



## The Road to Excellence—Advancing Academic Distinction at UVM

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***Vision: To be among the nation's premier small research universities, preeminent in our comprehensive commitment to liberal education, environment, health, and public service***

***Mission: To create, evaluate, share, and apply knowledge and to prepare students to be accountable leaders who will bring to their work dedication to the global community, a grasp of complexity, effective problem-solving and communication skills, and an enduring commitment to learning and ethical conduct***

*Note: An earlier version of this paper was prepared in the summer of 2009 in order to bring into focus for further discussion strategic issues that represent significant opportunities and challenges for UVM. We laid out the train of thought summarized in the paper primarily for three reasons. First, we believe that it is essential that the University pursue the strategic directions outlined in the Strategic Plan 2009-2013 that was approved by the Faculty Senate and the Board of Trustees last year. We believe we must do so in ways that are a) informed by the recommendations submitted last December by Strategic Plan Action Idea Working Groups, b) responsive to the New England Association of Schools and Colleges (NEASC) reaccreditation process and to the report to the NEASC Commission on Institutions of Higher Education submitted by the Evaluation Team that visited UVM for NEASC over the course of four days in April of 2009, and c) aligned with the recommendations submitted by Professor Robert Taylor last semester on behalf of the Transformational Change Working Group that he chaired. Second, we believed that we must all bring intensified focus and urgency to acting on the University's strategic imperatives in light of demands for accountability and value that must inevitably grow as resource constraints locally and nationally make for an increasingly competitive environment. And, third, we believe that in order to succeed we must have a shared understanding of our current position, of the implications for both undergraduate and graduate education of our aspiration to continue to rise among the leading small research universities, and of what we must do to advance along the shortest feasible line between where we are now and where we wish to be. Now that essential measures arising from this analysis are actively being addressed through the work of the General Education Work Group and of the eight groups engaged in preparing proposals for the Transdisciplinary Research Initiative, we believe there is value in making this somewhat technical discussion available to the broader community. We welcome comments, critiques,*

*and suggestions (addressed to the three authors c/o the President at [daniel.fogel@uvm.edu](mailto:daniel.fogel@uvm.edu)) that will help to shape the dialogue going forward.*

We believe that the University of Vermont community is dedicated to the achievement of the unquestionably high yet realistic aspirations expressed in the University's Vision and Mission Statements. Together we aim to advance UVM as a center of learning where diverse, talented faculty, students, and staff create new knowledge that reshapes understanding of ourselves and of the world around us; where social processes are energized through which the best of what is thought and known is passed on from person to person; and where members of our community are imbued with an enduring passion for learning that will not only enrich their lives but also inspire and empower them to work to improve the quality of human life and to protect and preserve the planet that sustains us. To pursue these ends, the University of Vermont must continue to build a distinctive position among the nation's leading small research universities, recognized for overall academic quality fortified by spires of excellence that distinguish us in undergraduate education, in graduate and professional education, and in research, scholarship, and creative activity.

The Vision and Mission together draw on and point beyond enduring values that UVM shares with the other institutions—Harvard, Yale, Dartmouth, and Brown—that in the seventeenth and eighteenth centuries were established as the first five colleges in New England, all focused on the liberal arts and on moral instruction. Liberal education remains the core of our commitment to preparing students to be accountable, ethical leaders dedicated to the betterment of the larger community, a goal that encompasses our graduate and professional students and that above all animates our efforts to deliver programs of exceptional and demonstrable value to undergraduates.<sup>1</sup>

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<sup>1</sup> Classically, *liberal arts* referred to two sets of disciplines, the *trivium*, comprising grammar, rhetoric, and dialectic or logic, and the *quadrivium*, comprising geometry, arithmetic, music, and astronomy. In time, the term *liberal arts* has come to denote the study of the arts and humanities and of the social, physical, and life sciences, with the focus on cultivation of general intellectual development rather than on inculcation of technical skills. As such, the liberal arts at UVM are primarily located in the College of Arts and Sciences, but the reference here and in the University

In the latter half of the nineteenth century, UVM began to evolve into a modern research university. Our University, moreover, departed in 1865 from the paradigm represented by private universities and colleges, embracing its destiny as a public-private hybrid by accepting our Land-Grant designation. In its modern form, UVM conjoins the liberal arts tradition of a classical New England college and the breadth of a modern public university with its mandate to serve the public good as well as the needs and aspirations of individuals.

