Strategic Challenges Confronting UWI, Mona

The University of the West Indies
Mona Campus

Strategic Challenges Confronting UWI Mona
An Analysis & Response

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October 1, 2003
The members, Professors Hickling, Kahwa, Munroe, Shepherd and Wint (chair), would like to express their gratitude to the Principal of the Mona Campus, Professor Kenneth Hall; Ms. Jennifer Cheesman, from the Office of Planning & Institutional Research; research assistant, Dr Romola Rodriques, from the Department of Chemistry; administrative assistant, Ms. Asenath Sharpe, from the Department of Management Studies; the Campus/University Librarian, Ms. Stephney Ferguson; and Assistant Registrar, Mr. Derrick Smythe, from Queens University, Belfast, for the assistance they provided in the conduct of the work of the Task-Force.

The faculties, student bodies and the WIGUT (Jamaica) and MONASA staff unions were invited to provide submissions to assist in the work of the Task-Force. The members thank those who responded to this invitation. The task-force also thanks the many individuals across the Campus, with whom members have had discussions over several years. We trust that these individuals, who may well see their observations reflected in this report, understand the lack of attribution.

- Academic Board Taskforce on Strategic Challenges Confronting the UWI, Mona
# Strategic Challenges Confronting UWI, Mona

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OVERVIEW AND RECOMMENDATIONS

Introduction

This is the report of the Task-Force established by (Mona)'s Academic Board in May 2003 to consider and provide a response to the strategic challenges confronted by the Mona Campus of the University of the West Indies, for presentation at the first Academic Board Meeting of the 2003-2004 academic year. Specifically, the terms of reference with which the Task-Force was charged are identified below:

- Identify the strategic challenges faced by UWI, Mona.
- Identify appropriate responses to these challenges based upon best practices.
- Make recommendations on specific areas of response, including programme development, cost efficiency, redeployment or resources.
- Identify the appropriate criteria for making adjustments.

The Strategic Challenges Facing the Campus

In order to understand the strategic challenges facing the Campus, the Task-Force gathered data on the current competitive position and performance of the Campus in relation both to its history and to comparator and competing institutions located around the globe. The result of this data gathering suggests the following strategic challenges facing the Campus. UWI, Mona is:

- Under-Performing
- Precariously-Funded
- Competitively-Challenged

**Under-Performing**

UWI, Mona faces performance challenges along several dimensions. Although it has increased student enrolments over the years, there are concerns that the quality of students and of teaching are highly uneven. UWI, Mona staff members are highly committed to, and involved in, public service, but there are key gaps in the scope of this service, and the level of service is under-promoted.

In the area of research and publication, the data are particularly disquieting. Publications per-capita at UWI, Mona are less in 2001-2002 than they were in 1970/1971. Further, whereas in 1981, UWI, Mona produced 0.025% of global publications captured in citation-linked databases, by 2002 that proportion had declined to 0.02%. With this decline, UWI, Mona's proportion of global publications has dropped below Jamaica's proportion of global GDP. The Task-Force argues that this relative under-performance at
UWI, Mona is linked to the fact that many of the Campus' processes are inefficient, its assessment and evaluation systems are weak, and its operations are insufficiently strategic.

- **Precariously-Funded**

  UWI, Mona's funding situation is alarming. In 2001-2002, the Campus received 69% of its funding from West Indian Governments, over 90% of which was received from the Government of Jamaica. The Campus receives 66% of the Government of Jamaica's tertiary education budget, with the remaining 34% divided among sixteen tertiary institutions. At the same time, the Jamaican Government spends far more on tertiary education than most countries.

  Over the 1995-1997 period, for example, Jamaica was the fifth highest spender on tertiary education as a proportion of GDP among all countries of medium of low human development on which the United Nations reports, even though its tertiary-enrolment ratios are low relative to those of many countries. All this is occurring while the Jamaican Government faces a budgetary crisis. The funding situation is further compounded by a prevailing view that education should be free of cost to recipients, and the limited experience and success of the Campus in research grantsmanship and endowment funding.

- **Competitively-Challenged**

  UWI, Mona faces significant competitive challenges. These arise from Jamaican institutions that have recently achieved university status; foreign universities with local face-to-face operations in Jamaica; foreign universities with local face-to-face operations in the Caribbean, including the 30 off-shore medical schools now operating within the region; and foreign-based institutions operating in traditional and cyber-space distance education modes. The challenges from these institutions will be even more invasive if those who seek further liberalisation of trade in educational services are successful in their efforts.

  The above challenges facing the Campus must be understood in the context of UWI, Mona being the undisputed leader in tertiary education in Jamaica, with a research record and an impact that is unmatched in the region. Not only has it produced influential leaders in all sectors of Caribbean society, but it continues to house a collection of intellectual assets that is world-class.

  It is this collection of world-class talent, presided over by the Campus leadership, which has to now take on, as a matter of urgency, the challenge of assuring a long-lived, high-performing future for the Campus in the face of these challenges. The entire Campus must recognise that the UWI, Mona "team" must appeal to the creative and
visionary elements within its community in order to attract funds; must work hard to improve productivity, especially research productivity, must convince the relevant constituencies of the value provided by its services relative to those offered by competing institutions, and must revamp the entire organisation around issues of leadership and performance in scholarship and fund generation. The Campus community, in its entirety, must be focused on strategic objectives, with each unit assessed based on performance in relation to a set of strategic indicators. Toward this end, the Task-Force suggests the following recommendations geared to achieving a long-lived, high performance future for UWI, Mona.

Summary of Strategic Recommendations for UWI, Mona

Based upon the analyses conducted, the Task-Force recommends that UWI, Mona should:

1. Establish a clear process for leading the vital process of strategic change on the Campus that is inclusionary and consultative, that includes an interface with the entire Campus Community, but that is driven by the top leadership of the Campus. The top leadership of the Campus needs to put forward a vision with respect to the strategic position of the Campus that goes to department levels, but which is complemented by a bottom-up process in which departments develop complementary strategic positions, and that is followed by on-going efforts at all levels to realise agreed-upon strategic positions.

2. Implement a process of strategic repositioning. This task-force advocates that the proposed position should reflect the institution's strengths, be cognisant of its weaknesses and the environmental threats, and be appreciative of the opportunities that beckon in a globalising world. This position would include a clear focus as a research-driven university, operating at global standards of excellence in research, graduate and undergraduate teaching, providing leadership within the Jamaican tertiary education system and across the globe in key areas related to Jamaica, the Caribbean, small states, people of colour and tropical conditions, while diversifying away from the current extremely significant reliance on governmental funding.

3. Diversify its funding sources by: lobbying for an income-contingent loan programme, processed through the Students' Loan Bureau, to support increased tuition fees; providing a nurturing environment and incentives for the development of revenue enhancement programmes; and developing a more proactive approach to endowment funding.

4. Encourage each department, centre, institute and faculty to identify the unmet service, research and training needs in its area of work, and establish entrepreneurial institutes or programmes to capitalise on these unmet needs, whether these unmet
needs are located in Jamaica, the region or within the Caribbean diaspora.

5. **Convincingly support new initiative development and boldly take the risk to establish novel institutions that break away from conventional moulds**, while allowing UWI, Mona to control the associated intellectual activity.

6. **Adopt systems for selecting, monitoring, evaluating and rewarding the performance of academic and administrative leaders and staff members that are consensus-based, transparent and equitable**, while requiring each staff member to define his or her role in the repositioned institution. The monitoring, evaluation and reward should occur, at a minimum, on an annual basis, with dear consequences, and a union-agreed sanctions policy, associated with the failure to perform at acceptable levels, while leading to dear incentives and rewards for superior performance. The monitoring and evaluation should apply at the level of the unit, and its leadership, and the staff member. The management of the institution and the unions on the Campus need to work together, as a matter of urgency, to implement best-practice systems in this area and to develop dear strategies to deal with accountability and responsibility of all staff. All academic leaders should be appropriately compensated in this new dispensation. Further, the systems developed should ensure no gender-based discrimination in the selection of leaders.

7. **Develop a plan to deal with the low relative scholastic output of UWI, Mona**, which is informed by an analysis of the mechanisms other universities have used to improve considerably their performance on global scholastic radars.

8. **Shift, in consultation with the Unions on the Campus, to an approach in which performance assessments play a role in staff remuneration and perquisites.** Some component of pay needs to be merit-linked, within existing pay categories, while perquisites such as sabbatical leave and study and travel grants need to incorporate a performance dimension.

9. **Improve the efficiencies of its processes.** There needs to be more effective central monitoring of strategically important processes, while the balance in the institution's systems of checks and balances should be such as to ensure that resources are not unnecessarily wasted on issues of minor importance. Efforts should be made to utilise the scarce talent and time of staff members as efficiently as possible.

10. **Monitor student-staff ratios carefully** to ensure that resources are used effectively, while ensuring that the environment for high quality education is not compromised. Deployment and redeployment of resources should be managed strategically, rather than through blunt instruments of across-the-board cuts or freezes. It may, for example, be necessary to fill professorial and other vacancies in some areas, while reducing establishment numbers in others.
11. *Rationalise programme offerings across the Campus* based upon the following criteria: staff-student ratios, staff productivity, internal and external demand for programme offerings and income generating activity and prospects.

12. *Enforce appropriate entry policies for students*, improve the institution's interface with top-performing student prospects, while continuing to focus on enhancing the educational experience of students through a broad and rigorous education, and various co-curricular initiatives currently being implemented, and other innovative approaches, in particular service-learning, designed to improve the educational experience and nurture long-lived loyalty to the institution by its students.

13. *Create a work environment that encourages staff loyalty and productivity.*

14. Ensure that appropriate measures are taken to encourage a better gender balance in our student and staff population, and that a full-scale examination is undertaken to ascertain why the top management and senior academic structure of the Campus is so male-dominated.

15. *Build on its existing institutional research capability to ensure that data are collected in a systematic and comprehensive manner about the competitive position of the organisation, organisational productivity and activities and structures in comparator institutions around the world to inform on-going strategic analysis at Campus, Faculty and Departmental levels.*

The remainder of the report provides the detailed data and analysis that informed the above recommendations.
STRATEGIC REPOSITIONING OF UWI, MONA

The Task-Force concludes that one of the fundamental strategic challenges confronting the Mona Campus is that of strategic positioning. One of the reasons that strategic positioning is such a challenge to the Mona Campus is that competition is an important driver of strategy. Thus, changes in the competitive landscape make a strategic orientation more critical than it has been in the past.

