

Where is My Business Adviser? The Challenge of Advising Business Students in a Liberal Arts Setting

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This paper focuses on the effect of staffing decisions on faculty adviser ability to allocate time. In particular it explores how a college's effort to equitably staff the classroom affects advisement within its professional schools when there is a general education requirement. It assumes that each school within the college hires faculty based upon the same student to faculty ratio, in an attempt to keep the quality of classroom experience consistent. While the analysis presented will be modeled relative to a college with a business school, the argument holds for any professional school within a college that does not teach part of the general education requirement.

INTRODUCTION

School of business faculty are often scolded by college administrators and their liberal arts colleagues concerning their involvement in student advising activities. Often the comment is packaged with an observation that business faculty, present company excluded, are too focused upon off campus activities such as consulting. Thus their casual empirical observations have lead much of the college community to conclude that business faculty choose to under perform their liberal arts colleagues in the area of student advisement.

Through the development and application of a staffing decision model, this paper supports the conclusion that business students do not receive the same level of advising services as their liberal arts peers. However, it also clearly demonstrates that the business faculty does more than their fair share of student advising. Rather than being caused by disinterested, preoccupied business faculty, this "advising gap" results from the institution's efforts to facilitate quality teaching by maintaining similar college wide student to teacher ratios. If the college has a general education requirement, this emphasis on hiring to meet student enrollment demand contributes to the development of a serious disequilibrium in the quality and quantity of business advising.

THE MODEL

To understand availability of faculty advisers, we need to model the staffing practices of the college. The basic model assumes that the college has two schools, business and liberal arts, and that business students take X percent their credits inside the business school, and liberal arts students take Z percent of their credits in the business school. Therefore the number of credit hours taught by liberal arts faculty to students on campus can be expressed as:

$$A - (A * Z) + ((1 - X) * B) \quad \text{equation 1.1}$$

and the number of credit hours taught by business school faculty to students on campus can be expressed as:

$$(X * B) + (A * Z) \quad \text{equation 1.2}$$

where:

A = the total number credit hours liberal arts students take

B = the total number of credit hours business students take

X = the percent of their total credits that business students take inside their school

$1-X$ = the percent of their total credits that business students take from liberal arts faculty

Z = the percent of their total credits that liberal arts students take from business faculty

If we assume that the college is interested in maintaining equal quality across schools, and that in part, hiring to maintain the same ratio of student credit hours to faculty in each of its schools facilitates this, then it will hold that:

$$\frac{A - (A * Z) + ((1 - X) * B)}{F_a} = \frac{(X * B) + (A * Z)}{F_b} \quad \text{equation 2.1}$$

where:

F_a = the number of liberal arts faculty

and

F_b = the number of business faculty

Each side of equation 2.1 represents the total number of credit hours taught within that school, divided by the number of school faculty. This may be thought of as the academic intensity present within the classroom. If the college wishes to provide equal opportunities for student/teacher interaction within the classroom, then staffing (F_a and F_b) must be adjusted so each school's academic intensity is equal. Such equal staffing is a prerequisite for offering students the same opportunity for educational achievement, since there is "systemic evidence of a relationship between class size and achievement." (Mateo 1996, Krueger, 2003)

Solving equation 2.1 for the ratios of arts to business faculty yields

$$\frac{F_a}{F_b} = \frac{A - (A * Z) + ((1 - X) * B)}{(X * B) + (A * Z)} \quad \text{equation 2.2}$$

Equation 2.2 can be modified to allow for variation in the relative sizes of the two school's student populations. If we assume that students in both schools require the same number of credits to graduate, and take the same number of credits each semester then B , the total number of credit hours business students take, is equivalent to the percent of the college's students that are business majors ($B\%$). By the same logic, A , the total number of credits liberal arts students take, is equivalent to the percent of the student body enrolled in the school of liberal arts.