Today UVM exhibits all of the key characteristics of a research university—undergraduate degrees in a variety of the professions as well as in the liberal arts disciplines; graduate and professional degrees; advanced research facilities, including research libraries, laboratories, major scientific instrumentation, high-performance research computing, and substantial land holdings that support research; multidisciplinary research centers and institutes; significant programs in research, education, and public service supported by grants and contracts that came to \$133 million in new awards in the 2009 fiscal year (representing nearly one-quarter of University activities); and an expanding portfolio of intellectual property. With a total enrollment this fall (2009) of 13,391, UVM ranks 20<sup>th</sup> nationally in research expenditures among the 75 research universities with fewer than 15,000 students (please see the attached spreadsheet).

The Vision Statement challenges us to aspire to be among the best of research universities. So where does UVM stand today? Every ranking and rating schema has its perils, and attention to rankings should never distract us from our goal of creating, transmitting, and applying

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Vision Statement to *liberal education* is to a wider, University-wide commitment to go, even in professional curricula, beyond vocational education to the formation of well-rounded thinkers and communicators who will become lifelong learners and leaders, as envisioned explicitly in the Mission Statement. For a fuller articulation of this concept—so much broader in its implications than either the classical or modern meanings of the term *liberal arts*—see the Statement on Liberal Learning of the Association of American Colleges and Universities, available online at [http://www.aacu.org/About/statements/liberal\\_learning.cfm](http://www.aacu.org/About/statements/liberal_learning.cfm).

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knowledge that is consequential. Even so, it is important for us to have a sense of where this institution stands in comparison to peers with respect to metrics that are widely accepted as indicators of academic quality and impact.<sup>2</sup>

The Carnegie Foundation for the Improvement of Teaching has long maintained the standard classification of post-secondary institutions. Currently, it classifies research universities in three brackets: 1) Research Universities, Very High Research Activity (VHR); 2) Research Universities, High Research Activity (HR); and 3) Research Universities, Doctoral.<sup>3</sup> Carnegie classifies UVM as a Research University, High Research Activity. There are 198 schools in the combined Very High Research and High Research categories, 138 public institutions and 60 private institutions. Somewhat more than a third of these schools (75, or 37.8% of the total) had 15,000 degree-seeking students or fewer in the fall of 2007.<sup>4</sup> In this group of comparatively small research universities, 44 institutions are private and 31 are public.<sup>5</sup>

Within the group of 75 smaller institutions, UVM ranks in the top third by a number of measures. When all 75 schools are ranked by research expenditures, UVM is 20<sup>th</sup>. The top 20 schools ranked by research dollars—17 private and 3 public—will henceforth be referred to as “the leading small research universities.” UVM ranks at or near the bottom of the 20 leading

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<sup>2</sup> “If we could first know where we are and whither we are tending, we could better judge what to do, and how to do it,” as Abraham Lincoln noted in the first line of one of his greatest speeches (“A House Divided,” June, 1858).

<sup>3</sup>The first two categories roughly correspond to the Research I and Research II and to the Research University Intensive and Research University Extensive categories in older Carnegie taxonomies.

<sup>4</sup>The most reliable source of data on all United States post-secondary institutions is the federal Integrated Post-Secondary Data System (or IPEDS). Unless otherwise noted, IPEDS is the source of comparative data adduced in this paper. The most recent enrollment data available from IPEDS is for fall 2007 (note: IPEDS only requires submission of full data sets by institutions every other year, in odd-numbered years). For the IPEDS Executive Peer Tool, which allows users to compare data on a focus institution with data on a variety of customizable sets of comparison institutions, see <http://nces.ed.gov/IPEDSPAS/expt/>.