Obviously the competitive landscape has changed significantly in recent years, driven by the elevation of local tertiary institutions to university status and the globalisation of the educational product. The latter process is reflected in the entry of foreign universities to the region and the increased options available to Jamaican students provided through the proliferation in internet-based degree opportunities and through increased access to tertiary and high school educational institutions that are internationalising their student recruitment processes.

Apart from the increased competition, other changes in UWI, Mona's world dictate the current need for carefully focusing on the institution's strategic position. These include the fact that the world has moved, in recent years, from one dominated by state controls and activity to one that is more market determined, efficiency-focused and socially disintegrative. In this world, states are becoming less involved in financing various forms of economic activity, including education, and are demanding greater levels of efficiency in the institutions to which they provide financing.

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1 The University of the West Indies is probably one of the most successful examples of a University that straddles several national borders, although at the same time its regionality represents one of its inherent contradictions in that it is a state-owned institution that is owned by no state, since there is no body politic called "The West Indies." The focus of this paper, on the strategic challenges confronting the Mona Campus of the UWI, is not to downplay the importance of, or the challenges associated with, the regionality of the University, but to reflect the mandate from, and the scope of responsibility of, the UWI, Mona Academic Board.


3 Hickling-Hudson points out that the threat of globalisation creates two major problems for universities in developing countries: first, the intensification and expansion of global capitalism and the search for sophisticated niche markets; and second, the increasing powers of reach of communication technologies, the development of "offshore" educational activities and sophisticated twinning activities by wealthy developed societies. She concludes that the Caribbean is at a disadvantage in the drive to restructure higher education, constrained by resource shortages and by the traditions and embeddedness of colonial and neocolonial institutions, and suggests that university intellectuals in the Caribbean may need to de-link themselves from many of the modernist and post-modernist ideas of the twentieth century in order to appreciate the Caribbean's potential and to tackle the challenges faced by Caribbean tertiary institutions. See Anne Hickling-Hudson, "Globalization and Universities in the Commonwealth Caribbean," in Netty P. Stromquist & Karen Monkman, Globalization and Education: Integration and Contestation Across Cultures (New York: Rowman & Littlefield, 2000), pp. 219-236
State financing is also made more difficult because of the level of economic stagnation and the budgetary crises that affect many developing countries, including several of the countries of the Caribbean. The precarious nature of the financing of UWI, Mona is one of the most severe challenges dictating the need for strategic repositioning of the Campus.

At the same time, the incorporation of the language and concepts of the marketplace into various sectors, including education\(^4\), is reflected in students becoming more assertive in relation to their rights as customers. For better and for worse, greater exposure, not least of all to the processes of the information age, in a period of social decay produces a less deferential student and leads to more complex learning relations, relative to an earlier time. Further, as the world has shifted from a resource-driven to a knowledge-driven approach to development, more students seek to gain access to tertiary education, and the quality of education they receive is evaluated ever more carefully. Together, these changes create significant strategic challenges for UWI, Mona as the institution strives to adjust to environmental changes that are likely to lead to its long-lived success, while it resists others that could undermine its social and intellectual capital.

UWI has responded to changes in its external environment by adopting several initiatives, including the development of a strategic planning process, which saw its first visible outcome in the 1997 quinquennial plan. Much work has gone into the strategic planning process, and it has been quite useful in providing a platform for discussions about resource allocation and the prioritisation of educational activities.

On the other hand, however, the strategic planning process seems far more focused on planning than on strategic positioning. It is largely choice-less, eschewing the need for strategic trade-offs, or certainly not dearly identifying any trade-offs. The reluctance to pinpoint, particularly in a resource-challenged context, contradictions (even mutual exclusions) among multiple objectives - the plan has 9 strategic objectives, 136 indicators and 210 targets - invariably leads to trying to achieve most goals, to some, even satisfactory degree, but being able to achieve none to consistently world-class standards. Although the 2002 versions\(^5\) of the strategic plan was discussed at the faculty and campus levels, the process by which it was developed was top-down in its orientation, the trade-off challenge was insufficiently tackled and few members of staff feel a sense of ownership of the goals included therein.

\(^4\) Many staff at UWI, Mona, appropriately, resist the idea of taking the language and concepts of the marketplace too far. At one level, students are certainly customers of universities, but universities certainly ought not to be "in the business of selling degrees," nor of responding only to short-term market demand. But while this resistance is appropriate, if it extends to a total rejection of the concept of "a market in education" then it represents a potential weakness within the culture of UWI, Mona in the context of a changing external environment.

Indeed, the development of a top-down strategic plan is not synonymous with a process of strategic positioning. But neither can strategic positioning be "bottom up." Strategic positioning needs to iterate between different organisational levels. It also requires careful consideration of the institution's position within the global and national tertiary education system; a clear statement of this position that can be communicated internally and externally; and a concerted and organisational-wide effort to configure the institution's processes, systems and culture to support the proposed position.

To illustrate the challenges of strategic positioning and repositioning, and as a framework for the discussion of the set of strategic challenges confronted by UWI, Mona, the Task-Force sought to frame a strategic position for the Campus. Obviously, this represents nothing more than a starting point for discussion, given the importance of meaningful organisational-wide input into such an important matter.

To assist in framing a strategic position for the Campus, the Task-Force spent time gathering data on the current competitive position and performance of the Campus in relation both to its history and to comparator and competing institutions located around the globe. The result of this data gathering, some of which is admittedly anecdotal, can be captured in a series of stylised positions on the status of the Mona Campus, in the context of a more competitive educational environment.

- UWI, Mona as a Historically High Impact Institution
- UWI, Mona as an Under-Performing Institution
- UWI, Mona as a Precariously-Funded Institution

Mona as a Historically High-Impact Institution

The first stylised point is to recognise that UWI, Mona has generally performed quite well in relation to the objectives of its founders. Established as a research university geared to serve as the intellectual centre of the country and the region, in the tradition of the leading universities of the United Kingdom, it would, today, continue to be quite familiar to a founder with quinquagenarian foresight.

The institution has had a meaningful impact within Jamaica and the Caribbean. Outside the region world leaders, particularly from Africa and the African diaspora, have been keen to

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6 There have been but a few structured assessments of the impact of UWI, Mona, but they have tended to indicate that the impact has been significant. See, for example, Carl Stone "Public Opinion Perspectives on the University of the West Indies, Caribbean Quarterly, Vol. 29, Sep.-Dec., 1983, pp. 21-39; Carl Stone, "The Jamaican Public and the University of the West Indies," Caribbean Quarterly, Vol. 31, Sep.-Dec. 1985, pp. 31-49; Report on a Survey to Determine Attitudes of Employers and Business Executives in Jamaica to Mona and its Graduates, Corporate Affairs Research and Advertising (CARA), 2002, and Detailed Analysis and Report based on Stone Market Research Survey, 2002, CARA Ltd, January 2002.
Strategic Challenges Confronting UWI, Mona

associate with the institution. Of course, UWI, Mona has also been a part of the regional university structure that has produced seven sitting prime ministers within the region, and that has had a substantial impact on policy and exerted influence in every sector of regional society. Further, the infrastructural base of the institution, the compensation level of staff members and the support for research activity, though not currently meeting international best practice in any area, are highly commendable in a lower middle-income economy with a 2001 per-capita income of $2,720.

The Campus' achievements are particularly impressive when considered in the context of the challenges faced by some equivalent institutions founded in developing countries at around the same time as UWI, Mona. Many of these institutions have floundered on the problems of the resources required to support a research university. These resource challenges, in turn, have largely been linked to the problems of poor performing national economies.

Given the economic challenges faced by the Jamaican national economy over many years, the continued, if qualified, success of UWI, Mona in recruiting, training and retaining faculty of international quality, in remaining the institution of choice for Jamaican students, in research (see table I), in teaching (see table 2) and in service to the Jamaican, regional and global communities (see table 3) is a testament to the financial commitment of the Jamaican and regional governments to the institution, the relative effectiveness of the management of the institution, the effective bargaining of WIGUT (Jamaica) and the loyalty and productivity of many Mona staff members.

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7 In one of the earlier examples of this association, in June 1965, US civil rights leader, Dr. Martin Luther King, spoke at the Mona Campus graduation, just three years before his assassination; in a much more recent example, South African President, Thabo Mbeki, praised Jamaica's leadership role in the global battle against the South African apartheid system, in a presentation to the Mona Campus Community in June 2003.


9 In 2003, the significant majority of Mona faculty members had terminal academic qualifications from established and high quality institutions from around the world, including . Most senior staff members were Jamaican nationals, but citizens from forty-four countries, representing all six populated continents, were an integral part of the UWI, Mona faculty and senior administrative and professional staff.

Mona as an Under-Performing Institution

But a second stylised point is that on several key performance dimensions, UWI, Mona, is losing ground both with respect to its historical performance and to global competitors.

While the Campus has clearly expanded access and educates far more students (see table 2), in response to the increased demand for tertiary education, there are clear indications that the quality of instruction is checkered and uneven. Quite jarringly, in relation to best practice in this area, Mona students complain about the challenges of pursuing an education at the Campus, and are rarely strong in commendation of, and show little inclination toward future financial support for, the Campus. The seriousness of this challenge is reflected in the fact that when asked, in the Stone 2001 market survey, what they liked best about Mona, students ranked "good teachers" last, even while rating "courses offered" as that which they "liked best"

Although publications increased on a per-capita basis during the 1990s, disconcertingly, the 2002 level of per-capita publication productivity is lower than the level in 1996/1997, when it had not yet returned to the level of 1970-1971, which, of course, was long before the introduction of the now ubiquitous personal computer. (See table 1) And the existing level of faculty publication output, across and within departments, is highly uneven by the standards of a research university.

The teaching activity (table 2) and research productivity strengths and challenges, reflected in table 1, are also captured in analyses of the teaching and research productivity of specific UWI, Mona faculties. Mona's first faculty was medical sciences, and this faculty has long represented the institution's flagship product. In terms of the education of doctors, UWI, Mona has produced top-class medical graduates whose professional expertise can clearly be linked to the very commendable health statistics of Jamaica (See Alvin G. Wint "International Competitiveness and Rare Tradables: Assessing the Jamaican Health System, Social and Economic Studies, Vol. 51, No.3, 2002; pp. 1-26). In terms of research productivity, Figueroa and Henry-Lee report that three of the UWI Mona's medical institutes (Medical Research Council, Sickle Cell Unit and the Tropical Metabolism Research Unit) were amongst the most productive research organisations in health in Jamaica between 1991 and 1995. (See J.P. Figueroa and A. Henry-Lee, "Essential National Health Research Task Force: A Profile of Health Researchers in Jamaica 1991-1995," West Indian Medical Journal, vol. 47, 1998, pp. 89-93.

