**The Math Doesn’t Work**

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I recently finished up a stint on a departmental committee that, in accordance with state law, annually evaluates the teaching of the instructors in my department. While required by bureaucracy, the work is not meaningless, and actually provides instructors with valuable feedback on their classroom practices, course and assignment design, and execution of the curriculum. In addition to classroom observations and reviewing course materials, committee members write reports that account for the quantifiable aspects of an instructor’s teaching -- the number of classes taught, the number of separate course preps, and the total number of students under instruction -- as well as accounting for qualitative factors, such as the instructor’s ongoing professionalization, disciplinary expertise, classroom practices, rapport with students, student evaluations, course and assignment design, and grading practices.  
  
In the course of writing the five reports that I was responsible for this semester, I began thinking about how faculty time is spent, because I was having to pay close attention to the practices of fellow instructors, and because it took dozens of hours to conduct the classroom observations, review the materials, and subsequently compose the reports I was responsible for writing.  
  
I began some back-of-the-envelope calculations on how faculty time is spent, using an average week of my own as a metric. The results were, frankly, discouraging, but not surprising. Let’s walk through the math.  
  
For the purposes of these calculations I assumed a 60-hour work week. While we tend think of white-collar work in terms of the unit of the 40-hour work week, I don’t know of a single full-time faculty member at any institution, neither in the tenured/tenure-track ranks nor in the adjunct ranks, who works as little as 40 hours a week. I suspect that in many professional occupations the 40-hour work week has also become a thing of the past, the ideal of a bygone economic era. But in order to avoid sounding hyperbolic, for the calculations below I’ll use a 60-hour work week, even though I know that I sometimes, and other faculty members frequently, put in even more time on a weekly basis. Notice too that I’m not talking about spending 60 hours per week in one’s office, but refer instead to the sum total amount of time committed to fulfilling one’s job duties, whether in the office or grading and answering correspondence from home.  
  
So, I estimate that on average I spend 60 hours a week doing my job. My employing institution, a public regional-comprehensive university, is quite explicit with tenure-track faculty members such as myself about how we should divide our time. One-third is to be devoted to teaching, one-third to scholarly endeavors, and one-third to various service activities, service to the department, college, university and discipline. That’s a nice, tidy accounting, but it doesn’t play out so neatly in day-to-day life. It does indicate though the balance that tenure committees expect to see in the dossiers of applicants for tenure.  
  
The simple reality is that there is no way, on a weekly basis, to hold to those guidelines because, even assuming a 60-hour work week, there is no way to constrain (ethically or otherwise) the time one must devote to teaching to 20 hours per week. As a result, teaching commitments are disproportionately larger than the one-third figure, and the time for scholarly and service endeavors has to be made up somewhere in order to produce the volume of scholarship and engage in the service that the university expects. I suspect that my university is somewhat typical in terms of how the ideal accounting it sets forth isn’t necessarily practical. For example, I know that my colleagues at so-called Research I universities devote more time to teaching and service than their guidelines call for, which cuts into research time. If anything, university bureaucracies routinely underestimate the amount of time that the typical faculty member simply must devote to teaching and service.  
  
So, let’s do a little low-level math: again, I’m going to start with a typical work week of 60 hours.  
  
Subtract 10 hours per week for time devoted to research. When I say research, I don’t mean writing, but everything that goes into research, looking up sources, reading, taking notes, and hopefully some actual writing. That’s about the most I can devote to research in a typical work week. And frankly I’m lucky to find 10 hours a week for research activities, but let’s use 10 hours as a pretty accurate estimate. So now we’re down to 50 hours.  
  
