education for minimal cost since they also use the same student administrative software as the University System.
13. **Enhancing access by providing four-year programs at two-year institutions:** This is a unique program that allows four-year institutions to offer four-year programs at two-year institutions, thereby broadening the reach and access of undergraduate programs to those areas and institutions where such programs are not offered. It is a cost efficient method of delivery of educational programs without having to invest in the setting up of four-year institutions at every location. The program can be responsive to specific needs of the area.
14. **Implement Grants Management System:** To support its strategic goal of enhancing its research program, the Medical College of Georgia has developed a grants management system to assist in managing all aspects of the sponsored programs - setting up grants, time and effort reporting and billing and receivables. The new system allows the institution to exercise excellent stewardship over all federal, state, and local funds received for research projects.
15. **Single Student Portal:** At Augusta State University, when a student first applies to the University, upon enrollment, a portal account is created for the student application. A notification is sent to the student with details of how to access the account. The account becomes the primary source of information throughout the student's academic experience. Several other institutions have also implemented this software including Georgia Tech, and this will become the standard for student portals at almost all other institutions.
16. **Online Student Evaluation System:** Each semester, students in the University System of Georgia routinely evaluate the course of study and provide feedback on course materials and the faculty. The student evaluation process is typically a paper-based process, with each student filling the bubbles on the scantron scoring sheet, which is a cumbersome process. Bainbridge College has implemented a new web-based solution that has a saving of nearly 120 man hours by eliminating the need to prepare forms and cover sheets, distributing forms, proofing and scanning returned forms. Accuracy has increased and students are now given a window of time - 2 to 4 weeks to complete the evaluation, and turnaround time to department chairs of the results is less than a day (down from several weeks).
17. **Self-Service Applications for Students:** An essential component of traditional student life is to apply for housing, meal plans and parking. All of these processes take time, often long lines in multiple offices for each of the services. Several institutions such as Georgia Tech and the University of West Georgia have developed web applications that allow students to apply online for these services. The application

- provides all available options to the student, for housing, parking and meal plan options. Wait list information is also available. The application is extremely beneficial to students and eliminates filling out paper forms and data entry, thus saving time and money.
18. **Chiller Check Program:** When a chiller in a building breaks down, repairing can be an expensive proposition. Logging data and monitoring it on an on-going basis is critical to identifying potential problems as they develop and recommend corrective action. University of Georgia has implemented a chiller check program using hand-held personal digital assistants (PDA) to electronically collect and transmit to a monitoring program. This has resulted in savings of \$30,000 annually.
 19. **Free On-campus Computer Repair Service for Students:** The student technology fee at the University of West Georgia funds a free computer repair service for students through Student Information Technology Services. Technicians diagnose a wide range of computer problems including hardware, software, spyware/adware, and computer viruses and worms. The staff comprises student technicians overseen by staff members from the IT department of the university. Students no longer have to use costly off-campus computer repair services.
 20. **Automated Federal Work-Study Payroll Process:** Students on federal work study program are authorized to work on campus within prescribed guidelines. The problem was that the financial aid and the actual payroll resided in two different systems, creating the need for manual reconciliation to ensure compliance with federal guidelines. Georgia Southern University developed a web interface that validated records on both systems, providing information in one place regarding amount of financial work study aid, hours worked, amount earned, amount allowed, and total hours allowed. This eliminated the need for manual reconciliation and accelerated the process of notifying students of their award status.
 21. **Freshmen Year Experience Programs:** To facilitate a student's transition from school to college, several USG institutions have special freshmen programs that are designed to improve retention rates. At Valdosta State University, the freshmen year experience program is a year-long program designed to maximize every student's potential to achieve academic success and to adjust responsibly to college life. Two key components are Freshmen Seminar and Learning Communities. The first is a two-credit course designed to help the students make the transition to college, including topics such as skills development, goal setting, time management, critical thinking and personal/professional development. Programs such as this have been instrumental in increasing student retention rates.
 22. **On-Line Appointment Scheduling for Health Services:** Georgia Tech, like several other institutions, offers health services to its students. The institution has developed an on-line appointment scheduling process which allows students to schedule and cancel appointments from their residence halls or anywhere else. There is no waiting on the phone during busy times nor is it necessary to make appointments during business hours. The process avoids waste of time and money when medical personnel have last minute cancellations and no-show appointments. Healthcare professionals can now see more students, decrease in no-show appointments, and better customer service.