Yet, at the same time, based on research publications per capita, none of UWI Mona's Faculty of Medical Science Departments ranked among the top three research producers during 1991-1995. Further, Hickling points out that in 1990, the 143 full-time academic staff members of the Faculty of Medical Sciences produced 3% fewer peer-reviewed publications than the 41 staff members in 1960. (See F. W. Hickling, "Medical Research at the Faculty of Medical Sciences, Mona Campus 1960-1990, West Indian Medical Journal, Vol. 48, No.4, 1998, pp. 183-187). It should be noted that the research productivity of the Faculty did increase during the following decade. (See B. Bain and M. Jackson, Research Productivity In the Faculty of Medical Sciences, unpublished presentation to Academic Board, Mona, 2001).
A troubling element of UWI, Mona's performance in relation to publications is captured in data obtained by the Task-Force on publications listed, and cited, in global data bases. The Task-Force acquired a data base\(^ {12} \) compiled by Thomson ISI (Contract Research Section) which features 1981-2002 citation profiles of universities from the United States and six universities from around the world. Figures 1 to 3 provide analyses of UWI, Mona's performance relative to seven universities included in the data base.

These seven universities are:

- National University of Singapore (Singapore) (NUS)
- Queens University Belfast (United Kingdom - Northern Ireland) (QUB)
- Queensland University of Technology (Australia) (QUI)
- Texas A&M University (United States) (TAM)
- University of Botswana (Botswana) (UB)
- University of Chile (Chile) (UC)
- University of Sao Paolo (Brazil) (USP)

Figure 1 shows that UWI, Mona's total output of cited papers has remained virtually unchanged between 1981 and 2002. UWI, Mona is the only institution among the group examined for which there is such a trend of stagnation. NUS and USP saw dramatic improvements in performance over the period. Interestingly, whereas in 1981 NUS was behind UWI, Mona, by 2002 it had an output 10 times that of UWI, Mona. QUT, starting from scratch, has also overtaking UWI, Mona. And UB, although the only one of the comparator institutions below UWI, Mona, has almost achieved UWI, Mona's level of output, by dint of its faster rate of growth over the last seven years, in particular. The data provided in figure 2, on total citations convey the same image of relative underperformance by UWI, Mona.

Figure 3, makes the point more dramatically, since, based upon papers as a proportion of global output, it shows not just stagnation on the part of UWI, Mona, but relative decline. Whereas in 1981 UWI, Mona represented 0.025% of global output, by 2002, this had declined to 0.02%. This ratio compares with Jamaica's ratio of global population of 0.04% and its ratio of global GDP, of 0.025%. UWI, Mona's ratio of global publications should be higher than Jamaica's ratio of global GDP, given Jamaica's level of economic stagnation, and the level of investment of the Jamaican Government, and of regional governments, in the institution that is one of Jamaica's flagship institutions.

\(^{12}\) The Task-Force acknowledges the Mona Campus Library and University Librarian for paying for this data base. This, or a similar, data-base should be institutionalised for use in UWI's strategic monitoring systems. It is currently located in the UWI, Mona Library. Information on the analytical options available within this and related databases, can be obtained from Professor Kahwa, the member of the Task-Force responsible for its acquisition.
The Task-Force recognises that there are challenges associated with the use of citation indices in an institution such as UWI, Mona. In some cases, with the discipline of history being a prime example, instead of citing UWI, Mona authors, others go directly to the sources such authors have uncovered in their work. In this scenario, the academic may go citation-free, even though the individual's work has had significant global impact. Another problem relates to the limited global audience that is, at times, interested in research on the types of Caribbean-centric issues that are an important element of the research activity at UWI, Mona. Nevertheless, these concerns aside, it is clear that UWI, Mona needs to make a concerted effort to increase its presence in the global research arena.

In this regard, UWI, Mona cannot afford to just have a vision or targets in its strategic plan, it must have a deliberately conceived process and a suite of strategies for achieving the enunciated strategic goals. A plan is urgently needed to deal with the low relative scholastic output of UWI, Mona, which is informed by an analysis of the mechanisms other universities have used to improve considerably their performance on global scholastic radar screens.

While research productivity needs to be improved, the establishment of targets requires careful consideration. By the standards of ‘s own 2002-2007 plan, even assuming that the 398 publications noted in table 1 were all peer-reviewed, the plan target is to produce over 800 by the second quarter of 2004. Clearly in translating repositioning goals into targets, an issue is whether a plan target such as this, which may well be reasonable in terms of global standards abstracted from particular contexts, and is in fact being achieved by one or two of UWI, Mona's research centres, is reasonable as an across-the-board target, in the context of the full set of strategic objectives to be pursued by the institution.

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13 The 2002-2007 strategic plan targets that 75% of academic staff attached to faculties and 100% of staff attached to research centres should be publishing at least two refereed papers per year in recognised peer-reviewed journals. See The University of the West Indies, Strategic Plan 11, prior citation, p. 28.

14 In terms of world-class research productivity, in 2001-2002, the Tropical Medicine Research Institute (TMRI) was one of the few entities engaged in graduate teaching and research, which achieved such standards. There are other departments on the Campus that would have to increase their productivity as much as five-fold to approximate, for example, the output of Nuffield College, Oxford at 3.2 refereed publications per academic researcher/teaching staff in 2001-2002. See UWI, Mona Campus, Departmental Reports, 2001-2002; Nuffield College Annual Report, 2001-2002.
Mona as a Precariously-Funded Institution

The third stylised point is that the Campus is precariously positioned because of its vulnerability to the vagaries of Jamaican Government financing. The Jamaican Government has been unusually committed to the provision of financing for the Campus in the context of the Country's fiscal constraints. But the Campus consumes a significant portion (13%) of the education budget, and an extremely significant proportion (66%) of the overall tertiary education budget.\(^\text{15}\)

Given Jamaica's current status as one of the world's more heavily indebted countries, adopting a "business as usual" perspective to the continued availability of funding from the Jamaican Government, in similar relative amounts, would be strategically unwise.

A Strategic Position for UWI, Mona

Arising from these stylised points the Task-Force proposes, for discussion, the following strategic repositioning of the Campus.

UWI, Mona should be:

- a research-driven university operating with such flexibility, systems, performance-linked structures and leadership to allow attainment of global standards of excellence and productivity in undergraduate and graduate teaching, public service (including advocacy) and research;
- an institution whose source of funding is significantly diversified away from the current extremely heavy reliance on governmental sources.
- a university that is conscious of the social context in which it is located and that seeks to use its research and teaching facilities to produce scholarship that is relevant to the needs of the island and the region, and that establishes itself as a global leader in scholarship focused on Jamaica, the Caribbean, developing countries, small states, people of colour, and tropical conditions;
- a leader in the tertiary education system in Jamaica and throughout the Caribbean;

\(^{15}\) In 2002-2003, the Government of Jamaica (GOJ)'s contribution of J$2.997 billion to the Mona Campus, represented 13% of the GOJ education budget and 66% of the G6J tertiary education budget. Note that the GOJ tertiary education budget funded sixteen tertiary institutions (the UWI, UTECH, CASE, Edna Manley, seven multidisciplinary colleges and five teacher training colleges). See Jamaica Estimates of Expenditure for the Year Ended March 31, 2004, Ministry of Finance & Planning, 3rd April 2003; University of the West Indies, Mona Campus, Biennium Budgets 2003-2005, January 2003.
Strategic Repositioning: Research Versus Teaching Versus Scholarship

Central to the strategic repositioning statement is that UWI, Mona is a research-driven university. This is clearly how UWI began its life. And the institution has the perquisites of a research university: relatively light teaching loads; financial support for the research of students, and faculty; travel support for faculty, book grants; sabbatical availability; research time-release through research fellowship opportunities; and, as a consequence, a cost structure, and a disproportionate level of government funding, that is only justifiable on the basis that it operates as a research-driven institution.

Yet there continues to be a debate about whether UWI, Mona is, predominantly, a research or a teaching institution. This Task-Force repeats other initiatives within the University over the last several years, which suggest that in the context of a changing environment, it is imperative that UWI be clear about its own self-identity as a research-driven institution, providing intellectual leadership to the Anglophone Caribbean's tertiary education system. What UWI is charged to do for the Anglophone Caribbean, UWI, Mona must do for Jamaica. And UWI, Mona will need to communicate clearly its strategic position, and its research, to the government and to the public.

In order for UWI, Mona to receive support from the government and the public for its research activities, the Campus needs to have incentives that encourage researchers to popularise their research, and needs to employ professionals who can interface between the institution's researchers and the public in an effort to help the public understand the importance of the work that is done on the Campus.

At the same time, this focus on research does not imply that UWI, Mona should not continue to have a critical undergraduate teaching function. Thus, UWI, Mona should maintain a leadership position in the provision of undergraduate education in Jamaica, through high quality undergraduate teaching; quality control, assessment, examination and accreditation assistance to other tertiary institutions and secondary institutions; and curriculum innovation and publication of material required in the teaching of Caribbean-relevant degrees.

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16 See, for example, Bridget Bereton, Simeon Mcintosh & Alvin Wint, Refocusing on Graduate Education and Research, Report to the Board for Graduate Studies and Research, July 1998.

17 One of the concerns about UWI, Mona's role as a research institution arises from the Stone opinion polls of the 1980s, which found that while UWI, Mona had a significant impact, most respondents associated this impact with its teaching function. See Carl Stone, "Public Opinion Perspectives on the University of the West Indies, Caribbean Quarterly, prior citation. The views of respondents probably reflect a lack of awareness of the symbiotic nature of high quality teaching and research, but they are also likely to have resulted, as Stone himself suggested, from UWI, Mona's historically ineffective promotion of its research and public service activity. The level of research promotion has changed since the Stone polls of the 1980s, with innovations such as research day, the Annual Mona Academic Conference and a plethora of other conferences and symposia, the Principal's research awards, and the promotional activities of the School for Graduate Studies and Research. The Stone Polls of the 19905 did not address this matter directly in interviews with the public, but it is interesting that 63.2% of lecturers surveyed in these polls viewed their most tangible contribution to UWI, Mona as teaching, while 51.2% viewed research as their most tangible contribution. See Detailed Analysis and Report based on Stone Market Research Survey, prior citation.

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In so doing, Mona should play a key role in the development of a tertiary educational system in Jamaica in which no qualified applicant is refused a place in a tertiary institution, although not necessarily in that student's institution of first choice.