Substituting $B\%$ and $A\%$ for B and A respectively in equation 2.2 yields:

$$\frac{F_a}{F_b} = \frac{A\% - (A\% * Z) + ((1 - X) * B\%)}{(X * B\%) + (A\% * Z)} \quad \text{equation 3.1}$$

where:

X = the percent of their total credits that business students take inside their school

Z = the percent of their total credits the average liberal arts student chooses to take from business faculty

$(1-X)$ = the percent of total credit hours business students take from liberal arts faculty (assumed to be the general education requirement).

MODEL APPLICATION

Column 2 of Table I, the equitable ratio of liberal arts to business faculty, was generated using equation 3.1. It assumes that the total size of the student body remains fixed, and business students take 60 % of their credits in the business school and liberal arts students take no business courses. It demonstrates that as the percent of students majoring in business rises, the equitable liberal arts to business faculty ratio falls (since more students need business courses). At first it falls rather quickly, as small percentage increases in students cause rapid increases in the number of business faculty needed to instruct them. However, it also suggests that appropriate staffing levels for the liberal arts is much more stable, due to the impact of general education requirements.

While column 2 of Table I identifies the ratio of staffing that maintains the desired classroom intensity, the actual number of faculty hired would depend on several parameters. One key parameter is target level of student credit hours per faculty member. For example, if faculty each teach four three credit courses a semester, an average class size of thirty would require that each school of the college hire faculty to maintain a target academic intensity of three hundred and sixty student credit hours per faculty member. If the student credit hours per faculty were to rise above this level, then maintenance of teaching quality/intensity would require more faculty to be hired.

Columns 3 and 4 of Table I, the number of majors per faculty member, can only be calculated with regard to a school's specific demographic characteristics. For this analysis, we assumed a student body (SB) for the college of 3000 students; a target average class size of 30 students (equivalent to 360 student credit hours per faculty member ($SCPF$) for faculty teaching four three credit courses) and student credit hours per semester (SCR) equals 15. Given these, the number of liberal arts majors (AM) and the number of business majors (BM) can be expressed respectively as:

$$AM = SB * A\% \quad \text{equation 4.0a}$$

$$BM = SB * B\% \quad \text{equation 4.0b}$$

For the situation where arts students take no business courses, equation 2.2 suggests that when hiring is conducted to maintain desired academic intensity, the number of faculty in liberal arts (F_a) and business (F_b) can be expressed respectively as:

$$F_a = [(AM * SCR) + (BM * SCR * (1 - X))] / SCPF \quad \text{equation 4.1a}$$

$$F_b = (BM * SCR * X) / SCPF \quad \text{equation 4.1b}$$

where : X = the percent of total credits business students take inside their school.

To obtain the ratio of majors to faculty for each school we divide AM and BM and by equation 4.1a and 4.1b respectively. After simplifying, this yields the final result of equations 4.2.

$$\frac{AM}{F_a} = \frac{AM * SCPF}{((SB - (X * BM)) * SCR)} \quad \text{equation 4.2a}$$

$$\frac{BM}{F_b} = \frac{SCPF}{SCR * X} \quad \text{equation 4.2b}$$

Assuming students are to be advised by the faculty within their own schools, equations 4.2a and 4.2b represents the minimum number of advisees per faculty member in their respective schools. An interesting insight derived from equation 4.2b is that if liberal arts students take no business courses, the ratio of business majors to business faculty depends solely on factors that do not vary as the size of the professional school grows. Therefore plugging in the values

assumed above for each of the parameters yields column 3, which remains constant as the number of business faculty increases.

Meanwhile, column 4, the ratio of liberal arts majors to their respective faculty is not constant. Equation 4.2a indicates that this occurs because the number of liberal arts faculty depends on both the credit hours demanded by arts majors as well as the number of credits hours business majors take in the liberal arts due to the general education requirement. This causes the number of liberal arts students per arts faculty to vary as the business school's relative size changes.

