
October 14, 2009

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TO: MTU President Dr. Glenn Mroz, and Members of Board of Control: Ms. Lenora Ashford, Mr. Thomas L. Baldini, Dr. Kathryn I. Clark, Mr. Russell A. Gronevelt, Mr. Stephen J. Hicks, Dr. Ruth A. Reck, Ms. Martha K. Richardson,
FROM: Dr. Madhukar Vable, ME-EM Department, Michigan Technological University, Houghton, MI 49931
RE: Return of Teaching Awards

It is with profound regret and after long agonizing thinking that I am returning my Michigan Technological University Distinguished Teaching award¹. I am also returning the Michigan Association Governing Board (MAGB) of State University award that the Michigan State Legislature bestows and tending my resignation from the Michigan Tech. Academy of Teaching Excellence (letters attached).

I elaborate the reasons for returning these teaching accolades using my personal experiences but the purpose is to show you that my experiences are a symptoms of a much bigger problem that afflicts Michigan Tech., and my hope is that as stewards of the University you would like to know and address the bigger problem.

In 1998, I received the MTU's Distinguished Teaching award. The award plaque quotes Henry Adams "A teacher affects eternity; he can never tell where his influence stops." Mr. James Mitchell, Chair of Board of Control, letter to me said "It is outstanding individuals such as yourself that have earned Michigan Tech. its fine reputation." That year I received the average salary increase in the university.

In 1999, I received MAGB award that recognizes excellence of work in Michigan's public university. Governor Engler's letter to me said: "Recipients of this award are among America's brightest and most effective educators.....You have helped shape the future of our state and nation, and for that I thank you." That year my promotion to full professor was denied and I received below average salary increase.

My above two experience are consistent with the evolving culture at Michigan Tech. The average salary² of MTU Distinguished Teaching award winners between 1998-2008 was \$76,211, and there are 5 Associate Professor in the ranks. The average salary of MTU Distinguished Research award winners was \$101,471 and all were promoted to Full Professor.

Starting in 2000, two pernicious policies were implemented in my department by the Chair. (1) The obligation of all tenured faculty used to be equal to the total number of courses the department was obligated to teach divided by number of faculty. Faculty members could release themselves of teaching a course by paying 15% of their annual salary from research grants for hiring of temporary faculty to cover department teaching obligation. In the new policy a faculty member started with an obligation of teaching 6 sections (courses) per year but the teaching assignment was reduced by one section for each graduate research assistant (GRA) advised (see Appendix A1). A section could consist of 44 undergraduate students. He considers the scholarship of book writing³ to be on par with external service (see Appendix A2) as it is not an outcome of funded research. (2) He also changed the calculation of merit points used for salary increases. A faculty member got 19 points (minimum number of credits a graduate student must register each year) for each graduate student advised but got only 3 points for teaching an undergraduate 3 credit course of 44 or 500 students—in other words, 600% more merit points for teaching each graduate student over teaching a class of undergraduate students. These changes by the department Chair have made mockery of undergraduate education, unfunded scholarship and represents a massive transfer of resources⁴ from undergraduate education to finance funded research. I pointed all this out to him in 2000 (see Appendix A3) to no avail. Good teaching requires time, but neither the quality nor the quantity of teaching has any impact on workload or on salary increases in my department.

Having tried unsuccessfully for seven years to address the problems within the department, I finally initiated the University grievance procedure in 2007 to no avail as it is designed to test the perseverance of the grievant and the administrators ignore any inconvenient truths or committee recommendations. However, the two years of the grievance process forced me to consider why intelligent people who care about Tech. cannot or will not see the absurdity and the consequences of one course release per GRA; 600% more merit points for teaching each graduate student over a class of undergraduate students; and scholarship of book writing as service. I found my answer in history: *An irrational prejudice can be rationalized when the prejudice is endemic to a culture*. Think of racism or sexism (among many other systems) in which humanity rationalized

1. The original plaque is sent to President Mroz but copy is attached with this letter. Also attached are other relevant documents.

2. Used the salary data of 1998 in the Associate/Full Professor category.

3. I have published 3 books which is bringing international recognition to MTU and brings contemporary topics into the student education.