There is a concern at UWI, Mona that weak research is rewarded ahead of strong scholarship. This is not a uniquely Mona phenomenon. Across the globe, there are incentive systems that seem to be rewarding academics to research more and more about less and less. Obviously, incentive structures need to interrupt the research thrust of such individuals well before they reach a climax, and know "everything about nothing."

UWI, Mona's incentive structures need to incorporate qualitative and research impact dimensions to avoid this particular tendency. At the same time, the solution is not to encourage an approach to scholarship that is inappropriately broad, that does not subject the academic's work to rigorous peer review, and that has the potential of arriving at the other end of the scale, in which individuals have an incentive to know "nothing about everything."

**Strategic Repositioning and Trade-Offs**

One of the Task-Force's criticisms of the current strategic planning exercise at UWI is that it eschews trade-offs. There is a reason for avoiding trade-offs; they involve difficult choices. It is much easier, and more politically correct, to suggest that the institution will pursue a range of goals with equal fervour, even if these goals are inherently contradictory. But in strategic positioning, the choices of what not to do are as important as the choices about what to do. Consequently, this effort at strategic repositioning makes explicit certain trade-offs.

- UWI, Mona should seek to improve the tertiary education enrolments in Jamaica, which clearly need to be improved (see table 4), through leadership in the development of an articulated tertiary educational system rather than through single-handedly seeking to increase tertiary enrolment levels by significant expansion of the numbers of undergraduate students on the Campus.

- UWI, Mona should seek to improve tertiary enrolment ratios by assisting tertiary level institutions establish independent degree programmes, rather than through the franchising of the UWI degree.

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19 It should be noted that one member of the Task-Force remains to be convinced on this point.
Strategic Challenges Confronting UWI, Mona

This latter point deserves additional discussion given recent debates on the subject at Mona. The expansion of UWI, Mona enrolments through franchising is a seductive response to the challenge of increasing the tertiary enrolment ratio, without putting additional pressure on the physical infrastructure of the Campus. But strategically, it is fraught with danger, as is the case of many, apparently "free lunches."

The key feature of a degree received from a leading research university within a region is the ability of students to take classes taught by researchers on the cutting edge of their field; and to be immersed in the potentially transformative experience thus created. This is not a 'franchisable' experience. It is this experience that justifies the much higher tuition cost of the research university.\(^\text{20}\)

If the UWI, Mona degree can be franchised to much lower cost educational institutions, with no change in the degree, it calls into question the justification of UWI, Mona as an institution involved in teaching. From the perspective of the Government of Jamaica, a research institute, with an external examination function, would represent a more efficient use of resources.

There is a very strong case for leading research universities within countries and regions, which is why virtually all countries and regions have such institutions. These institutions offer a different educational product and there should be no embarrassment associated with the offering of such a product, because every tertiary system needs different categories of educational products. An integrated tertiary system, with differentiated educational products, is essential to reconciling the challenges of access and excellence. This challenge can be reconciled in a manner that provides equality of opportunity by ensuring articulation throughout the system.

Thus, UWI, Mona should seek to increase tertiary education enrolment ratios in Jamaica, but by collaborating with other tertiary level institutions\(^\text{21}\), and by providing leadership in the development of associate and full degrees at tertiary institutions across the country and the region, while ensuring that these degrees are articulated with the UWI system.

\(^{20}\) Local private institutions that grant degrees in Jamaica offer them at about one-quarter of the economic cost of a Mona degree. The University of Technology receives a government grant that is 25% of the grant, while its average tuition costs are 30% lower than the non-medical tuition costs of Mona.

\(^{21}\) Such collaboration could well include the transformation, under negotiated conditions, of carefully selected Jamaican TLIs, into affiliate colleges of the UWI.
The comparative data on the proportion of funds spent on tertiary education illustrate why it is important that UWI, Mona assist other public and private tertiary institutions grant degrees in order to improve Jamaica's tertiary enrolment ratio. (see table 4) The Jamaican Government already spends as much on tertiary education as countries with much higher tertiary enrolment ratios. In fact, the data in table 4 suggest that, as a proportion of GNP, Jamaica is one of the higher spenders on tertiary education among countries of high and medium human development, as defined by the United Nations.

Significant tertiary enrolment expansion, therefore, cannot take place through expanding enrolments at the highest cost public institution, unless student-staff ratios at that institution were to be so exponentially increased as to make a mockery of any claim of a quality education. The appropriate use of technology can help in accommodating increased student-staff ratios, but, as those faculty members who have interacted closely with students electronically will attest, there continue to be limits to the potential for increased these ratios using technology, if key educational objectives are to be met. The technology can assist in helping to improve the learning experience of students.

While UWI, Mona cannot significantly expand its enrolments without putting other strategic objectives at risk, it is also important for UWI, Mona to recognise the full set of its strategic objectives in the repositioning process proposed, and the importance of some flexibility in meeting strategic objectives across the institution. Thus:

- UWI, Mona should require research centres and institutes to have higher targets in terms of refereed publications than departments that combine research with undergraduate and graduate teaching.

- UWI, Mona should emphasise the importance, in the assessment and promotions process, of activities associated with transforming the experience of students, such as the production of appropriate research-linked teaching materials, high quality teaching, and formal mentoring of students; or of research-based advocacy and activism. High quality teaching and raising the prestige of the institution among interested publics, through appropriate public service, which includes advocacy, are also important elements of the proposed repositioning.
Strategic Challenges Confronting UWI, Mona

Strategic Repositioning and Focus

One of the key areas of focus for Mona reflected in this strategic repositioning is its role in providing global leadership in research and education in areas in which Mona-based faculty members should be expected to have a global competitive advantage. These include matters to do with the Caribbean, Jamaica, small states, tropical conditions and people of colour. Examples already abound, in all faculties, of coordinated research and teaching efforts in these areas. They include the Faculty of Medical Science's Tropical Medicine Research Institute; the activities of the Institute for Caribbean Studies and the Reggae Studies' Unit of the Faculty of Humanities and Education; the Centre for Caribbean Thought of the Faculty of Social Sciences; and the Natural Products Institute of the Faculty of Pure and Applied Sciences. New initiatives within faculties in these directions are also developing and should be encouraged.

Faculty members need not be constrained to work on research products which follow these themes, but UWI, Mona must continue to develop incentives to enable the institution to develop global leadership in these areas and ensure that the intellectual heritage of the region is not poached by non-regional institutions.

Strategic Repositioning and Funding

Recognising the challenges of the Jamaican Government financial situation, while cognisant of the critically important "public good" nature of research, UWI, Mona should continue to make the case for the need for government financing, while, in line with international best practice, diversifying its sources of funding, as well as reducing costs by improving the productivity of the institution.

The diversification efforts should target an increase in the funds received from: current students, in the form of increased undergraduate and graduate tuition, supported by the necessary loan facilities; alumni, in the form of contributions to the Campus endowment fund; the private sector, in the form of contributions to the Campus endowment fund, named buildings, and professorial chairs; and the intellectual property of staff members in the form of patented technological innovation, commercial services and executive education.

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22 For example, the Section of Psychiatry in the Department of Community Health and Psychiatry has developed a proposal for the establishment of the Caribbean Institute of Mental Health and Substance Abuse. (CARIMENSA).
Strategic Repositioning and Fit

Critical for effective strategic positioning is "fit" among the activities of the organisation. The remaining sections of this report provide additional analysis of the strategic challenges associated with developing the appropriate intellectual resources, systems and processes, student quality and commitment, infrastructure and the funding approaches required to provide for the effective repositioning of the institution along the lines advocated. Central to the analysis that follows is a recognition that the repositioning of UWI, Mona, in order to address the externally-oriented challenges identified earlier in this report, will require an internal revolution in systems and processes.
DEVELOPING UWI, MONA'S INTELLECTUAL RESOURCES

There is possibly nothing as important to the effective repositioning of the institution than the on-going development of its intellectual resources. UWI, Mona needs to provide a nurturing environment that enables staff members to engage in high quality research, teaching, public service and the production of intellectual assets for commercial sale, and to provide support for research, teaching and the commercialisation of intellectual property.

Several of the institutional mechanisms associated with such an environment are already in place. For example, teaching loads are consonant with those of research universities. Useful research support mechanisms include the study & travel grant scheme, the book grant scheme, a generous research fellowship support programme, offering the possibility, which is unusual by international standards, of research leave for two consecutive years, and the relatively generous financial support of student research. Support mechanisms for effective teaching include the Instructional Development Unit, the student evaluation of teaching programme and the Quality Assurance Programme.

But these mechanisms have been insufficient to create the evenly high level of staff performance that is required of the strategic position articulated at the outset of this discussion paper. There are important environmental reasons that have contributed to this unevenness.

One is that UWI, Mona's salary structure compromises the ability to recruit faculty, acutely so in certain disciplines. The negative impact of these environmental factors is, however, exacerbated by internal processes that have placed insufficient premium on nurturing high and even levels of staff performance.

23 In the USA, preferred teaching loads for undergraduate instruction average nine hours per week. For instruction partly or entirely at the graduate level the norm is six hours per week. See Statement of Faculty Workload: American Association of University Professors - www.aaup.org/statements.

24 One of the challenges confronting, Mona is the need to separate the perquisites required for academics with those granted to senior administrators. UWI, Mona unnecessarily and unusually confuses the links between compensation packages and perquisites across these categories of staff members.

25 In terms of average salaries, the US university, Texas A&M, selected for benchmarking with, Mona has US$000 salaries as follows: Professor, 91.2, Associate Professor, 65.5, Assistant Professor, 56.9. See The Chronicle of Higher Education AAUP Faculty Salary Survey - chronicle.com/stats/aaup/2003. But there are significant variations in the US across institutions and disciplines. For example, Professor Howard Frank, the Dean of the Business School at the University of Maryland (UM), was quoted in the July 21st, 2003 issue of The Financial Times, indicating that UM was starting newly-minted Ph. Ds. in Finance at a salary of US$135,000 per year.
The Need for Changes in Leadership Approaches

The challenges to performance enhancement begin at the leadership level. Deans and heads are appointed to manage faculties, departments, centres and units, but are not provided with a coherent indication of the strategic direction of the Campus, asked to lead the process of developing strategic plans for their entities that are in harmony with this direction, or monitored and held accountable for the performance of the entities they lead by the leadership of the Campus. Of course, neither do they receive significant compensation for their leadership role, so there is a level of consistency between expectations and rewards. But this consistency does not lend itself to improvements in organisational performance. All deans and heads, and not just deans who happen to be senior lecturers, should be appropriately compensated for their leadership role, and should be expected to lead appropriately.