Table I: Staffing And Advisement Intensity For Business And Liberal Arts When A General Education Requirement Is Present¹

% Business Students	Ratio of liberal arts to business faculty for equal academic intensity	Student Advisees per business faculty	Student Advisees per liberal arts faculty
5	32.33 to 1.0	40.00 to 1.0	23.51 to 1.0
10	15.67 to 1.0	40.00 to 1.0	22.98 to 1.0
15	10.11 to 1.0	40.00 to 1.0	22.42 to 1.0
20	7.33 to 1.0	40.00 to 1.0	21.82 to 1.0
25	5.67 to 1.0	40.00 to 1.0	21.18 to 1.0
30	4.56 to 1.0	40.00 to 1.0	20.49 to 1.0
35	3.76 to 1.0	40.00 to 1.0	19.75 to 1.0
40	3.17 to 1.0	40.00 to 1.0	18.95 to 1.0
45	2.70 to 1.0	40.00 to 1.0	18.08 to 1.0
50	2.33 to 1.0	40.00 to 1.0	17.14 to 1.0
55	2.03 to 1.0	40.00 to 1.0	16.12 to 1.0
60	1.78 to 1.0	40.00 to 1.0	15.00 to 1.0
65	1.56 to 1.0	40.00 to 1.0	13.77 to 1.0
70	1.38 to 1.0	40.00 to 1.0	12.41 to 1.0
75	1.22 to 1.0	40.00 to 1.0	10.91 to 1.0
80	1.08 to 1.0	40.00 to 1.0	9.23 to 1.0
85	0.96 to 1.0	40.00 to 1.0	7.35 to 1.0
90	0.85 to 1.0	40.00 to 1.0	5.22 to 1.0
95	0.75 to 1.0	40.00 to 1.0	2.79 to 1.0
100	0.67 to 1.0	40.00 to 1.0	0.00 to 1.0

1. Assumes student body of 3000 students taking 15 credits per semester, a hiring target of 360 student credit hours per faculty per semester and 60% of business student credit hours and 0% of liberal arts student credit hours are taken in the school of business

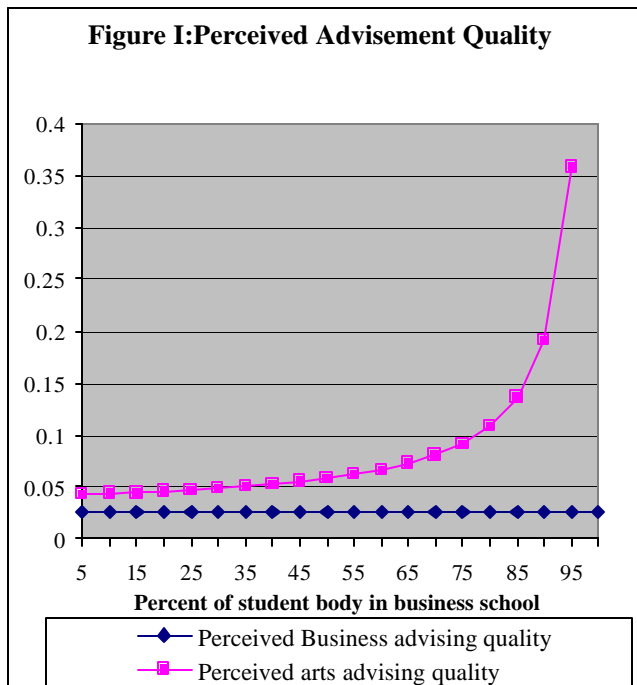
The results presented in column 4 of Table I also suggests that in addition to always having greater access than business student to their advisers, access for arts students will grow if the school of business grows. This occurs since the general education requirements of the college ensure that the number of liberal arts faculty will not decline rapidly even if the number of liberal arts majors declines.