<sup>5</sup>The schools in the VHR group average just under 25,000 in enrollment and include at the upper end of the range a number of schools with between 40,000 and 50,000 students. The schools in the HR group average about 16,500 in enrollment and include at the upper end of the range a number of schools with between 30,000 and 45,000 students.

small research universities in many characteristics: last in total research expenditures, and 18<sup>th</sup> (ahead only of the two other public institutions) in undergraduate retention and graduation rates, in SAT scores of enrolled undergraduates, and in production of doctoral degrees. The distribution of the top 20 schools is steeply skewed toward the upper end in many categories: the top five schools in research dollars in 2006 (Duke, MIT, Washington University, Yale, and Vanderbilt) ranged from \$377 million to \$657 million in research expenditures, whereas the bottom five schools (UVM, Tufts, Utah State, Alaska, and Brown, in ascending order) ranged from \$122 million to \$158 million. Most of the institutions (14 of the 20) have medical schools.<sup>6</sup>

One might argue that by its placement in the top 20 of the 75 Carnegie research institutions with fewer than 15,000 students, UVM is already “among the nation’s premier small research universities.” UVM in fact excels in at least one category: the UVM College of Medicine ranks number one among the leading small research universities in the *U.S. News & World Report* ranking for Primary Care.<sup>7</sup> We do not, however, view our current status as evidence that we have arrived at our destination but, rather, as a sign that our drive for the highest level of excellence is realistic as well as aspirational. First, UVM’s position among the nation’s 75 small re-

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<sup>6</sup>The 20 schools in order by research expenditures (highest to lowest) are Duke, MIT, Washington University, Yale, Vanderbilt, Case Western, Rochester, Emory, Chicago, Cal Tech, Carnegie Mellon, Dartmouth, Yeshiva, Princeton, Wake Forest, Brown, the University of Alaska-Fairbanks, Utah State University, Tufts, and UVM. Of these only MIT, Cal Tech, Carnegie Mellon, Princeton, Alaska, and Utah State do not have medical schools. Research expenditures cited in this paper are from the data sets of the Center for Measuring University Performance (see [http://mup.asu.edu/research\\_data.html](http://mup.asu.edu/research_data.html)).

<sup>7</sup>UVM is ranked 6<sup>th</sup> nationally in Primary Care (*U.S. News & World Report*, spring, 2009) and 1<sup>st</sup> among the leading small research universities (followed by Rochester at 15<sup>th</sup> place nationally, by Dartmouth and Yeshiva, which are tied for 22<sup>nd</sup> nationally, by Washington University, 26<sup>th</sup>, Case Western Reserve, 37<sup>th</sup>, Tufts, 40<sup>th</sup>, Emory 42<sup>nd</sup>, Chicago, Duke, and Vanderbilt, tied for 45<sup>th</sup> and the rest of the group—Yale, Carnegie Mellon, and Wake Forest unranked at 50<sup>th</sup> or below). This is a gauge, of course, of the quality of physician education in patient care. It is not a ranking of research per se—and the same may be said for some of the other metrics we will be examining, including undergraduate input and output measures (e.g., SAT scores and graduation rates). These non-research metrics are nevertheless indicators of, and keys to, institutional success that help to locate UVM within the comparator group of institutions.

search universities supports the credibility of the UVM Vision—“to be among the nation’s premier small research universities.” Second, while UVM cannot realistically hope to climb to the pinnacle of this heavily skewed distribution, with strategic and focused effort we can move over time into the middle of the group of the top 20 small research universities. Third, initiatives to enhance academic quality and distinction are essential to maintain UVM’s competitiveness and success, including the ability—key to sustaining the University under our current funding model—to attract talented, diverse students.

Despite the high primary care ranking of our College of Medicine, by most measures UVM ranks at the lower end of the group of leading small research institutions. It is important to identify the reasons for this status and, once they are known, to determine whether it is appropriate, desirable, and feasible for UVM to advance within the group.

Because undergraduate education is the foundation of UVM’s strength as a small research university, let’s begin by looking at undergraduate performance indicators. These are instructive because, while it is possible to improve UVM’s performance on some indicators widely believed to correlate with academic quality, there are limits to what may be considered appropriate at UVM. Consider, for instance, SAT scores. Over the past ten years, UVM’s combined average verbal plus math score (currently designated as Critical Reading and Mathematics) of entering first-year undergraduates has risen by more than 50 points, from under 1130 to more than 1180, reaching a record high last fall (1186 in fall 2008, compared to 1128 in fall 1999). While it may be desirable to see the average go up by a similar amount in the course of the next decade—and certainly it would improve UVM’s position in the marketplace to have an SAT average above 1200, clearly an attainable goal—we submit that it would not be appropriate for Ver-

mont's Land-Grant University to seek to rise, even if it could, to the average for the 20 top small research universities, which, at close to 1,400, would mean that the number of Vermont students at UVM would be cut by nearly two-thirds, to our minds an unacceptable outcome.<sup>8</sup>