There is some concern on the Campus that leadership appointments are, at times, linked to "networks" that include male-gendered networks.

UWI, Mona should ensure that appropriate measures are taken to encourage a better gender balance in our student and staff population, and that a full-scale examination is undertaken to ascertain why the top management and senior academic structure of the Campus is so male-dominated.

The coalescing of the environmental problems and the internal systemic problems can be devastating. In some departments, for example, professorial chairs remain vacant for many years. Yet, in these are supposed to sit the academic leaders responsible, alongside heads, for enhancing departmental performance. To illustrate, anecdotally, the problem of vacant chairs, two of the members of this Task-Force were recruited to fill chairs that had been vacant for a cumulative total of forty-three years. For a more structured analysis of professorial vacancies by department, and over time, see Table 6.

26 Dickeson also identifies leadership at the university level as a key element in a process of institutional reform. See Robert C. Dickeson, *Prioritizing Academic Programs and Services: Reallocating Resources to Achieve Strategic Balance* (San Francisco, CA: John Wiley & Sons, 1999). The importance of leadership is also echoed in the reform efforts of one of the institutions chosen by the task-force as a comparator institution for this study, Queens University, Belfast (QUB). This institution undertook a comprehensive strategic review in 1997. The output of the review process was used by the incoming Vice Chancellor as a framework for a change management initiative within the University. Among other things, the incoming VC held meetings with the entire staff of the institution to make it clear how important strategic change was to the institution's sustainability. The implementation of the plan led to Queen_ University moving from 40 to 19 in the UK's league of top 100 universities. Notes from meeting between Professor Verene Shepherd and QUB Assistant Registrar (AR), Derek Smythe, August 12, 2003.

27 Currently at UWI, Mona, 38% of heads of departments and 19% of professors are female.
Strategic Challenges Confronting UWI, Mona

The Need for Changes in Evaluation and Reward Systems

The lack of systematic and transparent processes for evaluating departmental performance is replicated at the level of individual members of staff. Unusually for a large organisation, and in a departure from best practice among universities, staff members at UWI, Mona are not beneficiaries of annual performance evaluations. Instead, for example, evaluations for faculty members take place only at inflexion points in their career: contract renewal, merit-bar crossing, senior level promotions and consideration for tenure.

Tenured staff members, below the professorial rank, who opt to be not considered for senior promotion, can go unevaluated for decades. A recent effort to implement the five-yearly evaluation of tenured staff advocated in the 1996 governance report was unsuccessful. Additionally, another recent attempt to introduce evaluations, in this case annual performance evaluations of all academic staff, appears to have floundered, at least partly because the evaluations did not feed into the existing system of promotion or salary increases.

With the focus on evaluations only at the point of promotion or tenure, staff members lose the development potential of a performance evaluation system. The problem thus created is exacerbated by a tenure system that does not create the performance pressures associated with the Darwinian "up or out" tenure and promotion systems common in many universities. These problems are then amplified by a salary structure that incorporates no performance criteria outside of those associated with crossing the promotional hurdles. The absence of performance criteria is also notable in the staff perquisites of the typical research university, such as sabbatical leave and study and travel grant support, which are available to faculty members at UWI, Mona. Collectively these systemic elements of the evaluation and reward system at UWI, Mona contribute to highly uneven performance across the Campus.

Change in this area is critical. There is a clear need for an urgent staff assessment exercise at UWI, Mona. Annual staff and departmental evaluations should follow. It is important to develop a system incorporating both individual and departmental performance goals. In developing these goals, departments should be expected to benchmark against international standards and to analyse historical performance, in relation to research and teaching performance.

28 The Task-Force recommends that a portion of compensation be merit-linked. The Task-Force, in this regard, is proposing the introduction of performance bonuses, not a merit-pay scheme, in which individuals receive current merit pay increments for meritorious performance in the distant past. The latter systems have been demonstrated to be quite problematic. See, for example, Edward E. Lawler 111, Strategic Pay: Aligning Organizational Strategies and Pay Systems (San Francisco, CA: Jossey-Bass, Inc. 1990).

29 Uneven staff performance has been a problem at other universities. The approach at QUB was to engage in a systematic assessment of all staff members, coupled with pay adjustments for high performing members of staff, at the onset of that institution's strategic change management process. Notes from meeting between Professor Shepherd and QUB's Assistant Registrar, prior citation.
These goals then need to be linked into the Campus's assessment and promotion system. This system needs to be applied to evaluation of the performance of departments, with department heads encouraged to develop team-based approaches to enhance the performance of under-performing staff members, to ensure that the department as a whole achieves the appropriate balance between teaching, research, university service and public service and to facilitate shifts in emphasis from time to time, depending on the changing requirements of the department, the Campus and external stake-holders.

In order to implement the evaluation processes described in this report, departments should be encouraged to institute departmental assessment and promotion committees, which would be comprised of elected senior staff members. These committees would have the responsibility to deliberate on promotional cases, incorporating into such deliberations considerations of the impact of staff members in the areas of research, teaching, university service and public service, in the context of departmental strategic objectives and individual performance goals. Currently, a qualitative assessment of a faculty member's research is expected only from external reviewers. This is an unusual situation for a research institution, and is an inadequate reflection of the maturation of the Campus.

While some flexibility is important in the assessment & promotion system, it is also important that this system reflect the strategic repositioning of the campus. This means that performance in research, teaching, public service and university service, to include funding generation, should all be incorporated explicitly into assessment systems. The decision on the precise weighting of these activities is a challenge in many university systems.

The direction in which the Campus and the Unions on the Campus have been moving in this area is to consider the need for some flexibility, including differences in weighting based upon the point within the career of the academic. It is also essential that this flexibility take into account the personal goals set by the particular staff member, set against the background of the stated objectives of the department. Flexible contracts for staff members are a logical outgrowth of this process.

Task-Force endorses this approach, while emphasising the primacy of research to the success of the overall UWI, Mona "team", and while stressing the need for incorporating assessment criteria to reflect performance in providing students with the formative experience from which they should benefit during their time on the Campus, and the need to incorporate incentives for generating funds, given the importance of funding diversification in the repositioning of the Campus. The assessment process should also be tied to performance-linked rewards, beyond those associated with crossing promotional hurdles. Such a link is particularly critical in order to maintain the motivational levels of highly productive staff members, and reduce the threat of such individuals being poached by other universities. But performance-linked rewards and awards need to be transparently applied.  

30 For example, the motivational effect of excellent performance-linked award initiatives such as the Principal's research award is likely to be reduced if the process of selecting awardees is opaque.
Consensually developed, properly implemented and transparently applied, performance evaluations and performance-oriented reward structures are mechanisms for the development and nurturing of enhanced performance. But they also need to be complemented by more strategic activity in the recruiting of staff members.

**The Need for Changes in Recruitment Approaches**

Unusually for a research university, UWI, Mona allows the recruitment of staff members, below the professorial level, based solely on the examination of curriculum vitae and references, without reference to interviews by faculty selection committees and presentation of the faculty member's research. The state of the art in human resource management involves careful examination of the fit between the institution and the prospective employee.

In one department on the Campus, the head has taken the initiative to enlist the assistance of a psychometric testing firm to assess the personality profile of prospective staff members to ensure a fit between the staff member and the department's self-formulated strategic direction. Other departments may not opt for as formal an approach to faculty selection, but clearly more thought needs to be given, across the Campus, to the implementation of carefully structured systems and processes for staff recruitment and development.

In so doing, it is important that the Campus find mechanisms for recruiting individuals of exceptional quality, including those in the Caribbean's intellectual diaspora. Sufficient flexibility is required in the recruitment process thus that even where a vacancy does not exist in a department, this should not eliminate the possibility of recruiting a top flight individual of scarce talent, who has indicated an interest in relocating to Jamaica. This is particularly true where such individuals have a track record of attracting significant research funds. High performing faculty members who are recruited need to be retained. Where this does not occur, exit interviews of departing faculty members need to be conducted on a systematic basis across the Campus to provide information that might assist in the improvement of systems and procedures at departmental, faculty and campus levels.

Flexibility in contracts is also important in recruiting. It may well be possible, using short-term contracts, to recruit individuals, who may not be available for a full academic year, for shorter periods.
IMPLEMENTING APPROPRIATE SYSTEMS & PROCESSES AT UWI, MONA

An important strategic challenge for the Campus is that it must ensure that its systems and processes are assessed to reflect their consonance with current realities and their fit with the strategic position outlined earlier in this paper. As pointed out in the previous section, these systems and processes relate to the performance and rewards provided to staff members.

But there are other systems and processes across the University that have an influence on the level of organisational productivity. Students would often recall with bitterness their experiences of registration while at UWI, Mona. Pleasantly, the movement to an internet-based registration system has improved the performance of the Campus in this area quite significantly. Although heads, deans and faculty members are still involved significantly in course registration matters that should be automated, the shift to an internet-based registration system has reduced the extent to which key elements of the scarce intellectual capital of the country are absorbed in making routine decisions about the course choices of undergraduate students.

But even with improvements in the registration process, there continue to be instances of excessive bureaucratic overlay in the operations of the Campus. Further, students and faculty continue to complain about administrative problems on the Campus.31

In fact, in far too many cases, UWI, Mona continues to operate as if it has a guaranteed source of funding, thus obviating the need for efficiently utilising scarce resources. Nowhere is this more apparent than in the inefficient use of scarce academic and administrative talent.

The Need for Improvement in the Use of Staff Time

As an example, although the Campus' examination system has, by and large, served it well, there are elements within the system that are highly inefficient. To supposedly protect the integrity of the examination structure, for example, senior level academics serve as chief invigilators for examinations: that is a senior member of faculty spends two or three hours in an examination room in a subject completely unrelated to his or her area of expertise, supervising invigilators. This cannot be an efficient way to use costly academic talent.

31 One of the areas in which the Task-Force recommends that the Campus collect data is on administrative costs as a proportion of total costs at comparator institutions. There is some concern among some members of staff that UWI, Mona appears to be administratively top-heavy. In 2001-2002, administrative and central expenditure accounted for 33% of total expenditure. But the 2001-2002 level was the lowest in five years. In 1997-1998, the equivalent ratio was 38%. See UWI, Mona Accounts, Year Ended July 31, 2002.
While it is laudatory that academics are involved in scholarship selection processes, this can also be taken to the point of inefficiency. In some scholarship committee meetings, in which senior members of staff interview students to determine which of these almost equally rewarding students should receive a small scholarship, the opportunity cost of the time spent in these meetings, as proxied by the compensation of the interviewers, is close to, or may even exceed, the monetary value of the scholarship.