4. In just direct cost, resource value transferred would be between \$46,200-\$100,188 [44 students x 3 credits/student x \$/credit]. The lower value calculated using instate and upper value using out of state tuition. If indirect cost (52%) is also included, as we do with research contract, it would be \$70,224-\$152,286.

and even felt good for the irrational, unjustifiable, immoral prejudices. In a similar manner prejudices in the evolving culture at Tech. are severely and adversely affecting education, particularly undergraduate education, and unfunded scholarship and my hope is you will address these cultural biases.

The first of the two toxic ideas affecting Tech. is *administration by numbers in which if we connect the right numbers we create a picture of success*. Let me elaborate the toxicity in the number-culture⁵ with a specific example. Acceptance rate (selectivity in admission of students) has gone from 98% to 74% in recent years. This significant improvement in academic quality of student body is not seen in the classroom by me or my colleagues because most of it is an artifact of methodology (see Appendix A4) of acceptance rate calculations. But the acceptance numbers makes us look good even though the numbers are not a measure of reality. In this number-culture where each department goal is to increase number of graduate students, one course release per GRA, 600% more merit points for teaching each graduate student over a class of undergraduate students, and dismissal of book writing⁶ as service is rationalized with gusto as part of strategy to achieve our number goals. The number-culture does another damage. Identifying good from bad teachers can be done but having many variables⁷ to measure effective and excellent teaching is not possible. We create more dedicated teachers when the university culture respects and rewards good teaching. In the drum beat of number of research dollars, number of papers, number of Ph.D students, etc., and the associated reward system based on numbers, the damage to teaching and undergraduate education is a natural and inevitable consequence.

The second toxic idea affecting us comes from outside, which we can no more use to justify our actions than our children could when they wanted to do something improper because all their peers were doing it. The toxic idea is the trickle down success model: *If we have world renowned faculty then we will have world renowned education of students*. The use of 'world renowned faculty' preempts and restricts the definition of excellence to scholarship and the faulty premises damages education in many ways, two of which I elaborate next. (1) Experience in our nation's premier research universities show that more famous a faculty member is, the less undergraduate teaching (s)he does. This is the model we want to emulate. Scholarship and education are tremendously synergistic but it has nothing to do with fame. Pursuit of scholarly fame, i.e., the fame-game, is so time and energy intensive that it comes at the expense of time and energy needed to do good teaching. To create more time for faculty to play the fame-game, universities (including ours) promote teaching of foundational courses (courses on which degree programs are constructed) in a format of large lectures followed by tutorials conducted by graduate students. Learning centers staffed by students reduce the traffic to the faculty offices by students seeking help. This teaching-learning model is increasingly transferring the responsibility of teaching by the faculty on to learning by the students. Smart students can survive this model but for most it causes high frustration and stress. One course release per GRA is an attempt to create time for the fame-game at the expense of undergraduates. (2) World renowned faculty require salaries commensurate with their fame, so we build them salary pedestals and lose them to universities with deeper pockets. But the salary pedestals are built at the expense of those who do not play the fame-game but whose dedication to teaching keeps our university going—the terrible salary compression at MTU is just one of the consequence. The salary and rank differences between the MTU Distinguished Teacher and Researcher symbolizes the problem. The 600% more merit points for teaching each graduate student over teaching a class of undergraduate students is a symptom of the same problem.

The worst part of the evolving culture at MTU is the inversion of our fundamental values. The primary mission of teaching is less respected and rewarded than the secondary mission of research. Impacting peers is more important than impacting the lives of our students. Undergraduate education that should be the beneficiary of research and scholarship⁸ is increasingly seen as taking time from pursuit of scholarly fame. The new ranks of Research Professor who are not expected to do undergraduate education, and Practicing Professor who do only undergraduate education but are not expected to do research, is testimony that we no longer believe in the synergy of scholarship and undergraduate education. The hyperbolic rhetoric about importance of teaching on awards, letters and in public pronouncements by administrators have little to do with reality. A dedicated teacher is becoming THE SUCKER in the system. I will continue to do my best in teaching and scholarship but I am no longer willing to perpetuate the hypocrisy that excellent teaching that my awards symbolize is still valued at Tech. I therefore am returning my teaching awards.