There are nonetheless two key measures on which we can and should seek to move undergraduate performance toward the midpoint within that select cohort: retention rates and graduation rates. We believe we should set as a goal for the next decade raising our first-to-second-year retention at least ten percentage points, from the mid-80s to the mid-90s. At the same time, we should work to improve our six-year graduation rate (the national benchmark) by at least 12 percentage points, to between 85% and 90%. That level of graduation performance—which would affirm the quality of the UVM educational experience as input measures such as SAT scores never can—would place us in the middle of the pack among the group of elite small research universities. We may, incidentally, already have achieved more than 25% of the proposed gain in graduation rate: the five-year graduation rate of the cohort that entered UVM in 2004 is well ahead of the six-year rate for the cohort that just graduated.<sup>9</sup>

Another key indicator is student diversity, and here, despite recent progress, we lag far behind the group of leading small research universities. Fully 92% of our undergraduate stu-

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<sup>8</sup>The College Board reports in its State Profile Report for Vermont that in 2007 fewer than 700 Vermont high school seniors had SAT scores that would place them at the average for the leading small research universities. If 70% of those top scorers applied to UVM, if 100% percent were accepted, if half of those accepted enrolled, and if UVM took no Vermonters with lower scores, then the number of entering Vermont undergraduates would drop from over 600 per year to under 250, an outcome that would seem to us to be inconsistent with UVM's public mission.

<sup>9</sup>In May of 2009, 72.7% of students who entered UVM as first-time degree-seeking undergraduates in the fall of 2003 graduated from UVM, UVM's highest six-year graduation rate in twenty years. Significant retention gains should allow us to meet overall enrollment targets with larger sophomore, junior, and senior classes, taking pressure off first-year enrollments and allowing us to build academic quality and diversity within smaller entering classes. Thus, while this year's all-time largest undergraduate class has very strong academic credentials and the greatest diversity in UVM history, as retention improves we should be able to enroll smaller entering classes that are academically stronger and significantly more diverse. As entering classes shrink, we will need, in turn and over time, to shift course offerings from lower-division courses, staffed in part by lecturers, to upper-division courses taught by tenure-track faculty.

dents, 83% of our graduate students, and 79% of our first-professional students in the fall of 2007 were white non-Hispanic, compared to medians of 57%, 49%, and 61% respectively for the nineteen other institutions.<sup>10</sup> Given UVM's strong commitment to diversity as an indispensable element of academic excellence—and given our commitment to preparing students to be leaders in diverse workplaces, diverse communities, and a diverse world—we must not rest content with the recent gains we have made in student diversity. We should be heartened, to be sure, to see that UVM has reached a historic high of nearly 12% African-American, Latino/Latina, Asian-American, and Native American (ALANA) students in the first-year undergraduate class in the fall of 2009 (up from an old record of just under 8%), and even more encouraged by seeing the leading edge of that growth in the UVM Honors College, in which a little more than 20% of the first-year enrollment is ALANA. That Honors leads the way adds a point of emphasis to our conviction that it is primarily by building academic quality that UVM will continue to attract increasing numbers of strong, diverse students—and we believe that the same thing is true of the critical challenge of building faculty and staff diversity.

As for UVM's standing as a center of research and graduate education, the University has developed significant momentum that promises to advance us at least moderately within the group of leading small research universities. This past year, grant and contract awards through UVM's Office of Sponsored Programs reached a high watermark of over \$133 million, a 7% gain over the previous record. Continuing gains would move the University up several places within the lower 40% of the distribution comprising Yeshiva, Princeton, Wake Forest, Brown, Alaska, Utah State, and Tufts (all schools with research expenditures below \$200 million). More

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<sup>10</sup>Our shortfalls in diversity are across the board. In 2007, for example, our percentage of black undergraduates was just 1% compared to the 7% median for the group of 19 comparator institutions; Hispanic, 2% compared to 6%; Asian or Pacific Islander, 2% compared to 13%; and international, 1% compared to 7%.