Indeed, far too many meetings at the Campus are very inefficient. Meetings that spend time reporting on what took place at other meetings have long been a staple of the Campus' governance operations. Indeed, Academic Board used to be a prime example of the extent to which the time of senior staff was under-utilised at meetings. Thankfully, under its current administration, Academic Board has moved beyond the situation when its focus was on reviewing the minutes of faculty board meetings, which minutes used to be read verbatim by at least one faculty dean, and which often included much information that was of "newsletter" form. In some departments there is the associated problem of meetings that are too infrequent, and that are inefficiently planned, with no timetable for their occurrence, or agendas for discussion. Too many meetings on the Campus are still free of decisions or strategy.

Where routine decisions are made on the Campus, the useful idea of checks and balances has been distorted to give rise to a system with insufficient balance in the checking. Typical of the Campus' processes is a multi-layered approval system in which too many academics are involved in making routine decisions. There are cases, for example, in which as many as eight academics (including all five members of the Faculty Graduate Committee) have signed off on a document admitting one graduate student.

The Need for Monitoring of Key Elements of Resource Allocation

On the other hand, more critical decisions within the Campus are often subjected to too little in the way of checking. Indeed, it is only slightly an exaggeration to suggest that at UWI, Mona there is an inverse relationship between the level of monitoring of an activity and its level of strategic importance: that is, the Campus majors in minors.

An important process within a university is that associated with determination of teaching loads and class sizes. Both represent important elements of the productivity of the teaching and research elements of a university's activities. UWI, Mona, by the standards of many universities, takes a rather liberal approach to the issue of teaching loads. Heads of departments are given almost exclusive responsibility in the assignment and determination of teaching loads.
While this strategy has the advantage of flexibility, at the same time, there are faculty members who have expressed concerns about unevenness in the distribution of teaching responsibilities within departments. While, heads require flexibility, a transparent reporting system for, and meaningful collective discussion of, the distribution of teaching seems like a reasonable compromise among the goals of flexibility, transparency and accountability. In the monitoring of teaching loads, it is worthwhile to recognise that teaching load allocation also needs to take into account the size of classes.

Inextricably intertwined with the determination of teaching loads is the issue of appropriate class sizes. Class sizes across the Campus vary from classes of fewer than ten students to classes of several hundred. Recent assessments of organisational productivity have focused on the low end of this range. In fact, both ends are problematic from a strategic perspective.

The problem associated with small classes is principally one of cost. Other things being equal, the smaller the average classes in a department or faculty, the higher its operational costs. What is important in determining actual costs, however, is the average staff to student ratio that obtains in a teaching unit. Since a full-time instructor represents, essentially, a fixed cost, the episodic elimination of a class because of its small size may not reduce costs, unless there is the ability to substitute full time spare lecturing capacity for part-time, thus reducing variable costs, or a system is in place that allows for the transferring of spare lecturer teaching capacity across time periods.

The Campus' systems do not currently check and monitor ratios of students to teaching staff in a strategic manner. Such monitoring is necessary in order to reduce the long-term costs associated with very low student to staff ratios. Since there are cases when small classes are important to the pedagogy of an academic unit, and to its research mission, units should be allowed to justify the need for small classes in special cases, as long as their overall student-staff ratios are acceptable.

The central, strategic monitoring of student-staff ratios is also important in order that the Campus avoid situations in which some academic units, aided and abetted by the campus authorities, have allowed these ratios to become unacceptably high. Typically, these high student-staff ratios have not been accommodated by increasing the teaching load of academic staff, but rather by increasing the average size of classes.

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33 As a part of a process of rationalisation, all educational activities need to be evaluated for their effectiveness. A broad range of criteria needs to be used in making such assessments. Dickeson suggests the following: history and expectations of program; internal and external demand; quality of program inputs and processes; quality of program outcomes; size, scope and productivity of program; revenues and other resources generated; costs; impact, justification and overall essentiality of program; opportunity analysis of program. See Dickeson, Prioritizing Academic Programs and Services, prior citation.
Strategic Challenges Confronting UWI, Mona

There are obvious negative consequences, to an institution seeking to maintain high quality teaching, of average class sizes that number in the hundreds, even for final year classes. The opportunity for personalised interaction between staff and students is severely compromised; pedagogy becomes concentrated on the final examination, regardless of the appropriateness to the subject of study, because of the challenges of coping with more learner-centred evaluation approaches; and students feel like atomistic agents known by identification numbers only, and never by name. The rectification of this deficiency is fundamental and critical to effective strategic repositioning, not least of all because continuation of this state of affairs severely compromises the Campus’ capacity to provide students with a transformative experience, undermines its ability to achieve world class teaching standards and seriously reduces the probability of graduates developing strong bonds with their alma mater.

One of the concerns that has to be noted at UWI, Mona is the on-going increase in the student-staff ratio over the last fifty years (See Table 6). Student-staff ratios in the mid-twenties may seem quite modest, but one needs to recognise that these ratios represent averages across the entire Campus, including faculty members in research units and in professional disciplines such as clinical medicine, which require comparatively small class sizes.

Also, of course, even if all academic staff were involved in teaching, assuming that each faculty member taught, annually, 50% as many courses as students took, then an average student-staff ratio of 25 across the Campus would be the equivalent of average class sizes of 50. To place these ratios in international comparative context, consider that the UK Government has expressed concern about a staff to student ratio of 1:18 across the entire UK system of higher education.34

The Need to Rationalise Programme Offerings

The monitoring of staff-student ratios is one of the mechanisms that need to be utilised in efforts to rationalise programme offerings. Following Dickeson, the task-force proposes the following additional criteria to be used in rationalisation exercises: staff productivity, income generation activity and prospects and internal and external demand levels. With appropriate rationalisation, in certain cases it may well be possible to generate additional tuition revenue without increased staff costs, and without increasing staff-student ratios to the point that they become detrimental to the strategic goals of the institution.

34 And here again there is a story of decline: staff-student ratios have fallen from just over 1:10 in 1983 to 1:18 in 2000 and this tends to mean that students write fewer assignments and have less face-to-face contact with staff.” Quoted from The Future of Higher Education, presented to Parliament by the Secretary of State for Education and Skills by Command of Her Majesty, Norwich United Kingdom, January 2003, p.15.
If the strategic position outlined at the outset of this paper is to be realised, the Campus' systems and processes will have to guard against the consequences of both high and low student-staff ratios. While ensuring that low ratios, as a routine occurrence, are avoided because of the associated high cost, the Campus and its academic units must also ensure that these ratios are low enough to allow for students to have opportunities for personalised interaction with faculty members, without imposing teaching contact hours that impair the fundamental research focus of the institution.
DEVELOPING UWI, MONA'S STUDENTS

In addition to developing its intellectual resources and improving its systems and processes, UWI, Mona has to focus explicitly on developing its students through the transformative experience that needs to be the product of an education at a leading research university within a region.

The Need to Recruit High Performing Students

Obviously this development process has to begin with the qualities that entering students bring to the institution. UWI, Mona faces competition for Jamaica's top high school students, from other UWI Campuses, from other local universities, and from foreign universities, operating in Jamaica, in other countries, and in cyber-space. Additionally, an increasing form of competition, particularly popular among the Jamaican upper middle classes, is that generated from some US boarding schools, which have positioned themselves as preparatory high schools, geared to preparing students for the top US universities. Several of these institutions have been aggressively internationalising, by offering academic and athletic scholarships to high-performing Jamaican high school students.

UWI, Mona's response to the competitive challenge should come through an improvement in its own interface with top performing high school students and highly motivated individuals within the workforce.

Elements of this process are already underway, including provisional acceptance decisions, greater attention to recruitment of students and marketing of the UWI experience. But it is that actual experience that also needs to improve.

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35 The movement to provisional acceptance at the Undergraduate level may well need to be extended to admissions and scholarship offers at the graduate level. UWI, Mona is losing some top undergraduates to foreign universities that are willing to extend offers and scholarships to top-performing students, pending the completion of their undergraduate degrees.

36 While the marketing and promotion of UWI, Mona has improved significantly since the Stone surveys, there is still a concern that UWI, Mona does not project its achievements in as systematic a manner as is needed in the "new world." The research day initiative has been an excellent development, but the idea that UWI, Mona should restrict its reporting on the public service activities of staff members (see table 3) suggests that there continues to be need for a campus-wide focus on the importance of marketing and public relations.
The Need to Monitor Entry Qualifications of Students

One of the dimensions of improvement must be ensuring that entry requirements enforce basic quantitative and qualitative competencies, to make sure that there is a sufficiently common standard among entering students upon which the university experience can build. It is such a common requirement among tertiary institutions, for example, that students should possess basic literacy and numeracy skills that it is hard to understand why UWI, Mona does not have a campus-wide matriculation requirement, in which, at a minimum, all students should have the equivalent of passes in CXC English and Mathematics in order to be admitted to the Campus.

The Need to Facilitate a Broad and Rigorous Educational Experience

Once students are on the Campus, the challenge is to ensure that they have access to a broad and rigorous education that develops critical and analytical thinking capacity, a competence in learning and the development of life-long learning skills, in addition to subject specific competencies.

An indispensable element of this process, extra-class-room learning, was discussed and agreed upon in 2000 by UWI, Mona's Academic Board.\(^\text{37}\) Mechanisms must now be put in place to audit the extent to which service-learning is actually taking place and to provide incentives for its development on a campus-wide basis.

Basic entry requirements, a focus on developing learning skills within a broad educational framework, controls and incentive structures that ensure reasonable student-staff ratios, productive faculty, streamlined administrative processes and enforcement of regulations,\(^\text{38}\) should ensure that students can gain transformational benefits from their stay at the Campus.

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\(^{38}\) Unfortunately at UWI, Mona, at times, there is a low compliance with key regulations affecting students. Some faculty members, for example, are routinely late in submitting grades and reports on student papers and theses, particularly in graduate programmes. No effective sanctions policy has been implemented in relation to delinquent faculty examiners.
The Need to Enrich Student Experiences and Nurture Student Loyalty

But there is one area that needs special attention. UWI, Mona students have not demonstrated the loyalty to the Campus that is evident in other universities. Part of the historical reason is that UWI, Mona has not felt the need to place a premium on the resources and goodwill that can be nurtured through an effective alumni network. But UWI, Mona needs to respond to its new environment by focusing on mechanisms to create the kind of experience that will build long-lived loyalty to the institution on the part of its graduates.

