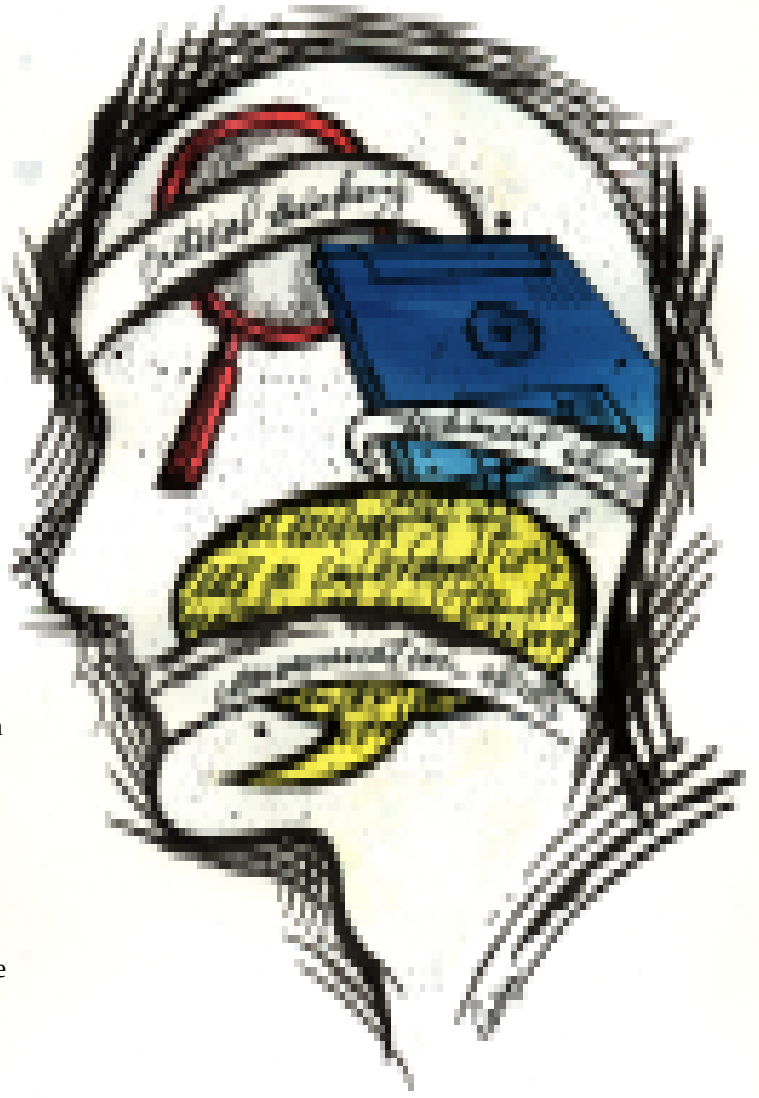

Grading Skills by Discipline: A Comparison of Faculty Instructional Goals

The last issue of *The Landscape* (March/April 1999) examined the question "When does the price of college matter?" The somewhat surprising answer was: "Not often," in terms of the instructional effort faculty expend or their expectations of students. Regardless of the market segment—and, hence, the price—of the nine institutions that participated in a special survey conducted by NCPI scholars Robert Zemsky, William Massy, and Susan Shaman, the faculty interviewed gave remarkably similar answers when queried about a specific course they had recently taught. Their responses varied little in terms of the effort they expected of their students or the amount of time they spent preparing for and delivering the course, grading papers and exams, and meeting with students outside of the classroom.

This issue of *The Landscape* continues that analysis, reporting on a second set of instructional issues reflected in the faculty survey and reported on by Zemsky and Massy. This time, the question being asked is "When does discipline matter?" Specifically, how do the learning goals that faculty set for the courses they teach vary by discipline?

The Faculty Survey, Take Two

The survey involved telephone interviews with faculty at three private research universities, three private liberal arts colleges, and three public institutions—one research university and two comprehensives. In addition to asking faculty members to report their activity for a specific course prior, during, and subsequent to the academic term, the survey also asked them to estimate the importance of three sets of academic goals in that same course: the teaching of computer and technical skills; the teaching of communication skills; and the teaching of basic learning, critical thinking, and conceptual skills.