dramatic growth is likely in the next few years at UVM and elsewhere with the infusion into granting agencies of federal stimulus dollars; the outlook may be particularly strong for Vermont since UVM's lead grantor, the National Institutes of Health, has received by far the largest funding increase. We believe the University can advance even more than would otherwise be expected by providing incentives for the appointment of additional post-doctoral fellows—a larger cohort of post-docs would support increased research productivity and would boost UVM on a key indicator of research vitality. In each of two categories, members of the national academies (science, engineering, and medicine) and recipients of faculty awards, UVM needs only single digit gains in academicians and awardees to move into the top 15 schools by these measures. In addition, UVM is highly likely to move in the next four to six years toward production of more than 100 doctoral degrees awarded per year, simply by having grown doctoral enrollment by 79% since 2001 (from 300 to 538 between 2001 and 2009).<sup>11</sup>

We cannot over-emphasize the interdependence of the projects of building quality and visibility in undergraduate education and in graduate education and research. Indeed, what may distinguish us from liberal arts colleges—and perhaps from other small research universities as well—is our commitment to ensuring that UVM is a venue where the education of students and the creation of new knowledge are on equal footing in their relevance and importance to the mission of the University.

The linkage between research, graduate education, and undergraduate education was underlined for UVM in the report prepared for the Board of Trustees by the higher education practice group of PricewaterhouseCoopers (PwC) in May of 2004. As PwC said, “While growth

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<sup>11</sup> Data in this paper and in the attached spreadsheet on the numbers of post-doctoral fellows, national academy memberships, faculty awards, and doctoral degree production are from the data sets of the Center for Measuring University Performance (see n. 6).

in graduate programs represents a net cost to UVM, growth in masters and especially doctoral programs is a key element in growing UVM's reputation and perceived value. Therefore, the ability to grow graduate programs is part of the foundation for the ability to grow the size and quality of the undergraduate population as well as to attract and retain desired faculty."

More recently, extensive research conducted for the University in 2007-2008 demonstrated that the top factors influencing college choice among the highly motivated and diverse undergraduate students UVM is seeking to attract are clustered under the heading of academic quality: only 6 attributes out of 28 ranked for "motivating power" scored above 80 on a scale of 0 to 100, and 5 of the 6 were focused on academic quality, challenge, strength of faculty, reputation of programs in the disciplines, and other attributes widely considered to be correlative with a strong profile in research and graduate education. That analysis supported the conclusion that UVM's strongest positioning was the one of five presented to interviewees, a positioning tagged as "the public ivy" though that particular phrase was not used with the interviewees.<sup>12</sup>

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<sup>12</sup>The study, conducted by Kevin Hartley and the Copernicus Group (and presented to both the Faculty Senate and the Board of Trustees), entailed 1,239 interviewees in four groups: first-year undergraduates enrolled at UVM (257 interviews), first-years who were admitted but did not enroll at UVM (228 interviews), first-years enrolled at other colleges who did not apply to UVM (213 interviews), and high school seniors (541 interviews). Of the 6 highly motivating factors in college choice, five fell under the heading "Academic Quality": 1) "Has a strong program for your desired major area of study" (score 87), 2) "Provides a challenging academic experience" (score 84), 3) "Has first-rate academic and classroom facilities" (score 84), 4) "Has a good track record for placing students in top graduate schools and highly sought after jobs" (score 82), and 5) "Has high quality faculty who are recognized scholars in their fields" (score 81). The 6<sup>th</sup> among these highly motivating factors, under the heading "Fun College Experience," was "Is a fun place to go to school" (score 83). The first 3 factors just cited received the highest scores among all 28 factors presented to the interviewees. By contrast, other attributes undeniably part of UVM's appeal scored much lower as motivating factors in college choice, including the following: "Is located in an exciting college town" (score 67), "Offers courses that are more interactive or experiential, and less lecture oriented" (score 65), "Offers small class sizes where students get to know professors one on one" (score 67), and "Is a place where senior faculty, not graduate students, teach undergraduates" (score 63). The five tested positioning statements were tagged "Environment," "Public Ivy," "Social Responsibility," "Experiential Learning/Innovative Learning Model," and "Balanced Life." The "Public Ivy" positioning statement, which clearly linked undergraduate appeal to the presence of graduate and research programs, read as follows: "The University of Vermont has a deep commitment to excellence in education – an expression of its belief that the outstanding education of talented students is the best foundation for creating the leaders of tomorrow. Set on an historic and beautiful campus, the University of Vermont is one of the

The short answer to the question of whether UVM can sustain its position and advance within the group of leading small research universities is that we can and we must. In challenging economic times, however, we must do so with intensified focus on academic quality and distinction, supported by the will to concentrate limited resources on our highest priorities in undergraduate and graduate education. It is essential, moreover, that decisions as to where to invest be arrived at through collaborative processes, including dialogue among the Provost, the Vice President for Research, and the Deans; within and throughout the faculty of the University; and Faculty Senate processes with respect to the potential for the creation of new programs and for the sunsetting of existing ones.