Many existing initiatives, such as the co-curricular emphasis, mentorship programmes, re-establishment of the matriculation ceremony, faculty awards programmes, faculty graduation ceremonies, honours programmes such as the Faculty of Social Science Dean's Breakfast Club, and efforts to invigorate an alumni network should assist in this process. A wider cross section of staff members are likely to engage in student-focused initiatives, and the high quality teaching required to provide the transformative experience that is advocated in this strategic repositioning, if these activities are recognised meaningfully in the assessment and promotions process.

What all these efforts have in common is that, in addition to enhancing the educational experience of students, they are likely to assist in integrating students into the life of the Campus. This can only auger well for the Campus' reputation, and the institutional loyalty of students, which, together, should create a greater opportunity for financial diversification and financial sustainability of the Campus.
STRATEGIES FOR FUNDING & PROGRAMME DEVELOPMENT AT UWI, MONA

Effective strategic positioning along the lines indicated requires funding. Funding is needed for appropriately compensating staff members involved in teaching, research and support and for providing the appropriate learning and student development infrastructure.

Funding for, and Utilisation of, Infrastructure

This infrastructure is critical and one of the welcome developments of recent times at UWI, Mona is the recognition of the importance of appropriate learning infrastructure, although more of such infrastructure continues to be necessary, both in terms of direct learning infrastructure and staff facilities. For too long, the Campus operated without a capital budget, making any infrastructural development dependent on the largesse of the international development community. In infrastructure development, as in all other areas, the Campus needs to learn from best practice elsewhere. One area of best practice is the more efficient utilisation of facilities than is evident at UWI, Mona, in particular through more widespread evening instruction, with the appropriate support structure. With adequate coordination, this can be accomplished without increasing teaching loads. But it does require faculty to be flexible in their teaching commitments.

In developing the Campus infrastructure it is important to make the Campus environment easier for students to negotiate (through appropriate signage, for example). But in all efforts at infrastructure upgrading, it is important that the historical significance of the Campus is recognised. The naming of streets on the Campus, for example, could take cognisance of the Campus's African and Indian ancestry. Further, historical monuments should be preserved rather than destroyed. Indeed, appropriate maintenance of the historical integrity of the Campus may present opportunities for raising funds.

The options for funding the Campus include government funds; student tuition; commercialisation of the intellectual assets of the faculty; and endowment funds, built through alumni and private sector gifts.
Public Funding

The research and public service activities of UWI, Mona faculty and, to a lesser extent aspects of the teaching function, are largely public goods. It is on this basis that UWI, Mona needs to make the case for continued significant support from the Government of Jamaica, and other West Indian governments. For continued government support, however, the Campus needs to demonstrate its responsiveness to the needs of the country and region. But the Campus must make the argument that this includes research, overall leadership of the tertiary education system and public service, and that it is not to be seen only in the number of students enrolled at UWI, Mona.

There are limits, however, to public funding of tertiary education. The data provided in this paper suggest that UWI, Mona has clearly reached the limit in a Jamaican context. Other mechanisms will have to be found to fund the Campus. Among other changes, students will have to be an important source of funding in the future.

Tuition Funding

Although the literature on university education suggests positive externalities associated with the operations of universities, what is also dear is that the private returns associated with a university education are high. These private returns suggest that the recipients of a university education should be prepared to contribute to the cost of their studies. At the same time, the existence of imperfect markets for human capital creates a problem. Since this capital is not tradeable across time, it cannot be lent ahead to provide a security for student loans. This creates the very real possibility of highly deserving poor students, with much promise for high social and private returns from a university education, being unable to access this education because of up-front tuition costs.

Increasingly, both within the literature and in the actual experiences of countries with student loan schemes that deal with the risks and rewards of tertiary education, there is an effort to identify approaches that can reduce the level of public funding of tertiary education, while ensuring that access of poor students to a university education are not compromised in the process.

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39 The continued need for public funding is captured in data suggesting that throughout the Latin American and Caribbean region 65% of Gross Expenditure on Research and Development is financed via the public sector (See UNESCO, Institute for Statistics, The State of Science & Technology In the World 1996-1997, 2001). In the United States, the public sector financed two thirds of academic research and development in 2001 (See Academic R&D Spending Trends, Science & Technology, July 21, 2003, pp. 25-33). Of course, some components of research are more amenable to other forms of funding. In this regard, it is useful to divide research into four categories: pure, applied, mission-directed and advocacy. Applied and mission-directed research, in particular, provide opportunities to diversify away from a reliance on government funding.
UWI, Mona needs to examine best practice in this area carefully. Is so doing, it must also recognize that its tuition costs are lower than publicly funded comparator institutions (see table 7), even while its students complain about the existing level of tuition.

One mechanism for increasing funding through tuition is UWI, Mona lobbying for the introduction, through the Students' Loan Bureau, of a Jamaican version on an income-contingent tuition loan programme for Jamaican students. In such programmes, students in financial need receive government-guaranteed loans for tuition and other educational costs, which are repaid on graduation, but in direct relation to the post-graduation income level of the student.

**Programme Development**

Another approach to funding the Campus is to recognise the possibility of programme expansion into new fee-paying markets. Internet and face-to-face programmes targeting the Jamaican and Caribbean diaspora and building on UWI, Mona's existing strong educational products and its position as "the best resource on Jamaica and the Caribbean" present themselves for adoption in this regard.

One example of an existing initiative is the Heritage Studies Programme in the Department of History. Another example of such possibilities beckons from the Faculty of Medical Sciences. This Faculty has spawned three medical programmes across the Caribbean since its formation. UWI, Mona could continue this trend with the development of additional medical training facilities within Jamaica (at institutions such as Cornwall Regional Hospital, Mandeville Public Hospital and Kingston Public Hospital). Within these training facilities it should be possible, at relatively low expense, to create professional tracks equivalent to UWI's academic structure, where experienced medical practitioners, many of whom are some of UWI, Mona's brightest graduates, are able to qualify for UWI academic positions if they meet the requisite promotional criteria. In so doing, UWI, Mona would also be absorbing into its fold a larger proportion of Jamaica's high quality intellectual talent.

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40 In making a continued claim for public funding of tertiary education, , Mona is on solid empirical and conceptual ground. There is much research on the positive externalities associated with tertiary education and the imperfect human capital market that leads to an inefficiently small demand for education in the absence of public financing. The multilateral financial institutions have been examining this issue carefully. See, for example, Berthold U. Wigger and Robert K von Weizsacker, 'Risk, resources and education: public versus private financing of higher education,' IMF Staff Papers, Washington: Vol. 48, Issues ¾, 2001, pp. 547-561; and Knowledge for Development: World Development Report 1998/1999 (New York: Oxford University Press), p. 53, for a discussion of the 'Income Contingency' Loan Programmes for tertiary education in Australia and New Zealand. The UK was also planning to adopt an income contingent loan approach as it moved to increase tuition costs across the UK tertiary educational system. See The Future of Higher Education, prior citation.

41 Mona students surveyed in 2001 claimed that the things they liked least about the Mona Campus were bureaucracy (57.4%), followed by high tuition costs (56.2%). It is probable that dissatisfaction with the former influences concerns about the latter. See Detailed Analysis and Report based on Stone Market Research Survey, prior citation. In 2001-2002, tuition accounted for 16% of the income of the Campus, up from 14% in 2000-2001. Over the same period, contributions from West Indian Governments declined from 73 to 69%. See Mona Accounts, year ended July 31, 2002.
These training facilities would then become a base for providing additional clinical training facilities for Jamaicans, and could be used to generate significant revenue flows for the Campus. One example of the potential lies in the development of strategic alliances with offshore medical institutions in the Caribbean region, of which there are now thirty, in which, Mona provides, for these institutions, access to clinical facilities in Jamaica. Other possibilities include establishing new medical programmes in countries around the world, in alliance with established institutions, in which, Mona takes advantage of its fifty years of experience and reputation.\(^4^2\)

Linked to increased funding from tuition should be an effort to generate funds from the intellectual property that resides in the Staff at UWI, Mona. To the extent, for example, that the research of UWI, Mona staff is linked into global research markets, it is possible to pursue a process of "strategic decoupling" in which the funding potential of research projects is decoupled from the vagaries of the local market funding opportunities. This process of seeking to generate revenue from UWI, Mona's intellectual property has already begun with the development of institutes such as Natural Products, Mona Institute of Applied Sciences, Sir Arthur Lewis and Tropical Medicine Research; and with the executive education activities and possibilities of the Mona School of Business.

The process needs to continue within institutes, centres and departments.\(^4^3\) Each of these entities within UWI, Mona should be encouraged to identify the unmet service, research and training needs in its area of work, and establish entrepreneurial institutes to capitalise on these unmet needs and become foci for development and increased intellectual property production.\(^4^4\)

\(^4^2\) For example, a request has been received for UWI to provide assistance in the development of medical programmes in the "New South Africa."

\(^4^3\) An important element in this process is a focus on increasing UWI, Mona's access to research grants. The development of an Office of Sponsored Research is a potentially important element in this process. Other initiatives are being developed at departmental levels. For example, the Pan American Health Organization has launched an initiative to promote a network of Mental Health Services Research between Latin America, the Caribbean and the USA and has invited members of the Section of Psychiatry in the Department of Community Health & Psychiatry, at UWI, Mona to represent the Caribbean. Such an initiative should lead to large-scale research initiatives across the three territories that prove financially rewarding to UWI, Mona.

\(^4^4\) As a recent example of this genre of activity, the Section of Psychiatry in the Department of Community Health and Psychiatry has also sought to focus on how UWI, Mona can meet other needs in a Jamaican setting and has developed a proposal for a Faculty of Cultural Activity Management and Development, which would be involved in offering a Masters Degree in Activity Management, based in downtown Kingston.
A range of other activities, involving revenue expansion and appropriate cost-cutting, directed toward solving the current short-term financing challenges, are being considered across the Campus by departments and task-forces\textsuperscript{45}, and the successful launch of these activities represents an important element of the future long-term funding strategy of the Campus.

**Endowment Funding**

A final element of the Campus' funding strategy needs to be focused on the building of an effective campus endowment. While private universities, in North America in particular, have long relied on endowment funding\textsuperscript{46}, public institutions around the world are also moving to reduce their reliance on government funding by, in part, building up endowment funds.

At UWI, Mona, on the other hand, although there have been efforts in recent years to develop an endowment fund and to organise alumni networks, many faculty members, who are UWI, Mona alumni, but who have also studied abroad, find that their foreign alma-maters are far more assertive in seeking them out for contributions than is UWI, Mona.

