December Board Report

November 18, 2014

Submitted by Justin P. McBrayer

My October board report established two claims: we are losing teachers, especially tenure-track teachers, and this loss of teachers is bad for the college. That report generated a lot of discussion on campus. In this report, I will follow-up on two questions that I received from many faculty and two questions from members of the board. The questions from faculty are as follows:

1. What has happened to our levels of staffing, especially the higher-paid administrative positions, over the time that our number of teachers was shrinking?

2. Which areas of the college have lost the most tenure/tenure-track teachers?

The questions from members of the board are as follows:

3. How does losing majors affect the demand for classes?

4. What can we do to maximize our retention of the few junior, tenure-track people that we are hiring?

This report will provide preliminary answers to each question.

1. What has happened to our levels of staffing, especially the higher-paid administrative positions, over the time that our number of teachers was shrinking?

Answering this question is tricky for several reasons. First, since many staff are not hired directly by the college but are outsourced (e.g. food-service by Sodexo and bookstore by Follet), they don’t show up in our staffing reports. Second, it’s not clear what counts as a “higher-paid administrative position.” For purposes of getting a snapshot, I looked at staff with salaries over $75,000 a year. Third, it’s not obvious how long of a timeframe should be examined. I opted to look at the years from 08-09 to 14-15. I looked at this time frame for two reasons: (a) it provides a chance to see how things changed over the recession by comparing a pre-recession budget with the current year’s budget and (b) it mostly overlaps with the current administration.
As Figure 1 makes clear, from the pre-recession year of 08-09 to the current fiscal year, total personnel has grown by a modest 1.8% or 10.43 FTE (again, not including food-service, etc.). However, teacher ranks have shrunk over that time by almost 7% (and this includes ALL teachers, including adjuncts; T/TT teachers have shrunk much more). Very little of the overall growth went to moderately-compensated staff like administrative assistants, student life personnel, etc. In relative terms, much of the growth in positions has gone to highly-compensated staff occupying administrative or managerial roles. While the recession was hard on teachers and other staff, it appears to have been good for the administration. This is a concern among many faculty. Given that we have the same number of students and even fewer teachers, why is it that we need 36% more managers than we needed in 2008?

2. Which areas of the college have lost the most teachers?

Answering this question is also tricky for several reasons. First, it’s again not obvious how long of a timeframe should be examined. To be consistent with the change in overall personnel measured above, I opted to look at the years from 08-09 to 14-15. This provides a chance to see how things changed over the recession and under the current administration. Second, scholars disagree about how to divide academic units up into the humanities, sciences, etc. I opted for a categorization that roughly matches our staffing pattern.

As seen in Figure 2, over the past six years, the humanities have lost about 1 in 5 tenured/tenure-track teachers. The biggest losses in this category are history and English. The social sciences and SOBA are relatively flat. Teacher education is down 14% (although this represents only a single position). The natural sciences have increased tenured/tenure-track teachers by over 25%. The biggest gains in this category are in biology and physics/engineering.
3. How does losing majors affect the demand for classes?

Mr. Wassam and Dr. Gulliford had a lively exchange at the last board meeting about the correlation between numbers of majors and overall demand for courses. It raised a concern that has been voiced by many faculty members and departments with whom I have spoken. The basic question is one about our methodology for allocating scarce teaching resources and faculty lines across campus. I will try to shed some light on that debate here.

Students take classes to fill a variety of different requirements including the following:
- **Major**- courses counting towards the major
- **Minor**- courses counting towards the minor
- **Auxiliary**- courses counting toward a major or minor in a different field
- **Liberal Arts Core**- courses counting towards general education
- **Elective**- other courses counting toward the 120 credits needed for graduation

Answering the question “How does a loss of majors affect overall departmental demand?” depends on why students are taking courses from the department in question. If students mostly take courses from a department to satisfy major or minor requirements, then a loss of majors in that field will dramatically affect the overall demand for those courses. However, if students mostly take courses from a department to satisfy non-major requirements, then a loss to majors in that field will not have a dramatic effect on the overall demand for courses in that field.