For each of the three content goals, the individual faculty member was asked about the amount of in-class time students spent pursuing the goal; the amount of out-of-class time students spent pursuing the goal; and how important the mastery of that goal was to students' success in the course. In framing their answers, faculty members were asked to choose a value on a scale of 0 to 5, with 0 indicating "no time" or "not relevant," and 5 indicating "a great deal of time" or "very important."

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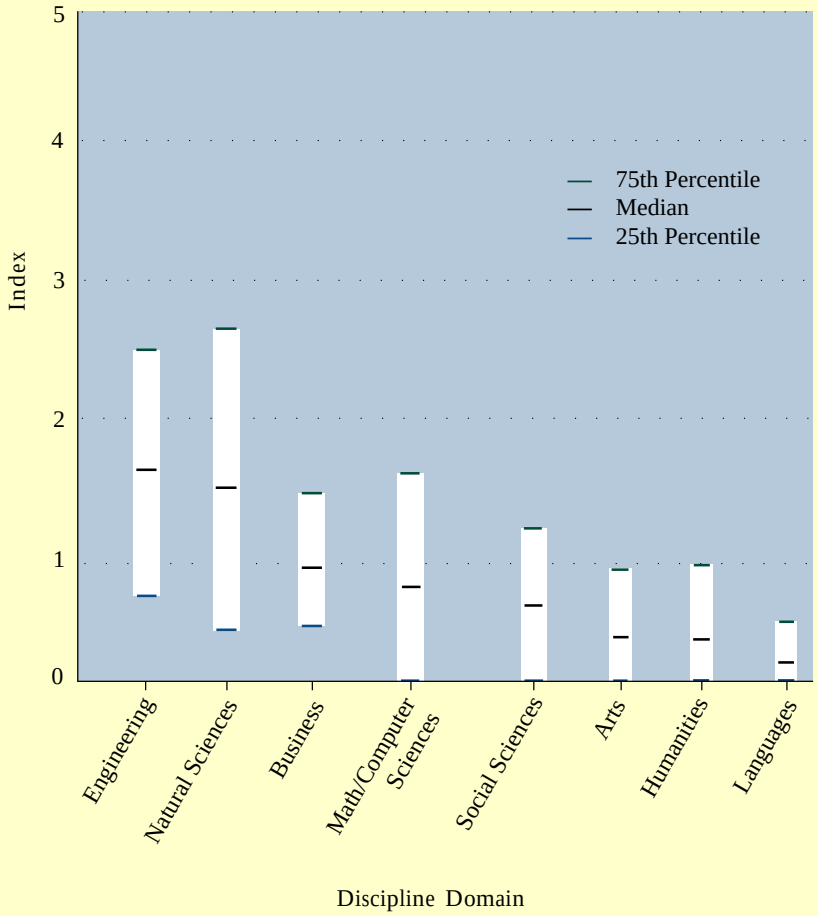
Chart 1
Faculty Ratings of the Importance
of Technical Skills as a Learning Goal, by Discipline



Comparing Content

Responses to the questions on course goals were averaged to form three composite index variables. The variable "Basic Learning, Conceptual Skills, and Critical Thinking" included the following goals: mastery of basic content (for example, facts and theories) and student ability to integrate material, develop mental models, and perform critical thinking. The variable "Communication Skills" included the goals of writing, oral presentation, and teamwork skills. The category "Computer and Technical Skills" included computer-related and science-lab skills.

On the question of course goals, the story reflected in the survey's results—and through a series of simple distributions (Charts 1 through 3), as well as regression models—is a mix of the expected and the intriguing. In general, the models estimating the importance faculty attached to technical/computer and communication skills proved better predictors of faculty responses than those estimating faculty time reported in the last issue of *The Landscape*.

The array of disciplinary specialties that stressed technical and computer skills looks and feels right (Chart 1). Engineering courses lead the way, followed by courses in science, business, mathematics and computer science, and the social sciences.

Fine arts and humanities faculty, on average, reported placing little emphasis on computer or technical skills, while foreign language courses were estimated to attach the least importance to them.

Surprisingly, faculty who teach advanced science courses were estimated to attach less importance to the teaching of technical and computer skills than were faculty of introductory science courses—the most likely explanation being that science faculty assume that their students learn the technical aspects of the subject in introductory courses.