Subtract 10 hours per week for time devoted to service. This includes various routine faculty meetings, fulfillment of university/state bureaucratic obligations, and committee work for the department, college, and university-level committees I serve on. Those are all typical, week-in, week-out activities, but some weeks I may be asked to review a manuscript for a journal or to do editorial work for another journal, or perhaps work with one of the university clubs I sponsor, which blows the 10-hour number out of the water. At other times, committee work may ramp up depending on where we are in the academic calendar, or in response to external events, such as impending budget cuts that require my department to generate various defenses of our curriculum and staffing. Serving on a search committee also requires a tremendous amount of time, which can easily add up to 10 hours a week on its own. Note also that with *any* administrative responsibility this number increases, often dramatically. But, again, I’ll be conservative and estimate my average weekly service commitment at about 10 hours.  
  
So, 40 hours of my 60-hour work week remain. These 40 hours are devoted to teaching, but we can break teaching down further into more specific activities.  
  
Subtract 9 hour per week for time in class, spent actually in the classroom with students. I teach a 3/3 load -- three courses each fall and spring -- which is typical for tenured and tenure-track faculty at my institution, thus the 9 hours of classroom contact. That’s pretty straight-forward. Thirty-one hours remain.  
  
Subtract 3 hours per week for required, regularly scheduled office hours, but add back 1.5 for office hours that go unattended, which allows me to accomplish other work with the time. But then, subtract another hour for meetings during the week with students who can’t make my regularly scheduled office hours. At this point, 28.5 hours remain in my work week.  
  
Subtract 9 hours for weekly course prep. This is probably one of the more volatile numbers in these calculations. This semester I’m teaching three entirely separate courses, which means three preps. I doubt I actually am able to hold those preps to 9 hours. However, if you’ve taught a course many times and don’t change much, this number may be reduced for you, and it would also fluctuate if you teach only two or as many as four courses per semester. Teaching graduate courses, as I usually do, might require more or less prep than the typical undergraduate course. Nineteen and one-half hours remain.  
  
I’ll divide those 19.5 hours by the number of students I have this semester, which is 73. This is the time that remains for grading student work each week. That works out to 16.03 minutes per week per student, to be used for all grading, correspondence, or related help outside of class and office hours. But grading isn’t really evenly distributed throughout the semester. And never mind the difficulty of holding to the efficiency required to parse one’s grading time so precisely. These grading calculations also do not include small-stakes assignments, final portfolio reviews, or final exams.  
  
In my mathematical conservatism, I haven’t even included obligations such as advising master’s students who are writing theses, nor advising undergraduate majors -- a duty for which faculty are responsible for at my institution and many others -- nor undertaking program assessment, which is a recurring responsibility of most departments and programs. Periodically, these and whatever additional responsibilities are required at your own institution will demand even more time. The hours where work is devoted may shift based on the type of institution you work at, but I suspect the final tally is similar in many cases.  
  
There are several consequences to this increasingly nonviable math, which becomes even more nonviable as universities endure budget cuts that inevitably increase class sizes. First, the math explains why, despite working on a nine month appointment, faculty members should expect to use their summers "off" to conduct the research that was likely shafted during the academic year. The time must be made up somewhere. Second, instructional quality obviously suffers from these class size and time pressures as instructors have less time to prepare courses, less time to respond to student work, and less time for individual instruction. Third, instructors’ quality of life obviously suffers. Where is the time for family and for rest and for recreation?  
  
I point all of this not because there is anything exceptional about my situation, but precisely the opposite. I suspect that the time crunch I experience on a weekly basis is typical of many faculty members in many disciplines at many institutions. For faculty teaching 4/4 loads, or, as many community college faculty do, 5/5 loads, the numbers presented here skyrocket into even more unreasonable territories.  
  
While movies may still depict professors as be-tweeded and bespectacled, taking leave of their mahogany-trimmed offices for a long lunch in a similarly lushly appointed faculty club, this isn’t the reality for most people at most institutions, not even at the institutions where you actually can find a little dark wood in the buildings. It’s a myth.  
  
The math created by the increasing financial pressures placed upon our institutions of higher learning simply doesn’t add up, not for faculty and certainly not for students. Faculty suffer in terms of their workload and quality of life, while students suffer in terms of the degrading quality of education they receive.

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