As a small, liberal-arts college with professional programs, we have departments that fit both of these patterns. For example, if we take a look at courses being offered this fall and sort the students in those courses by their declared first major, we can see how many students are taking a course in their major compared with how many students are taking a course because it fills some other degree requirement. This is illustrated in Figure 3 using a sample of departments across campus (blue=NBS, yellow=SOBA, red=A&H, green=SS, and grey=TE).

![Figure 3: Percentage of Seats Occupied by Students with a First Major in Sampled Departments, Fall 2014](chart)
Figure 3 highlights two different points. First, departments serve students in radically different ways. Only 6% of seats in math were occupied by math majors this fall whereas 87% of seats in exercise science were occupied by exercise science majors. Departments on the left of the graph serve students by delivering largely non-major courses whereas those on the right have demand that is largely major-driven. For instance, math serves general education students plus students needing auxiliaries from a wide range of science majors. Economics has only a few majors but serves general education students plus students who need an economics background for a business administration major. Chemistry is delivering a large number of courses to biology majors, physics is providing auxiliaries to engineering, etc.

Second, this diversity of course deliveries varies wildly across schools. Note that in the top five departments on the right-hand, major-heavy side of the chart there is a department from each of the five major divisions on campus. And at the left-hand, major-weak side of the chart includes departments from three of the major divisions: NBS, A&H, and SOBA.

How does all of this affect the question of majors and the distribution of faculty resources with which we began? To pick on my own department, if philosophy majors were reduced by half, this would affect overall demand by only 10% (and that follows only if we make the questionable assumption that the department is offering sufficient numbers of seats to begin with). So a reduction in majors for philosophy, like the other departments on the left-hand side of the graph, does not correlate with a steep drop in overall course demand. This is not true for departments on the right-hand, major-heavy side of the graph.

In all, when we make decisions about the allocation of faculty resources, we need a more sophisticated way of measuring the demand for academic units. The familiar “majors are down, so we need fewer tenure-track teachers” refrain is hasty at best and mistaken at worst. Furthermore, some of the departments represented on the left-hand side of the graph have not seen a decline in majors in recent years despite seeing a reduction in their T/TT teaching staff. For example, majors in philosophy have grown over 50% from 25 in 08-09 to 38 in 14-15.

A solution to this problem would likely involve a better system of shared governance when it comes to the allocation of faculty resources. Currently, decisions about teacher staffing are made solely by the provost and deans council. Ideally these decisions would be made by a group consisting of both informed faculty from across campus as well as representatives from the administration.

4. What can we do to maximize our retention of the few junior, tenure-track people that we are hiring?

In the last board meeting, Chairman Wells expressed his dismay about our inability to attract and retain tenure-track teachers. This is a concern shared by faculty as evident in the 2009 report on Hiring and Retaining Quality Faculty. While there are certainly many factors impacting our ability to attract and retain tenure-track teachers, I think Mr. Wells was right to point out that the cost of real estate in Durango is one of the top factors. In a very unscientific email survey of our thirty-some tenure-track faculty, the high cost of housing in Durango was universally fingered as a top factor that hindered our recruitment and retention of junior faculty (along with relatively high teaching load and relatively low resources for scholarship).
How can we mitigate the impact of the high cost of housing for our incoming teachers? Different universities have tackled the problem in different ways. There are two main strategies. The first is to build in a cost of living adjustment to every faculty salary. So, for instance, if the cost of living is 15% higher than average, then faculty salaries would reflect this difference. The second is to fund a housing assistance program that would provide either a no-interest or a low-interest loan for the purposes of purchasing real estate.

My unscientific survey suggests that junior faculty strongly prefer to solve the problem with the housing assistance program. (The few who indicated a preference for an ongoing salary adjustment either had higher salaries than average junior faculty or had already purchased a home or both.) I agree with the conclusion that a housing assistance program would give the college the most “bang for its buck.”