We must now focus resources on the improvement of undergraduate education and the undergraduate experience along lines that have been indicated for generations at UVM. This direction was most recently given fresh point and impetus in reports from our institutional accreditor and from the campus community, including the Transformational Change Working Group chaired last spring by Professor Robert Taylor. That group recommended development and implementation of a general education requirement; enhancement of the first-year experience; intensified attention to academic, career, and personal advising; expansion and enrichment of our residential learning communities; and expansion of experiential learning opportunities, including Service-Learning and, especially, the undergraduate research experiences, all of which leverage

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oldest universities in the country. Although a small public institution, it has the intellectual caliber of the best private schools in the country – highly talented students and faculty, an excellent liberal arts college, thriving undergraduate and graduate professional schools, including a highly ranked medical school, and first-rate research programs. Beyond providing an excellent academic experience, the University of Vermont’s culture and relatively small size create an open and accepting, close-knit community. The University also embodies a strong sense of social, economic and environmental responsibility – qualities that are vital to successful leadership in the 21st century.”

UVM's character as a center of research and graduate education for the benefit of undergraduates.

We believe that simultaneously we must identify—and invest differentially in—a handful of transdisciplinary areas of research, scholarship, and creative activity in which faculty and students across campus will be able to participate, making the most of UVM's human scale in order to build critical mass in areas positioned to vie for national distinction. Over the coming years, we must, moreover, develop a reserve of tenure-track positions and graduate assistantships assignable to those yet-to-be-determined priority areas.<sup>13</sup> The Transdisciplinary Research Initiative to identify spires of excellence is now under way, and faculty-led work groups, drawn from the one-fifth of all tenure-track and research faculty who volunteered to participate actively in the process, will be seeking to make the case for narrowly focused niche areas with the potential to become UVM's signatures of excellence under eight broad rubrics that were designed to allow for participation by faculty in every discipline, college, and school. Simultaneously we have deferred about half of the faculty searches that might otherwise have been undertaken until that proposal and selection process has been completed and hiring can proceed in strategic alignment under the coordinated direction of the Provost and the Deans. In concert with our governing board, we believe that through pursuit of this course UVM's value will be enhanced, our compet-

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<sup>13</sup> Since the priority areas will be transdisciplinary, such hires may be in departments throughout the University, including disciplines that do not currently have doctoral or even master's programs. For example, a doctorate in Public Policy might militate for appointments of highly distinguished faculty in departments that do not now offer doctorates: among many others, Economics, Political Science, Nursing, Business Administration, Geography, Anthropology, and Community Development and Applied Economics. Consistent with UVM values and traditions, both new and continuing faculty would be expected to serve the missions of their departments in undergraduate education, teaching undergraduate majors as well as participating in graduate education by occasionally offering graduate seminars, by directing theses and dissertations, and by serving on graduate students' committees.

itive advantage will be strengthened, and we will attain an ever-more important and secure position within the constellation of America's finest colleges and universities.

Finally, we believe that the long-term advance of the University depends above all on the quality, ingenuity, resourcefulness, and ambition of the faculty. The University of Vermont combines exceptionally strong commitments to the service mission of a public flagship with our small size and dedication to academic excellence. Imbued with the distinctive traditions and values of Vermont—practicality, environmental stewardship, civic duty, respect for individuality, and a determination to make a difference for the better in the world—the University of the Green Mountains today calls upon all members of the UVM community to dedicate themselves to realization of this vision of success. In the face of the challenges UVM faces—challenges facing higher education institutions nationally and the country at large—we cannot relinquish our commitment to UVM's special academic destiny and quality. We believe that the rewards for all of us—individually and collectively, for our University, our community, and the State of Vermont—will be ample and various as we accomplish this great undertaking.