The pervasiveness of the general education requirement's impact can be seen in the bottom of Table I, for the situation where the business school has grown to be 85% or more of the college. At that point, liberal arts majors have access to highly personalized advising, while business majors continue to experience an average adviser intensity of 1 faculty for 40 students. Even if the business school enrolls one hundred percent of the student body, the general education requirement will ensure that the ratio of arts to business faculty does not fall below .67 to 1. Thus comparatively, the school of liberal arts will have adequate staffing to meet the non-classroom demands placed upon its faculty.

INDEX OF ADVISEMENT QUALITY

The relative effect of the general education requirement on advising can be seen through the generation of an advisement intensity index. It has been argued that perceived advisement quality is strongly related to adviser intensity, the degree that an adviser is shared with other students (Byrd 1994, Belcheir 2000, Karrenbrock 2001). Assuming this to be so and holding adviser knowledge constant across schools, yields the following equation:

$$\text{Perceived Advisement Quality} = \frac{\text{Number of Faculty in the School}}{\text{Number of Majors in the School}} \quad \text{equation 5.1}$$



This formulation assumes that faculty members will advise students within their own school. This is often the case, since faculty are generally better versed in the curriculum requirements of their own school and those college requirements faced by their school’s students. Graphs of the resulting indexes, assuming the same demographic characteristics used to generate Table I, are presented in Figure I. They illustrate that for each level of business enrollment, the 40% general education requirement for students results in lower levels of perceived advisement quality for business students. The perceived quality of advisement for liberal arts students, not only increases over much of its range, but it is always superior to that received by business students. For this case, where

forty percent of student credits are embodied within the general education requirement, the perceived quality of advisement received by liberal arts students is at least double that of business students if the business school enrollment grows to 35 % of the college or more. Thus the combination of staffing to ensure similar classroom experiences and the general education requirements results in an unequal availability of faculty advisers.

SUMMARY AND CONCLUSIONS

Through the use of a simple staffing model, this paper demonstrates that in the presence of a general education requirement that is not evenly weighted with business courses, the market based staffing will erode the quality business advising. Liberal arts students will have greater access to their faculty advisers, who will be required to expend considerably less effort to advise their students. While the efforts of individual faculty members in the school of business may offset the lack of adequate advising resources, it is clear that the college, if it is staffing the classroom to provide equal academic intensity will not be allocating resources to advising in an equitable manner.

This is a classic catch 22. It suggests that the traditional advising model, which assigns each faculty member advisees from their school, is inappropriate for business schools. While the variation of requirements between individual schools supports the notion, inherent in the traditional advising model, that students are best advised by faculty within their own schools, the manner in which staffing levels are determined suggests that traditional one-on-one advising is inappropriate in business schools. Short of requiring liberal arts students to take a sizable number of courses in the business school, possible solutions include moving a portion of business

advising into a group format, or hiring professional advisers to offset staffing levels that are inadequate for advisement. While there may be many approaches to solving this problem, each begins with understanding its root cause and the inequity it creates.

REFERENCES

- Belcheir, Marcia J. "An Evaluation of Advising Programs. Research Report," Boise State University, Office of Institutional Assessment. 2000.
- Byrd, Marquita L. "Academic Advising Ain't What it Used to Be: Strangers in the University," Paper presented at the *Annual Meeting of the National Academic Advising Association* (18th, Las Vegas, NV, October 9-12, 1994).
- Gordon, Virginia, "Certification" Task Force Report. Presented to NACADA Board, September 13, 2002
- Karrenbrock & Joyce Associates "Factors Affecting Student Graduation Rates at California State University, Northridge," Consultants Report to the University, June 2001.
- Krueger, Alan B. "Economic Considerations and Class Size," *The Economic Journal*, 113 (February 2003), pp. 34-63.
- Mateo, Miguel and Fernandez, Juan, "Incidence of Class Size On The Evaluation Of University Teaching Quality," *Educational and Psychological Measurement*, Vol. 56 No. 5, October 1996 pp. 771-778.
- Vars G. F., "Designs for General Education: Alternative Approaches to Curricular Integration." *Journal of Higher Education*, Vol 53, 1982 No. 2 pp. 216-226.