I encourage the board, the administration and the faculty to investigate the possibility of forgivable, interest-free loans for incoming tenure-track teachers. The basic idea is that we could provide a lump sum to incoming teachers that would be made available at the closing of a real estate transaction. This money would be provided interest-free and gradually forgiven over time. For example, we could offer each incoming tenure-track teacher an interest-free loan of $50K to be used toward a real-estate purchase in Durango; half of the loan would be forgiven when the teacher is promoted from assistant to associate professor and the remaining loan would be forgiven when the teacher is promoted from associate to full professor. This sort of program would be cheaper overall for the college, direct the resources where they are most needed, and actually enable junior faculty to purchase homes in Durango.

Obviously the administration and faculty (and perhaps foundation) would need to work through the details to make the program as effective as possible. Perhaps we would need a different amount or different terms for forgiveness, etc. Or the loan could be interest-free on the condition that the college benefit from a share of the property appreciation. But many colleges have adopted similar programs to keep their core teaching experts on campus. As a singular example, CU-Boulder has partnered with its foundation and a local credit union to offer a Faculty Housing Assistance Program that provides a loan for up to 25% of the value of a home up to a maximum of $80,000 (http://www.cu.edu/treasurer/faculty-housing-assistance-program-0). I encourage the board to work with the foundation and the administration to investigate similar options for our tenure-track teachers.

---

i This data is collected from the staffing reports generated by the budget office. Total personnel is calculated at the bottom of each staffing report; from 08-09 to 14-15 the total number changed from 575.64 to 586.07. The number of staff over $75,000 was hand-counted from staffing reports; from 08-09 to 14-15 the total number changed from 25 to 34. The total teacher number is not accurately captured by the staffing pattern, so the number for total teachers relies on a calculation from OIRPA; from 08-09 to 13-14 the number changed from 194.5 to 181.3. The total for 14-15 is not tabulated until the end of the academic year, but it is estimated at close to the 13-14 total, so that number is used here. The number of staff under $75,000 is calculated by taking the total personnel and backing out total teachers and staff over $75,000; from 08-09 to 14-15 the total number changed from 356.14 to 370.77.

ii Student FYE for 08-09 is 3,531; student FYE for 14-15 will not be calculated until year end. However, we know that fall enrollment for 14-15 is 3,814 and since the average difference between fall enrollment and FYE for the last three years has been -7%, it is reasonable to conclude that the FYE for 14-15 will be about 3,547. In effect, we have just about the same number of students in 14-15 as we had in 08-09.

iii Humanities includes Southwest Studies, NAIS, Art & Design, English, Theatre, Modern Language, Philosophy, Political Science, Music, and History. Social Science includes Anthropology, Sociology, Exercise Science, and Psychology. Natural Science includes Biology, Agriculture, ENVS, Physics & Engineering, Chemistry, and
Geosciences. The graph does NOT include teachers in the two freshman-oriented programs (Writing and Freshman Math) nor does it include Math or Adventure Education. These departments are just difficult to characterize. However, Math has the same number of T/TT teachers in both 08-09 and 14-15 (6 each year) and Adventure Education grew from 2 T/TT teachers (with one non-TT teacher) in 08-09 to 3 T/TT teachers in 14-15.

This data is collected from the current_courses spreadsheet. It provides a useful snapshot, though it is limited in certain ways. For example, it does not capture either second majors or minors.

I sent an unofficial email survey to all and only tenure-track teachers on campus (34 total). Eight who did not currently own homes responded and seven of those preferred the housing assistance program to an ongoing salary adjustment. Six who currently own homes responded and three of those preferred the housing assistance program to an ongoing salary adjustment.

Why prefer the loan program to an ongoing salary adjustment? I can think of three reasons. First, it would be very expensive to maintain an ongoing salary bump. In 13-14, Academic Affairs had a budget of $12.9M, most of that being paid out in faculty salaries. A 15% bump would have cost the college about $2M that year alone. Second, the extra financial help would be distributed across faculty in a way that doesn't focus the help on those who need a house. Many faculty (like me) who would receive the bump already own real estate in Durango. Third, a 15% bump is too little to help incoming teachers afford a house. Suppose an assistant professor makes a salary of $60K a year (this is far more than many assistant professors earn). A 15% bump would be an extra $6k a year after taxes and benefits. At that rate, it would take twelve years of saving this extra bump to finally have the $60K needed to put down 20% on the median priced home in Durango (currently $360K).