**Leading Small Research Universitas, Appendix to the Road to Excellence**

UnitID	Institution	Fall 2007 ALL Degree Seeking HEADCOUNT	Control	Medical School, Yes/No	Total research expenditures, 2006, in 1000s	Post-Docs 2006	National Academy Members 2007	Faculty Awards 2007	SAT Critical Reading 25th percentile score of first-time degree/certificate-seeking undergraduate students: Fall 2007	SAT Critical Reading 75th percentile score of first-time degree/certificate-seeking undergraduate students: Fall 2007	SAT Math 25th percentile score of first-time degree/certificate-seeking undergraduate students: Fall 2007	SAT Math 75th percentile score of first-time degree/certificate-seeking undergraduate students: Fall 2007	Natl Merit Scholars, 2007	Grad rate overall full-time first-time degree/certificate-seeking undergraduates	Percent of full-time first-time degree/certificate-seeking students in fall 2006 returning in fall 2007	Number of Doctor's degrees awarded: Academic year 2006-2007	Value of endowment assets (end of year) per FTE enrollment: Fiscal year 2007	Instruction/ research and public service FTE staff: Fall 2007	Executive/a dministrative and managerial FTE staff: Fall 2007
198419	Duke University	13,464	Private	Y	657,080	771	54	30	650	760	680	780	106	94	97	277	322,985	3,211	1,075
166683	Massachusetts Institute of Technology	10,211	Private	N	600,748	971	239	36	660	760	720	800	171	93	98	601	990,218	4,810	826
179867	Washington University in St Louis	12,596	Private	Y	547,674	411	43	33	680	750	690	780	228	92	97	347	477,066	3,056	1,176
130794	Yale University	11,434	Private	Y	460,075	978	106	42	700	790	690	790	240	96	100	360	1,785,464	3,742	1,876
221999	Vanderbilt University	11,811	Private	Y	376,893	505	20	25	640	740	660	740	184	91	96	274	336,672	3,008	1,181
201645	Case Western Reserve University	9,757	Private	Y	369,264	101	17	9	580	690	620	720	41	81	91	232	212,002	1,386	823
195030	University of Rochester	9,167	Private	Y	366,658	290	27	12	600	700	630	720	32	81	96	239	198,583	2,240	1,470
139658	Emory University	12,482	Private	Y	345,989	605	23	12	640	730	660	740	73	87	94	217	398,377	3,138	786
144050	University of Chicago	14,510	Private	Y	305,301	312	52	26	670	770	650	760	205	90	98	357	400,125	3,321	598
110404	California Institute of Technology	2,133	Private	N	270,269	493	107	20	700	780	770	800	36	89	98	206	934,409	944	280
211440	Carnegie Mellon University	10,235	Private	N	212,506	166	30	11	610	710	680	780	32	87	96	205	119,376	1,240	703
182670	Dartmouth College	5,770	Private	Y	200,277	203	14	9	670	770	680	780	55	93	98	73	723,675	843	305
197708	Yeshiva University	6,358	Private	Y	189,416	363	13	8	540	680	560	680	3	84	84	128	206,794	1,083	266
186131	Princeton University	7,249	Private	N	188,165	340	101	34	690	790	700	790	211	95	97	332	2,296,659	1,360	243
199847	Wake Forest University	6,781	Private	Y	183,129	154	2	4	610	700	630	710	14	89	94	35	189,305	1,448	590
217156	Brown University	7,972	Private	Y	157,926	200	18	16	660	760	670	770	94	95	98	170	336,862	1,078	696
102614	University of Alaska Fairbanks	5,803	Public	N	153,470	0	1	2	430	550	450	580	0	25	72	33	13,216	792	56
230728	Utah State University	14,709	Public	N	138,670	29	1	2	480	610	500	630	0	45	74	85	10,266	781	142
168148	Tufts University	9,738	Private	Y	128,965	350	8	6	670	750	670	740	63	89	96	101	143,060	924	281
231174	University of Vermont	11,189	Public	Y	121,841	79	2	3	540	630	540	640	5	72	86	57	29,829	1,169	100

**Notes on some current UVM data points:**

**Full degree-seeking enrollment fall 2009: 12,380**

**Doctorates awarded FY 2009: 80**

**National Merit Scholars, fall 2009: 12**

**Faculty awards, 2008-2009: 6**