5. I described the danger of the number-culture in my article posted on <http://www.mtulode.com/opinion/2008/12/03/strategic-planning-can-be-a-faustian-bargain/>

6. Note book writing does bring world recognition to faculty and the university but is not an outcome of funded research.

7. In my department merit salary algorithm we have 14 variables for service, 27 for research, but only 3 for teaching.

8. There are niche programs that are exception to this statement and we are rightly proud of them but these do not justify deterioration of overall undergraduate education.

Appendix A1: e-mail exchange about 1 course release per GRA

From: Madhukar Vable <mavable@mtu.edu>
Subject: Re: [Fwd: Teaching Assignment and Merit Pay]
To: "Predebon, William W." <wwpredeb@mtu.edu>
Cc: mavable@mtu.edu
Date: Monday, April 23, 2007, 12:51 PM

Bill

In our meeting today my understanding how you do teaching assignment is as follows:

(1) A full teaching assignment is 6 course sections per year if a faculty member is doing committee assignments. A course section is 40 students.

(2) One course release for each GRA supported by the faculty. For GTA's one course total release, that does not change with number of GTA's advised.

(3) Neither goals review or vitae information (beside GRA) has any bearing on teaching assignments. Any other release is by faculty petitioning the Chair.

Is the above correct?

Madhu

Subject: Re: [Fwd: Teaching Assignment and Merit Pay]
From: "Predebon, William W." <wwpredeb@mtu.edu>
Date: Thu, April 26, 2007 9:21 pm
To: "Madhukar Vable" <mavable@mtu.edu>
Cc: "Predebon, William W." <wwpredeb@mtu.edu>

I would like to clarify a few things.

1. This is correct with the addition that I expect associate professors and professors to be either chairing one of our standing committees or active on more than one committee.

2. The way I account for journal publications and other publications is as a product of advising graduate students. I expect publications to be an output of advising/graduating graduate students. Given that there are journal publications I give one course release for each externally funded graduate student, particularly PhD students and contracts that have over-head. Your comment on GTA's is correct.

3. The vita information is what is put into the information I review in deterring teaching assignments based the procedure explained in 2 above. In the goals review a faculty member can request professional development release. Or they can make an appointment to do that. I sent out e-mails in the last few years indicating that. As I explained in your office, in the request for a course release for professional development, there are expectations, such as, a proposal, journal articles, book, etc. I believe I have granted professional development release for every faculty member who has requested it. I can give you some names if you wish.

I hope this helps.

Thanks,

Bill

Appendix A2: Survey form used for distribution of faculty effort

This is the survey form used in collecting information about distribution of faculty effort. Note 4 shows that scholarship of book writing is viewed on par with external service.

Department of Mechanical Engineering-Engineering Mechanics

AY 2009-
2010

Percent time spent on:

Name		Undegrad and Grad Teaching	Grad Advising and Research	Univer sity Service	External Activities	Total (must = 100)
	(actual)					0
	(desired)					0

Notes:

- 1) Estimate the actual time you spend on each of these activities (actual).
- 2) Indicate the ideal time you would like to spend on each of these activities (desired).
- 3) Undergraduate and Graduate Teaching should include courses, labs, senior design, and enterprise.
- 4) External Activities should include, text-book writing, and external service in professional societies/organizations/government (which includes reviewer for journals, panels).

Appendix A3: e-mail describing damage from the workload algorithm

X-Authentication-Warning: sosue.me.mtu.edu: Host ppp035.tc.mtu.edu
[141.219.101.65] claimed to be ppp
X-Sender: mavable@pop.me.mtu.edu
Date: Thu, 10 Feb 2000 08:57:59 -0500
To: Predebon
From: Madhu Vable
Subject: Re: Faculty Workload Algorithm
Cc: mefac@mtu.edu
Mime-Version: 1.0

Bill

I am sorry that I had to leave the department meeting just after your presentation of the Work-load Algorithm and hence was unable to participate or comment on your algorithm. I am sending you this e-mail and copying it to MEEM faculty in the hope that it shall spark an open discussion rather than the unhappiness I have heard expressed in the corridors.

