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Optimal Enrollment Targets for the University of Minnesota, Morris

Planning Committee

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The Optimal Enrollment Target for the University of Minnesota, Morris

Analysis and Report
Conducted by
the UMM Planning Committee

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Report Date: May, 2014

Background: Prompted by the Chancellor, and informed by the 2006 UMM Strategic Plan target of 2100 enrollment, the Planning Committee began (fall, 2011) investigating the optimal enrollment number for this campus. On the assumption that our institutional costs are largely not enrollment-sensitive, while our institutional revenues largely are enrollment-sensitive, we devoted our attention from the outset to identifying the physical capacity constraints that would be most difficult to overcome. The plan was to identify these as a cap on enrollment, and then work backwards to determine whether the additional variable costs of enrolling more students could be justified by the additional revenues.

1. An analysis of physical constraints (hardest and slowest to change)

Classroom Space, Classroom Scheduling:

The Office of the Registrar (11/17/11) discussed with the Planning Committee the difficulties associated with classroom scheduling. The problem is by no means trivial, and UMM's current approach relies very heavily on one staffer (Jeri Squier) to channel a tremendous amount of idiosyncratic information about classroom capacities (actual vs. stated), faculty preferences, and other constraints.

Our busiest times remain during the MWF 9-3:30 period. Imholte Hall is 80-91% capacity at those times, for example. It is a continuing battle to persuade disciplines to offer courses at off-peak hours. (This has improved some in the last two years.)

But the challenge is more complicated than simply spreading the load across the day. 1000-

level classes are frequently larger, and compete for a finite number of large-capacity rooms. Labs are not fungible spaces, and they are in many cases already in use across the hours of the day. A seminar room is an altogether different space than a typical 30-student capacity classroom. Additional enrollment is going to put additional pressures on scheduling, which will involve at least a shift in course offering times -- possibly including evenings and weekends -- and may necessitate some programmatic changes (e.g. larger intro sections) to accommodate surging enrollments in certain programs.

Special Space Considerations:

In response to a request for input, sent to faculty and staff (February, 2012), several potential bottlenecks were identified:

- Research space for additional faculty in the sciences
- Research space for additional undergraduate researchers in sciences
- Lab space for general chemistry and organic chemistry
- Capacity constraint in the Theater discipline's costume/makeup shop
- Locker room space for athletes in the P.E. Center (49 UMM student-athletes w/o lockers, winter 2012)
- Capacity and time constraints in the Studio Art discipline's studios
- Pressures on space in HFA 6 (with rather unique projection technology, for this campus)
- Office space for new faculty (identified by more than one division chair)

Residential Life Constraints:

Henry Fulda and TJ Ross visited the Planning Committee on 2/8/12 and again on 3/25/14, to discuss the Residential Life perspective on additional enrollments. In the first meeting, Fulda distributed an occupancy report (see Minutes, 2/8/12) indicating essentially 100% occupancy (822 of 824 available bed spaces), fall 2011. Fulda informed the committee that Blakely had been partially renovated, buying the campus some time (7-9 years; 72 beds).

The GPLLC opened for students in fall, 2013, increasing capacity by 73 beds. The clock is ticking on Blakely.

Fulda argued forcefully for the programmatic importance of on-campus housing, especially in the first year. Currently 92-95% of incoming first-year students live on-campus. In the past 6 years we have kept 42-45% of returning students on-campus. Research indicates that on-campus living correlates with more successful academic and social outcomes for students.

While there has been some talk of GPLLC II, the Twin Cities facilities and finance people are very unlikely to approve another dorm before UMM can document 3-4 years of significant excess demand (students forced to live in lounges, or in the Prairie Inn, for example). Building GPLLC I took 8 years, start to finish.

In the March, 2014 visit, Fulda and Ross informed the committee that total bed spaces now stand at 975, excluding the 50 spaces in Blakely that will disappear 2 years from now. The 975 figure includes "supplemental" spaces, and 4-to-a-suite housing in the on-campus apartments (previously: 3-to-a-suite). 939 bed spaces were claimed at the beginning of fall, 2013.

Our historical on-campus percentage is 46% of total enrollment, so if we expand to 2100 students that would imply 966 bed spaces. It's possible, but far from ideal. Residential Life likes to have some extra spaces to accommodate roommate incompatibility, for example. Res Life also feels that the apartments work much better with 3 rather than 4 per suite. Meanwhile, off-campus housing in the Prairie Inn is no longer an option (due to mold issues).

Housing off-campus is very tight as well. Res Life sits on the Morris Rental Commission. Despite a very modest standard for licensure, many of the off-campus units still fall short.