The statistical model predicting the importance that faculty placed on the teaching and learning of communication skills provides almost as good a fit. The disciplines estimated to be the least committed to teaching communication skills are as expected: engineering, followed by science, mathematics and computer science, and the social sciences.

On the other hand, the most unexpected—but nonetheless appropriate—finding lies in which discipline stressed these skills the most: faculty teaching business courses ranked communication skills higher than faculty in any other domain (Chart 2). Why? Perhaps this trend indicates the extent to which the market and vocationalism have impacted higher

education, in particular curricular reform. After all, it was the business community that voiced the loudest complaints about higher education's inability to prepare graduates for the increased skill demands of work in a global economy. As one of the first constituencies to press for educational reform, supporters of the business curriculum have insisted that faculty within this discipline enhance the communication skills of the graduates they send out into the marketplace.

Finally, the humanities present a possibly anomalous case. Faculty teaching a humanities course simply did not report additional emphasis on the teaching of communication skills, despite the common wisdom that humanities courses help teach students how to write.

Even with repeated tries, it was simply not possible to estimate a satisfying model predicting when faculty would and would not report stressing goals related to the mastery of basic information, conceptual skills, and critical thinking—most likely because there was little variance in responses among faculty and across disciplines.

As reflected in Chart 3, commitment to this set of skills was the most widespread of all. More than half of the 400-plus faculty members interviewed rated the items within the basic learning and conceptual and critical-thinking skills set as an average of 4 or 5 on a scale of 0 (not relevant) to 5 (very important). Seventy-five percent of respondents averaged higher than 3.5 on the items that constitute the composite index.

In sharp contrast, only 25 percent of the sample said the items relating to communication skills, on average, rated higher than 2.65; for technical and computer skills, the 75th percentile is even lower (1.65). The obvious conclusion is that commitment to general learning is a characteristic of almost all college courses.

Perspective

The general pattern that emerges from the data, then, is one that details the homogeneity of the undergraduate teaching function—a homogeneity in form and function that stretches across all institutional types and that often minimizes even disciplinary differences. Such a finding will distress those who proclaim the inherent diversity and heterogeneity of American higher education, as well as a quality differential in terms of faculty instructional effort and focus.

Given the remarkable latitude enjoyed by most faculty, what was

Chart 2
Faculty Ratings of the Importance
of Communication Skills as a Learning Goal, by Discipline