(i) Your starting point and hence background justification is that the state mandates 12 credit/semester i.e., 4 -3 credit courses. This I understand. But your statement in the meeting that each course has 45 students needs elaboration. The number of student/course you use is important. For if it is four courses with (suppose) twenty students/course then two courses with 45 student is close to the full state mandated requirement, with no service or research. This teaching effort will most certainly burn any faculty in very short time, assuming that a single faculty member could put the effort. Thus, it is hard for me to see how this number could be mandated by any state government.

(ii) Your Modified Option C, where you equate 1graduate student advised as equivalent to one undergraduate course (presumably of 45 students) is extremely concerning. Intrinsic to this equivalency is that the education of one graduate student is equivalent to an education of 45 undergraduate students. I do not think our department would want to defend this statement in a public forum. In terms of faculty effort the two are not comparable. In terms of financial benefit to the university the two are not comparable. But as significantly it represents transfer of resources which the undergraduate pays to subsidize a graduate student at an unprecedented level by any department in the university.

(iii) Writing of papers or textbooks, presentation at conferences, consulting, etc. are some of the scholarly values that benefit education and are the necessary intellectual stimulus that faculty need to keep their morale and interest in education. Three course of 45 students/course with active service as the nominal requirement, leaves little time for pursuit of any scholarly activity. A problem that is further exacerbated by your model in the fact that it ignores all factors that increase teaching effort. Factors such as new preparation, lab. or design course vs. lecture courses, graduate vs. undergraduate courses etc. In the current scheme where we have two courses as the nominal teaching requirement, there is time available to absorb the additional effort occasionally, but in your proposed model there is no time available to absorb the extra teaching effort. The net consequence will be a degradation of both education and scholarship.

There are other issues that are raised by your work-load algorithm. But these can be brought out later if others feel as strongly about the inadvisability of implementing the work-load algorithm you have proposed. I hope faculty will express their opinion by e-mail so that we can conduct the discussion in an expeditious manner.

Madhu

Appendix A4: Acceptance Rate

Following are the excerpts from the minutes of University Senate meetings related to several factors affecting our acceptance rates. I have taken only the relevant paragraphs and underlined the factors affecting our acceptance rate. The factors include: free applications, counting of incomplete applications, dropping of students from the data base who we have accepted but who go elsewhere.

The minutes of the University Senate meetings are posted on the web page <http://www.admin.mtu.edu/usenate/>

1. Minutes of Meeting 455; 17 October 2007

Cook (VP Student Affairs) reported on the fall 2007 enrollment. The applications were 5046, up by 436 (9%). Acceptances were 4233, up 461 (12%). First-time freshmen included 918 residents (up 107), 245 non-residents (down 85), and 59 international (up 31). Grad students included 139 M. S. (down 30) and 72 Ph. D. (down 5). The total enrollment is 6738 (up 209), 80 above the goal. The number of students on campus is 6667, the largest enrollment since 1992. These positive figures are despite the decrease in distance learning.

Senator Vable stated that incorporating of incomplete applications in total applications was started two years ago and inquired about the number accepted and then enrolled this year. He asked if the increase included the incomplete applications. Les Cook replied that 5046 included both the complete and incomplete applications. Vable asked how many incomplete applications were in the count. John Lehman (Asst. VP Enrollment Svcs) responded that they count all the acceptances. Of the 5046 total u-grad applications, 4576 of them were completed (91%).

2. Minutes of Meeting 465; 17 September 2008

John Lehman reported that this fall MichiganTech enrolled the largest first-year class since 1983: new first-year students on campus number 1,365, up 143 students over 2007. The number of first-time transfer students enrolled is 215, down 13 students from 2007. Applications were up 17 percent, and acceptances were up 9 percent. The acceptance rate including incomplete applications was 74.9 percent; the acceptance rate (subtracting incomplete applications) was 84 percent. Measured both ways, the acceptance rate was lower than any year in the period reported (2004-08).