23. ShareCare - free evening childcare for non-traditional students: East Georgia College has been attracting an increasing number of nontraditional students in recent years. One of the biggest hurdles for their nontraditional students was the lack of adequate childcare when the students attended classes in the evening. The College began a ShareCare program, which offers services for free. In return, students taking advantage are asked to volunteer at another time to help other students. The students are trained in CPR and first aid at a nominal cost. More than 38 students at the college have taken advantage of the services and contributed their time.
24. Outsourcing flexible spending administration: Flexible spending programs are offered to all employees in the University System of Georgia. The process requires employees to sign up for an amount from pre-tax dollars, and get reimbursed from the funds in accordance with federal guidelines. Claim forms are filed and checks written. A pilot project with four institutions will outsource the flexible spending administration process. The vendor will provide direct deposit reimbursement to the employee's account, and provide an online web inquiry system for status of claims, balances and amounts paid to date.
25. Electronic time-entry system: For certain categories of employees under the Fair Labor Standards Act, time sheets are required to account for hours worked and amounts paid. This can be a paper-intensive, manual process that employees have to complete every two weeks. The University System is acquiring an electronic time entry system to replace the paper-intensive process. Records are electronically fed into the payroll system for accurate payment for employees.

Energy Saving Proposals Requiring Little or No Cash Expenditures

Vehicles

- Gas for state vehicles can be saved by implementing the following practices:
 - Avoid driving in peak rush hour traffic.
 - Drive at ideal speeds - 55 or 60 mph.
 - Reduce engine idle time.
 - Remove excess weight from car or trunk.
 - Use energy efficient tires that are properly inflated.
 - Perform scheduled preventive maintenance.
 - Use lower octane fuel required for the vehicle.
 - Reduce the number of commuter and take-home vehicles.
 - Replace older inefficient vehicles with hybrid and/or energy efficient vehicles.
 - Encourage carpools and use logistical planning for fleet routes to avoid backtracking, or having two people in the same area for same purpose, etc.
 - Systematically replace inefficient gasoline powered campus vehicles with smaller, more efficient alternative fuel vehicles (battery or electric-powered).
 - Use police department bike and foot patrols.

Appliances

- Turn off computers, monitors, photocopiers, fax machines and printers at the end of the work day, or consider replacing with machines that include standby features.

- Use power strips for small appliances and office media centers (TV NCR/DVD). You can turn the strip off and avoid "phantom load" or energy use by appliances that are plugged in but turned off. Each digital readout and blinking light creates a phantom load that can account for up to 20 percent of energy use.
- Buy flat screen monitors; they use 50-80 percent less power. Flat screen monitors produce very little heat, thereby reducing cooling costs. Set all computer monitors to go into "sleep" mode after a few minutes of inactivity.
- Install free software from the Environmental Protection Agency that puts monitors in sleep mode when not in use. This can save \$0.85/kWh of power used by networks.
- Unplug equipment that drains energy when not in use, including cell phone chargers, fans, coffeemakers, desktop printers, radios, calculators, and other small equipment.

Lighting

- Retrofit incandescent or fluorescent exit signs with long-lasting, low-energy LED exit signs.
- Replace incandescent light lamps with compact fluorescent lamps (CFLs), wherever appropriate. CFLs use at least 66 percent less energy and last an average of 10 times longer.
- Consider removing excess fluorescent lights and installing reflectors. Lighter colored walls need less light.
- Clean dusty diffusers and lamps every 6-12 months for improved lumen output.
- Encourage campus community to turn off lights, when not in use (lunch, breaks, meetings, close of business).
- Use natural-lighting or day-lighting and turn off lights near windows when possible.
- Use task lighting.
- Install and use motion-sensor lights, especially in rooms that are empty for significant portions of the day such as storage rooms, utility rooms, break rooms, and restrooms.
- Use energy efficient outdoor lighting.
- Offices with sun-facing windows should turn their lights off during those hours when the sun can shine through at the brightest level.

Heating/Cooling/Water Systems

- Replace central inefficient steam system with efficient boilers.
- Implement boiler load management techniques.
- Check and maintain steam traps. In systems with a regularly scheduled trap maintenance program, a facility can save 2 percent of its total energy use and 10-30 percent of the boiler's fuel use.
- Listen for and locate air leaks in compressed air lines and equipment fittings. Repair the loudest leaks first. Repairing air leaks reduces the system's electrical usage by 15-40 percent.
- Eliminate heat losses from leaks and improper defrosting. This action can reduce refrigeration system energy use by 10-20 percent.