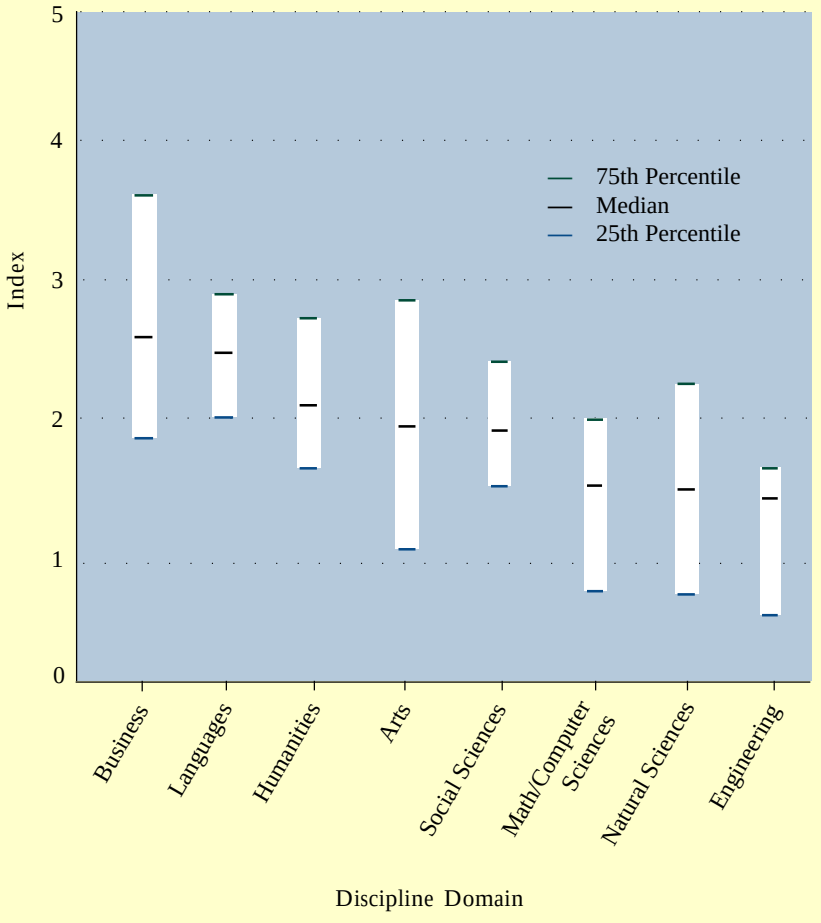
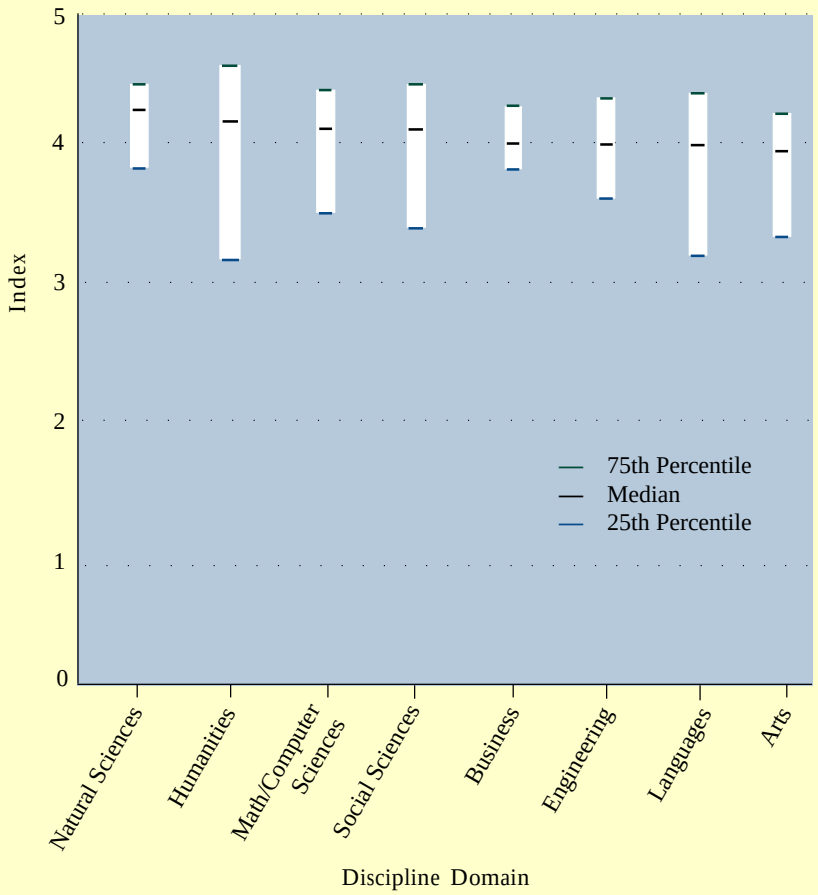


Chart 3
Faculty Ratings of the Importance of Basic Learning, Conceptual Skills, and Critical Thinking as a Learning Goal, by Discipline



genuinely surprising was that it was possible to build models at all—and that, interestingly, the more predictive models involved teaching goals rather than the allotment of faculty time.

In other words, what one faculty member does at one institution is probably mirrored by a corresponding faculty member at a neighboring institution, despite the prices charged by and the status bestowed on different types of colleges and universities. The dominant force appears to be a faculty culture honed in graduate school that makes most members of the professoriate define their obligations and responsibilities in remarkably similar ways.

This relative homogeneity raises serious questions regarding the market in postsecondary education. How do highly selective institutions justify the higher prices they charge, when the central focus of postsecondary effort—teaching students in the classroom—does not seem to provide those students with fundamentally different classroom experiences? Where do the differences lie?

Some may argue that students attending *selective name-brand* research universities do get a "taste of greatness"— a glimpse of, though seldom close contact with, faculty who play dominant roles in their disciplines. Beyond that, what student consumers at these universities get are better-paid faculty, more of them (and hence a broader range of interests), and fellow students whom the admissions process has found to be similarly competitive. □