There is talk of an apartment complex on the old elementary school property. UMM may contract long-term for a suite of rooms in such a complex, or rent an entire complex. Such an approach could significantly reduce the lead time necessary to offer new “on-campus” residential spaces -- perhaps to as little as 12-18 months.

2. An analysis of variable costs in Academic Affairs

VCAA and Dean Finzel visited the Planning Committee 4/1/14, to discuss the optimal enrollment target. He was optimistic that the extra enrollment would generate resources that were positive overall for the academic program. His figures: 150 new students @ \$6000 (net; after merit scholarships and tuition waivers) yields \$900,000; extra enrollment requires 9 new faculty, @ \$75,000 (Finzel’s estimate) = \$675,000. \$225K remains in free resources to bolster areas in which we are particularly thin, for example: Academic Assistance. [Editorial comment: $150/9 = 16.67$ student:faculty ratio.]

3. An analysis of feasibility from Admissions

Director of Admissions Bryan Herrmann visited the Planning Committee on 2/22/12, and again on 3/18/14, to discuss enrollment trends and projections. In both appearances, Herrmann presented a macro picture that is quite challenging for UMM enrollments. Demographic projections predict a 5.7% decline in high school graduates in the midwest, through 2027. MN had 63,000 high school graduates two years ago, but won’t grow back into that number again until 2021. By 2021, the proportion of students-of-color will have increased 67%. The fastest growing segment of UMM enrollment is students from families with less than \$25K annual income. We have fierce competition from other colleges in the region.

Herrmann emphasizes the need for retention. We currently spend \$2500 per matriculant in recruiting costs. Herrmann showed us some spreadsheet simulations of how overall enrollments improve if the retention rates move up. He did not address where additional recruits might come from, or what the costs of attracting them to campus might be. In subsequent correspondence with the Planning Committee chair, Herrmann writes:

As for drumming up 50 new students [annually] and the resources required, [it] is a challenging question. Yes it would require an additional admissions counselor but depending on where these students are from it would certainly have varied other costs. We would need to invest resources in direct mail communication, along with travel and brand building activities in the region or particularly within the targeted location. It is hard to answer the question with one number because it depends a great deal on our strategy and approach to the growth in student numbers. Some of the growth would need to come from Minnesota and Wisconsin but farther afield regions would be more challenging and costly as we try to develop a market there. It would require much more analysis of who, what, where and how to determine the exact investments that would be required to grow enrollment in targeted locations.

4. Planning Committee Analysis

The Planning Committee is interested in Admissions Director Herrmann’s ideas regarding

retention. In correspondence with the Committee chair, Herrmann writes:

Yes the real opportunity lies in retention. It is much cheaper to retain a student than it is to recruit a new one, often this is on the scale of 3 to 5 times as costly to recruit new than to retain. Higher ed is like many other industries, retaining a customer is much better for the bottom line.

The Planning Committee has not been able independently to determine the relative costs and benefits, however. It's not clear that we know the costs associated with either additional recruitment or additional retention, let alone the ratio of one to the other. What size financial investment in retention efforts would yield what size reward in terms of retained students? What size financial investment in recruitment efforts would yield what size reward in terms of newly recruited students? While we take a stab at estimating the latter (below), the former may be a question that a future Planning Committee wishes to pursue.

At any rate, we cannot get to 2100 students, even with 100% retention, unless we increase the size of the recruitment class. Instead, in what follows, The Planning Committee attempts to model the costs and revenues associated with increased enrollment, assuming that the entire change is targeted to newly-admitted high school students (NAHS). Specifically, the Planning Committee has reworked some of the thought experiment run for us initially by VCAA Finzel:

- After consultation with Finance Committee chair Michael Korth, we believe the correct “marginal revenue” figure is \$6,500 per student, rather than the \$6,000 used by Finzel.
- We believe Finzel’s \$75K/new faculty figure is too low. It may be appropriate for entry level faculty, but over time the cost will rise, with seniority (and possible promotion and tenure). We model \$80K instead.
- The Planning Committee targets a 15:1 student:faculty ratio, as per the 2014 review of the 2006 strategic plan.
- Using Herrmann’s retention model, at current retention rates we must recruit an extra 46 students annually (NAHS) to reach a steady-state of 150 additional enrollees.
- We believe that a conservative estimate of the cost-of-recruitment would involve:
 - i) retaining the current 60:1 NAHS:admissions counsellor ratio (admissions counsellors @ \$50K expense)
 - ii) an additional \$250 per NAHS in travel and promotional costs for the admissions office

With these assumptions, the net tuition revenues per NAHS come to just \$417. For an increase of 150 enrollees, this amounts to \$62K. The number is small enough that it could easily be overrun by other costs of meeting the needs of the additional 150 students: counseling resources; academic assistance resources; disability services resources; advising resources; financial aid resources; etc.