One of UWI, Mona's challenges is to improve the interface with students and the business community. This will facilitate greater levels of giving. The Campus also has to overcome its traditional reticence toward apparent mendicancy, by recognising a successful endowment programme as a return on investment, or a delayed payment on the institution's educational product offering. Individuals who gained a high quality education at the institution, in some cases completely at public expense, and who have used this education as a springboard to significantly higher lifetime earnings, might be quite prepared to make a contribution to their alma mater.

Similarly, although the private sector in Jamaica was lukewarm to UWI, Mona for two decades, and though the public service activities of UWI, Mona staff are still skewed away from involvement in the private sector (see table 3), efforts of UWI, Mona staff and its leadership to develop linkages with the private sector in recent years should begin to pay dividends in increased funding possibilities. These opportunities must be carefully nurtured if the Campus is to be successful in using endowment funding to augment the financial resources that will allow it to implement the strategic focus that has been described in this report.

\textsuperscript{45} These task-forces include a committee led by Professor Gordon Shirley, examining new programmes for generating funds for the Campus, and another, led by Registrar Falloon, examining possibilities for increasing income from programmes, including the Summer School.

\textsuperscript{46} In December 2002, for example, the Graduate School of Business Administration, Harvard University, launched a US$500m capital campaign to bolster its existing US$5billion endowment fund. Its endowment fund was so important to the operations of the Campus that annual tuition costs per degree student, Of over US$30,000, only contributed 20% of the Campus' operations. An additional 20% of revenue was generated from endowment funds, with the remaining revenue generated through publishing (33%); executive education (22%) and other (5%). (See Harvard Business School Alumni Bulletin, June 2003, p. 6.) At Princeton University, 10% of the University's budget is financed through the endowment fund. (Quoted from The Future of Higher Education, prior citation., p. 81.)
### Strategic Challenges Confronting UWI, Mona

#### Table 1


<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Academic Staff¹</th>
<th>Number of Publications²</th>
<th>Per-Capita Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>222</td>
<td>250</td>
<td>1.13</td>
</tr>
<tr>
<td>1975-76</td>
<td>289</td>
<td>184</td>
<td>0.64</td>
</tr>
<tr>
<td>1980-81</td>
<td>319</td>
<td>266</td>
<td>0.83</td>
</tr>
<tr>
<td>1985-86</td>
<td>300</td>
<td>258</td>
<td>0.86</td>
</tr>
<tr>
<td>1990-91</td>
<td>305</td>
<td>250</td>
<td>0.82</td>
</tr>
<tr>
<td>1996-97</td>
<td>327</td>
<td>348</td>
<td>1.06</td>
</tr>
<tr>
<td>2001-02</td>
<td>439</td>
<td>398</td>
<td>0.91</td>
</tr>
</tbody>
</table>

¹ Academic staff include full-time academics, at the rank of assistant lecturer and above, and exclude associate lecturers and honorary lecturers and consultants in the Faculty of Medical Sciences, who are part-time appointees.

² Publications include all publications, except book reviews, conference proceedings, abstracts, technical reports and newspaper articles.

*Source: University Calendars and Departmental Reports, Various Years.*
Strategic Challenges Confronting UWI, Mona

Figure 1: Comparative Scholastic Output of All Cited Papers 1981-2002

Number of papers for Overall Institution in 1 year periods cited to present
Figure 2: Comparative Citation levels 1981-2002

Total citations for Overall Institution in 5 year overlapping periods

- 1. Texas A&M University
- 2. National University of Singapore
- 3. University of Sao Paulo
- 4. Queen's University Belfast
- 5. University of Chile
- 6. Queensland University of Technology
- 7. University of the West Indies, Jamaica
Figure 3: Papers as a proportion of world output 1981-2002

Percent of world papers for Overall Institution in 1 year periods cited to present

- NATL UNIV SINGAPORE-all fields
- QUEENS UNIV BELFAST-all fields
- QUEENSLAND UNIV TECH-all fields
- TEXAS A&M UNIV-all fields
- UNIV BOTSWANA-all fields
- UNIV CHILE-all fields
- UNIV SAO PAULO-all fields
- UNIV W INDIES JAMAICA-all fields

Year:

Percent Papers:
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40
Table 2

**Student Enrolment at UWI, Mona 1955-2002**

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolment*</th>
<th>Compound Annual Growth Rate (CAGR) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955-56</td>
<td>444</td>
<td>17</td>
</tr>
<tr>
<td>1960-61</td>
<td>910</td>
<td>14</td>
</tr>
<tr>
<td>1965-66</td>
<td>1,902</td>
<td>8.5</td>
</tr>
<tr>
<td>1970-71</td>
<td>2,866</td>
<td>6.7</td>
</tr>
<tr>
<td>1975-76</td>
<td>3,963</td>
<td>6.7</td>
</tr>
<tr>
<td>1980-81</td>
<td>4,579</td>
<td>2.9</td>
</tr>
<tr>
<td>1985-86</td>
<td>5,088</td>
<td>3.5</td>
</tr>
<tr>
<td>1990-91</td>
<td>6,038</td>
<td>3.5</td>
</tr>
<tr>
<td>1996-97</td>
<td>9,887</td>
<td>8.6</td>
</tr>
<tr>
<td>2001-02</td>
<td>11,146</td>
<td>2.4</td>
</tr>
</tbody>
</table>

*: Enrolments include on-campus and off-campus, including distance education, enrolments. These enrolments represent students, rather than full-time equivalent students.

### Table 3

**Extra-UWI Public Services of UWI, Mona Faculty 2002-2003**

<table>
<thead>
<tr>
<th>Sector, Region, Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public and Political (Jamaica)</td>
<td>126</td>
</tr>
<tr>
<td>Academic &amp; Professional (Jamaica)</td>
<td>151</td>
</tr>
<tr>
<td>International</td>
<td>82</td>
</tr>
<tr>
<td>Presidents of Organisations &amp; Chairs of Boards/Committees</td>
<td>61</td>
</tr>
<tr>
<td>Private Sector (Jamaica)</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total Representation</strong></td>
<td><strong>533</strong></td>
</tr>
</tbody>
</table>

1 Includes boards/committees/task-forces on which UWI staff are represented professionally, rather than personally. Accordingly, excludes past-students associations, church boards and committees and neighbourhood associations. Also excludes membership of academic and professional associations (unless represented at executive committee levels).

2 This table underestimates the extra-UWI public service of Mona faculty because the data source is the 2002-2003 departmental report. For the tactical concern of space constraints, this report restricted reporting by Mona faculty to no more than seven public service commitments per faculty member. Since a not insignificant number of faculty members have a more extensive public service commitment than is reflected in this restriction, this seemingly tactical decision has the strategic implication of losing for public and internal dissemination, and the records of posterity, the full impact of the service activity of Mona faculty members.

Table 4

Comparative Tertiary Enrolment Ratios* and Public Expenditure

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<tr>
<td></td>
<td></td>
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<td>Female</td>
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<tr>
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<td>Sri Lanka</td>
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<td></td>
<td>Swaziland</td>
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</tbody>
</table>

*: Data on tertiary enrolment ratios are the latest reported by the Human Development Report (HDR); data on public expenditure on tertiary education are matched as closely as possible to TER data.

**: Data on these countries are included even though the Task-Force recognizes that these countries are not directly comparable to Jamaica, since, among other reasons, countries such as the United States provide research funding, in the form of grants from institutions such as the NIH, which are important to research universities, but that are not captured in statistics on public spending on higher education.

***: Data for Barbados are the last data reported by HDR: 1985-1987.

****: Over the 1995-1997 period, Jamaica was the fifth highest spender on tertiary education (as a proportion of GNP) among the countries of medium or low, development on which the United Nations reported. The top four countries were Jordan (2.6%), Lesotho (2.4%); Venezuela (1.8%) and Congo (1.7%).

### Table 5

**Professional Vacancies by Department and Period**

<table>
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<tr>
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<td>French &amp; German</td>
<td>Botany</td>
<td>Microbiology</td>
</tr>
<tr>
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<td>Pharmacology</td>
<td>Pharmacology</td>
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<td></td>
<td>Botany</td>
<td>Library Studies</td>
<td>Anaesthetics &amp; IC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anaesthetics &amp; IC</td>
<td>Life Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social &amp; Preventive Surgery</td>
<td></td>
</tr>
</tbody>
</table>

Departments in bold are those with professorial vacancies in at least three of the four periods.

Source: *Mona Campus Academic Staff Listing, Various Years.*
Strategic Challenges Confronting UWI, Mona

Table 6

Student-Staff Ratios, UWI, Mona (1955-2002)

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolled Students</th>
<th>Academic Staff</th>
<th>Student-Staff Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955-56</td>
<td>444</td>
<td>83</td>
<td>5.4</td>
</tr>
<tr>
<td>1960-61</td>
<td>977</td>
<td>132</td>
<td>7.4</td>
</tr>
<tr>
<td>1965-66</td>
<td>1,902</td>
<td>176</td>
<td>10.0</td>
</tr>
<tr>
<td>1970-71</td>
<td>2,866</td>
<td>222</td>
<td>12.9</td>
</tr>
<tr>
<td>1975-76</td>
<td>3,963</td>
<td>289</td>
<td>13.7</td>
</tr>
<tr>
<td>1980-81</td>
<td>4,579</td>
<td>319</td>
<td>14.4</td>
</tr>
<tr>
<td>1985-86</td>
<td>5,088</td>
<td>300</td>
<td>17.0</td>
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<tr>
<td>1990-91</td>
<td>6,038</td>
<td>305</td>
<td>19.8</td>
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<tr>
<td>1996-97</td>
<td>9,887</td>
<td>327</td>
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<tr>
<td>2001-0</td>
<td>11,146</td>
<td>439</td>
<td>25.4</td>
</tr>
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</table>

Source: University Calendars, Staff Listings, Various Years; Hamilton, prior citation.
### Table 7

**Comparative “Within-Region” Tuition Fees**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Tuition (US$, Per Annum)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bachelors</td>
</tr>
<tr>
<td>UWI, Mona</td>
<td>1,965</td>
</tr>
<tr>
<td>University of Botswana</td>
<td>1,620</td>
</tr>
<tr>
<td>Queensland University of Technology</td>
<td>5,874</td>
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<tr>
<td>Queens University Belfast</td>
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<tr>
<td>Texas A&amp;M</td>
<td>2,484</td>
</tr>
<tr>
<td>National University of Singapore</td>
<td>3,609</td>
</tr>
</tbody>
</table>

* The institutions represent five, of the seven, comparator institutions chosen by the Task-Force.

** Tuition levels represent average tuition costs across the varying programmes within the institution.

Source: *Websites of the universities.*