- Clean heat transfer surfaces frequently of indirectly heated systems, such as steam coils, radiant tubes, and electrical elements. This measure can save 5-15 percent of energy use.
- Clean air filters.
- Develop procedures for regular operation, calibration, and maintenance of sensors and controllers. Regular maintenance can result in energy savings of as much as 10 percent.
- Install small-scale HV/AC control upgrades and timers on air handlers.
- Install energy management systems that allow heating/cooling, etc., to be controlled from a central location.
- Set all water heater temperatures in buildings to 120°, unless a higher temperature is mandatory.
- Turn up the temperature in the refrigerator so food is still kept at a safe temperature.
- During the winter, set the thermostat to 68°F when the workplace is occupied and 65°F after business hours. During the summers, set the thermostat to 76° when the workplace is occupied and 80°F after business hours.
- Put clear plastic film over windows in the winter to keep the heat from transferring out.
- Close blinds during hottest time of the day, before leaving in the evenings, and especially on the weekends. Use blinds/curtains to block direct sunlight from entering the office during the summer months.
- Utilize energy saving devices (flow reducing shower heads, faucets, toilets, etc.).
- Use low-sloped roofing specified as high reflectance white.
- Use outside air to regulate inside temperatures.
- Use plants that are indigenous to our climate and region and that are hearty enough to need less watering, thus reducing water costs.
- Place trees and shrubs to reduce summer temperatures and to provide shading and wind breaks to buildings. Windbreaks can reduce wind by up to 50 percent and heating costs by 20-40 percent.
- Sign energy purchase agreements for natural gas to reduce cost.

Teleconference vs. Travel

- There are times when face-to-face meetings are necessary. Institute a "no-frills" policy for out-of-town meetings. Require sign-in sheets at out-of-town meetings and state why mission couldn't be accomplished by teleconferencing.
- Require employees to carpool when traveling for job-related purposes.
- Increase reliance on tele/video conference capability.

Work Week

- Implement a four-day work week, if possible, to meet the needs of your constituents.
- Stagger 10-hour work days so agencies are covered five days a week. There would be NO savings to state agencies; rather, the employees would benefit from the savings AND the constituents would still be served Monday through Friday.
- Schedule classes to maximize building occupancy and allow unused buildings to operate in "shutdown" mode.

Other

- Implement aggressive on-campus faculty, staff, and student recycling policies.
- Don't use the elevator if you are only going up or down one floor and you are able to walk.
- Use coffee mugs instead of disposable cups.
- Recycle paper.
- Create pedestrian core and relocate parking to the periphery of campus.
- Emphasize sustainability in terms of greenhouse gas reduction, and reductions in the use of natural gas, electricity, and water.
- Create energy management committee/council/office to address energy conservation issues.
- Become a member of the United States Green Building Council.
- Sign the "American College and University Presidents Climate Commitment."
- Commit to Energy Star accreditation on new equipment.
- Require periodic and documented training and retraining for employees for adopted procedures.
- Get employees involved with proposals for savings either state-wide or agency specific.
- Extend class day to increase the number of annual semesters to accommodate growth.
- List any energy efficiencies within building renovations/new buildings.
- Compare the costs of electricity, gas/heat, trash disposal, and water.

Appendix E: Board Expectations Example

An excerpt from the University of Wisconsin System's Statement of Expectations of the Members of the Board of Regents reads:

[Board] expectations are as follows:

To adhere to high standards of ethical conduct and to comply fully with laws relating to conduct of public officials and boards. This includes, but is not limited to:

- Avoidance of any conflict of interest and adherence to the standards of conduct for public officials, as set forth in the Code of Ethics. In the case of any potential conflict of interest, the Board member is expected to seek clarification. Where a conflict of interest is found to exist, the Board member must abstain from participating in the discussion and from voting on the matter in question.
- Timely filing of annual financial disclosure statements as required by the
- Code of Ethics.
- Full compliance with the Open Meetings and Public Records laws.
- Maintenance of confidentiality when appropriate.

University of Wisconsin System, "Statement of Expectations of Board Members," Regent Policy Documents, <http://www.uwsa.edu/bor/policies/rpd/rpd2-2.htm>, par. c.