3. Minutes of Meeting 478; 23 September 2009

Lehman explained the application process, which begins with collecting names of around 30,000 prospective students and receiving inquiries from about 25,000 prospective students. Once anyone starts to fill out an application, whether or not they complete it, they are considered applicants, which normally number around 5,500. Completed applications number around 4,500, and of those about 4,000 are admitted. If they pay the \$100 enrollment deposit they are considered confirmed (about 1,700 per year), and if they show up in classes they are considered enrolled (about 1,400 per year). This process explains why there is a drop in total accepted applications in spring every year. If a student is admitted prior to May 1 and doesn't pay the enrollment deposit or contacts Michigan Tech to say they are enrolling at another institution, they are considered cancelled applicants. Around May, these cancelled applicants are dropped from the system, and at that time current accepted applicants shows a drop. The cancelled applicants are dropped so that the number of seats and sections are not inflated.

Moran asked whether Michigan Tech accepts 80 percent of applicants. Lehman explained that the acceptance rate is acceptances divided by the number of applications, which includes anyone who has started the application process. Over the past five years, the acceptance rate has gone from 84.7 percent to 73.2 percent in 2009. But the reject rate, the percentage of completed applications rejected, is about 11 percent.

Rudiger asked whether there is an application fee. Lehman said there is no application fee, and that is one of the reasons the acceptance rate has gone down. Many institutions no longer require an application fee, and as a consequence students apply to many more institutions.



STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN ENGLER
GOVERNOR

April 6, 1999

Dr. Madhukar Vable
Mechanical Engineering - Engineering Mechanics
1400 Townsend Drive
Michigan Technological University
Houghton, MI 49931

Dear Dr. Vable:

As Governor of the State of Michigan, it is my pleasure to congratulate you for receiving a 1999 Honors Convocation Award from the Michigan Association of Governing Boards of State Universities.

This is truly a significant accomplishment! Recipients of this award are among America's brightest and most effective educators. Your campus and community involvement, communication and leadership skills, and research efforts are worthy of the highest recognition and praise. I hope that you will take great pride in your achievements as an educator and in being chosen to receive the Honors Convocation Award. You have helped shape the future of our state and nation, and for that I thank you.

Once again, congratulations! Please accept my warm regards and best wishes for continued success.

Sincerely,

A handwritten signature in black ink that reads "John Engler". The signature is fluid and cursive, with the first name "John" being particularly prominent.

John Engler
Governor

Michigan Technological University



507 Administration Building
1400 Townsend Drive, Houghton, Michigan 49931-1295

Board of Control, 906/487-2267

James A. Mitchell, Chair, Grand Rapids, MI
Martin G. Lagina, Vice Chair, Traverse City, MI
Alton R. Berquist, Menominee, MI
James B. Henderson III, Bloomfield Hills, MI
Ruth A. Reck, Davis, CA
Kenneth E. Rowe, Calumet, MI

Robert M. Thompson, Plymouth, MI
Claude A. Verbal, Flint, MI
Curtis J. Tompkins, President, ex-officio
Dale R. Tahtinen, Secretary
William J. McGarry, Treasurer

September 18, 1998

Dr. Madhukar Vable
Department of Mechanical Engineering
Engineering Mechanics
Michigan Technological University
1400 Townsend Drive
Houghton, MI 49931

Dear Dr. Vable:

On behalf of the Board of Control, I would like to congratulate you on receiving Michigan Tech's 1998 Distinguished Teaching Award.

Michigan Tech is proud of you and your achievements. It is outstanding individuals like yourself that have earned Michigan Tech its fine reputation.

Sincerely,

A handwritten signature in black ink, appearing to read 'James A. Mitchell', written over a large, stylized initial 'J'.

James A. Mitchell
Chair, Board of Control

MICHIGAN TECHNOLOGICAL UNIVERSITY



Distinguished Teaching Award
presented to

Madhukar Vable

*in recognition of inspirational guidance, genuine interest
in students as individuals, and scholarly leadership.*

September 23, 1998
Houghton, Michigan

Curtis J. Emplena
President

"A teacher affects eternity; he can never tell where his influence stops." Henry Adams