Since there are $(975-939) = 36$ possible additional spaces in the residence halls, there appears to be a revenue enhancement to auxiliaries (residence halls and food service), amounting in the most optimistic scenario to approximately \$270,000. Up to 5% of this, some \$13,500, may be returned to academic and administrative budgets, through the enterprise tax. Some modest increases in enterprise taxes collected from parking and the bookstore might also be anticipated. Essentially, however, increased enrollments must lead to more off-campus demand for housing, at least for the next several years, unless UMM enters into some sort of non-traditional long-term lease agreement with a private developer (discussed above).

An increase in student fee revenue would be the most notable impact, and this (approximately

\$900 per student) would have a positive impact on campus affairs.

Upon sober reflection, the Planning Committee believes that increased enrollments cannot and will not produce significant net revenues without either: i) an increase in the net revenue per student; or ii) decrease in expenditure per student. It is difficult to see where the latter savings might be realized, other than via an increase in the student:faculty ratio, which is not acceptable to the Planning Committee.

An increase in the revenue per student appears to us to be a necessary pre-condition for any attempt at increased enrollments. This can happen in one of three ways:

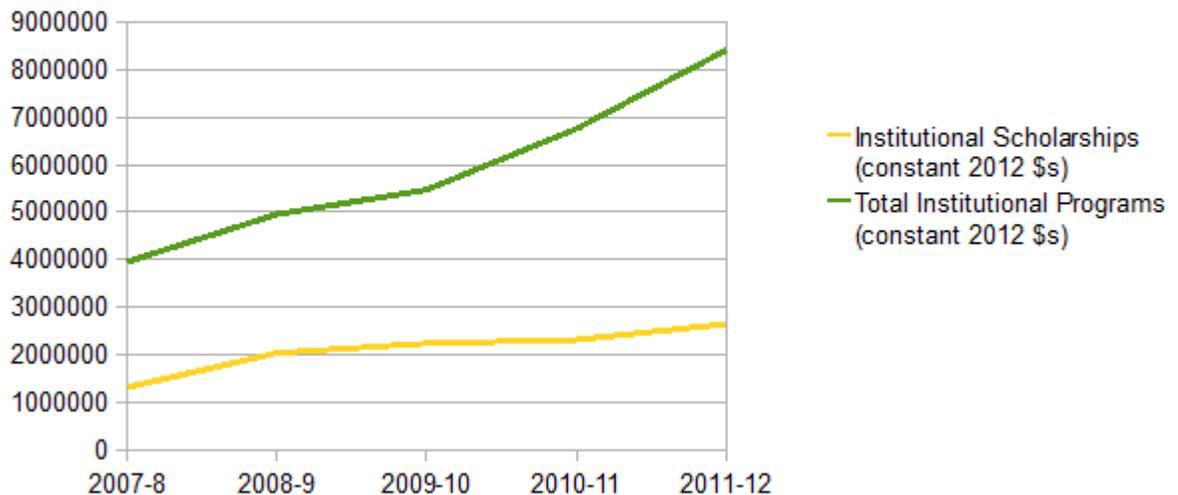
1. Achieve better cost-recovery on the Native American tuition waiver
2. Offer less merit aid to incoming students
3. Change the composition of the student body, to include relatively higher proportions of high-tuition paying students

It's not clear to this committee that UMM has any control over option 1. Option 3 is fraught with difficulties, political and otherwise. Option 2 appears to be at least worthy of consideration.

Below we graph the inflation-adjusted trajectory of student scholarships since 2007-8, and of average annual real debt assumed since 2001-2:

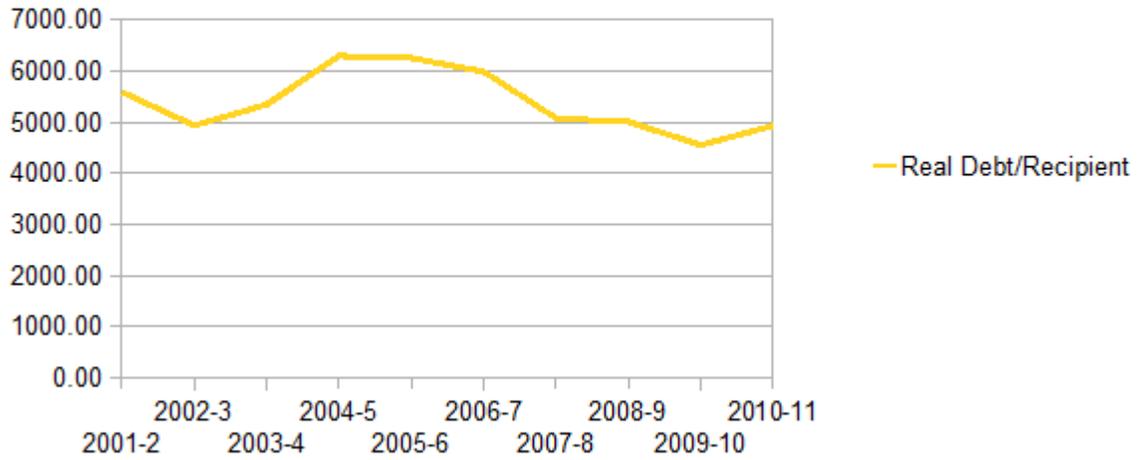
Real Institutional Aid to Students

Source: UMM Databook



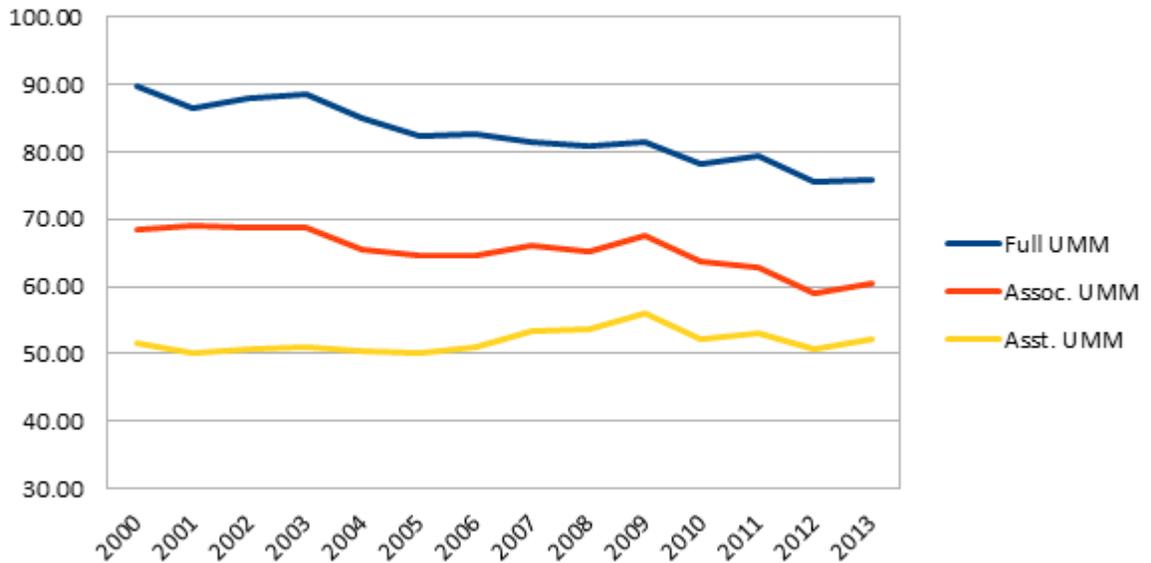
Average Student Debt Assumed (2012 constant \$s)

Source: UMM Databook



By way of interesting contrast, we graph real (inflation-adjusted) faculty salaries, according to rank, 2000-2001 through 2012-13 (based on AAUP data).

Average UMM Salaries By Rank, 2000-2013 (Inflation-adjusted 2012 \$s)



5. Conclusion:

Our analysis of the optimal enrollment target number took a turn that we were not expecting. It appears that in net revenue terms, adding additional enrollment is very close to neutral, and possibly negative.

To improve matters and to make increased enrollments part of the solution instead of part of the problem, we can either lower expenditures per student or raise revenues per student. The Planning Committee is not persuaded that there's much to be done in terms of cost-cutting that would not harm our programs and our mission. The recently-concluded RAR process did not identify low-hanging fruit in that regard. That leaves the three possible strategies for changing our tuition structure. Unfortunately two of those are fraught with difficulties. That leaves us with only the option of raising net tuition, most likely by trimming our merit aid packages.

The graphs above show that this campus has made a remarkable investment in student aid over the past several years. The data show average student costs constant over time, in real, inflation-adjusted terms, despite increasing nominal tuition. The investment UMM has made in this respect is a good one, without a doubt, but it comes at an expense to other things we care about.

Student aid, payroll, and facilities compete for the same pool of resources. There has been a fairly dramatic reallocation of resources towards student aid in recent years. The Planning Committee notes this trend with genuine interest.

Our reasoning on per-student net revenues has short-circuited the question we began with. Without a change in net tuition revenue per student, it makes no *economic* sense to increase enrollments. Most of the Committee felt that enrollments in the range of 1950-2000 are probably feasible, and in some ways desirable, but unless the per-student net revenue problem is solved, the additional enrollment likely constitutes a drain on resources and/or requires a dilution of quality.

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