Appendix F: Select Bibliography

- Academic Senate. (2013). *Certification Number 92-16*. The University of Puerto Rico Mayaguez Campus. PDF.
- Academic Senate. (2014). *Certification Number 14-32*. The University of Puerto Rico Mayaguez Campus. PDF.
- Academic Senate. (2014). *Certification Number 14-37*. The University of Puerto Rico Mayaguez Campus. PDF.
- Association of Governing Boards of Universities and Colleges. (2014). *Consequential Boards: Adding Value Where It Matters Most*. Washington, D.C.
- Berdahl, R.O. and MacTaggart, T.J. *Charter Colleges: Balancing Freedom and Accountability*. Boston, MA: Pioneer Institute for Public Policy Research.
- Cavanaugh Macdonald Consulting, LLC. (2014). *University of Puerto Rico Retirement System Actuarial Valuation Report*. Kennesaw, GA.
- Dickeson, R.C. (2010). *Prioritizing Academic Programs and Services: Reallocating Resources to Achieve Strategic Balance*. San Francisco: Jossey-Bass.
- Earnst & Young LLP. (2014). *University of Puerto Rico Financial Statements and OMB Circular A-133 Report on Federal Financial Assistance Programs*. San Juan, Puerto Rico.
- Earnst & Young LLP. (2014). *University of Puerto Rico Retirement System Audited Financial Statements and Required Supplementary Information*. San Juan, Puerto Rico.
- Espada, S, Berrios, N, & Vega, N. (2014) *UPR Annual Report 2013-2014*. University of Puerto Rico. PDF.
- IPEDS. Interpostsecondary Education Data System. U.S. Department of Education: National Center for Education Statistics. Retrieved from NCES: <http://nces.ed.gov/fastfacts/display.asp?id=40>.
- Krogstab, Jens Manuel. (2015, October 14). *Puerto Ricans leave in record numbers for Mainland U.S.* Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2015/10/14/puerto-ricans-leave-in-record-numbers-for-mainland-u-s/>.
- Krueger, A.O., Ranjit, T, & Wolfe, A. (2015). *Puerto Rico: A Way Forward*. Retrieved from <http://www.bqfpr.com/documents/puertoricoawayforward.pdf>.
- Ley De La Universidad De Puerto Rico*. 18th ed. University Of Puerto Rico, 2013. PDF.
- Meredith, T. (2014). Public University Systems: A Checklist for Success. *Trusteeship*. September/October. 30.
- Middle States Commission on Higher Education. (2011). *UPR Aguadilla Report Statement of Accreditation Status*. MSCHE Reports retrieved from

<http://www.msche.org/Documents/SAS/477/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Arecibo Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/479/Statement%20of%20Accreditation%20Status.htm>

Middle States Commission on Higher Education. (2011). *UPR Bayamon Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/479/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Carolina Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/480/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Cayey Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/481/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Humacao Report Statement of Accreditation Status*. MSCHE Reports. <http://www.msche.org/Documents/SAS/482/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Mayaguez Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/483/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Medical Sciences Campus Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/484/Statement%20of%20Accreditation%20Status.htm>

Middle States Commission on Higher Education. (2011). *UPR Ponce Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/485/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Rio Piedras Report Statement of Accreditation Status*. MSCHE Reports retrieved from <http://www.msche.org/Documents/SAS/486/Statement%20of%20Accreditation%20Status.htm>.

Middle States Commission on Higher Education. (2011). *UPR Utuado Report Statement of Accreditation Status* MSCHE Reports retrieved from

<http://www.msche.org/Documents/SAS/487/Statement%20of%20Accreditation%20Status.htm>

- Reforms Symposium for a New Puerto Rico. (2014, February 1). *The Time Is Now*. Mayaguez, Puerto Rico: Reforms Symposium for a New Puerto Rico.
- University of Puerto Rico. (2006). *Reglamento General De La Universidad de Puerto Rico 16 De Febrero De 2002, Según Enmendado*. 10th ed. PDF.
- University of Puerto Rico. (2015, September 1). *Admissions booklet*. 2016. Retrieved from <http://www.uprrp.edu/wp-content/uploads/2015/09/ManualdeAdmisionesUPR2016.pdf>.
- University of Puerto Rico. (2015). *Certification Number 145*. The University of Puerto Rico Board Governing Board. PDF.
- University of Puerto Rico. (2015). *Organizational Chart of the UPR*. PDF.
- University of Puerto Rico. (2004). *University of Puerto Rico Ten Challenges 2005-2015, An Agenda for Planning*. PDF.
- University of Puerto Rico. (2005). *University of Puerto Rico Ten Challenges 2006-2016, An Agenda for Planning*. PDF.
- University System of Georgia. (2012). "Recommended Consolidations." PDF.
- Value Advisory Group, LLC. (2014). *Evaluacion del Modelo Operacional de las Oficinas de Finanzas de la Universidad de Puerto Rico. Presentacion Comite de Finanzas 4 de diciembre de 2014*. San Juan, Puerto Rico.
- Working Group for the Fiscal and Economic Recovery of Puerto Rico. (2015, September 9) *Puerto Rico Fiscal and Economic Growth Plan, Pursuant to Executive Order 2015-022*. Retrieved from <http://www.bqfpr.com/documents/PuertoRicoFiscalandEconomicGrowthPlan9.9.15.pdf>