men. However, this parity was restricted to areas of clinical practice; men still predominated on graduate program faculties. Numbers of faculty were more balanced with regard to gender than ethnic minority representation.

Although there were few ethnic minorities on the faculties of graduate schools and internships, the percentage of students and faculty of color were roughly equivalent. This finding is positive in that perceived and potential mentors of matched graduate schools and internships, the percentage of students and faculty of color were roughly equivalent. This finding is positive in that perceived and potential mentors of matched ethnicity and gender are at least available, if few in number. Mentors are distributed across professional foci, with greater availability of scientist-practitioner models in graduate school and clinician models at internships. Notably, our investigation assessed only the potential availability of diverse mentors rather than the quality of mentorship that they provided. Even if ethnic minority mentors are available, they may be overtaxed due to the low numbers of faculty of color (e.g., Smith & Davidson, 1992). We also do not know whether their positions are as secure as other faculty; for example, what percentage are currently tenured or in tenure-track positions.

However, on a positive note, our findings indicated that women and ethnic minorities showed stronger representation on clinical and counseling psychology academic faculty than on psychology doctoral faculty as a whole, including experimental and social programs. Pate (2001) reported that women comprised only 36% and ethnic minorities only 11% of faculty members of psychology doctoral programs.

Doctoral students' willingness to revisit their educational and career decision and (hypothetically) again pursue a doctorate in psychology was unrelated to their gender, ethnic background, and the ethnic composition of their faculties. Faculty of color appeared to have a sufficient presence that students of color did not believe that their ability to profit from their academic and clinical training had been constrained. This conclusion is qualified by the preliminary nature and negative skew of our educational and career choice measure.

Minority students generally attended graduate and internship programs that had more minority faculty. This matching may be due to minority students' selection of programs with more minority faculty or to the selection of minority students by programs with more faculty of color. Regardless of the mechanism, this relationship implies that increasing ethnic diversity in professional psychology may be facilitated by increasing the minority composition of graduate school faculties, as they are the initial gatekeepers to graduate training and internships.

References

Notes
1. An earlier version of this article was presented at the annual meeting of the American Psychological Association, Washington, DC, August 2000.
2. This research reflects part of the work of the 1999/2000 Graduate and Professional Issues Task Force of the Society for the Teaching of Psychology.
3. We are grateful to Kristie Byers, Susan Hitchcock, Sean Higgins, Amy Wedell, and Natalie Vega for their assistance with data collection and entry.
4. Send correspondence to Steven A. Kvaal, School of Psychology, 430 S. Michigan Avenue, Chicago, IL 60605; e-mail: skvaal@roosevelt.edu.

Graduate Admissions in Psychology: Transcripts and the Effect of Withdrawals
R. Eric Landrum
Boise State University

Graduate admissions directors (N = 139) answered a 10-item Likert-type survey and one open-ended question about the impact of transcripts and withdrawals in the graduate admissions process. Factors of interest were (a) who looks at transcripts, (b) why look at transcripts, and (c) the effect of withdrawals on gaining graduate school admission. At least 2 faculty members generally examine transcripts; transcripts continue to be an important source of information; a low Graduate Record Exam or grade point average may prompt a closer examination of the transcripts; and although 1 or 2 withdrawals may not hurt an applicant's chances for admission, withdrawals from particular courses or certain patterns of withdrawals may have a detrimental effect.

A few semesters ago, a senior enrolled in the department's capstone course told me she was thinking about withdrawing.
from the class. She was also serious about graduate school and asked what effect a "W" on her transcript would have on the likelihood of her graduate school acceptance. After some speculation, I admitted that I did not have a good answer for that question, and I did not know if graduate admissions committees actually looked at the required transcripts. In those cases where transcripts are examined, does a "W" hurt if it occurs only once, more than once, or perhaps in certain courses? Answering these questions was the primary purpose for this study.

The use of transcripts to evaluate graduate school applicants is a common practice, and undergraduate performance has been studied as a predictor of success in graduate applicants (Daehnert & Carter, 1987; Habler, Vodanovich, & Lowe, 1990; Hirschberg & Itkin, 1978; Rem, Oren, & Childrey, 1987). Dunwoody and Frank (1995) found that the two primary reasons students withdraw from classes were personal considerations and course considerations. Daubman, Williams, Johnson, and Crump (1985) found that students withdrawing late in the semester had lower grade point averages (GPAs), had more academic problems, were more often on probation, and had more previous withdrawals compared to other students. Although there has been some work on withdrawals, to my knowledge there is no work addressing the effect of withdrawals on graduate school admission.

Thus, I attempted to answer the following questions: (a) what is the effect of a withdrawal on the graduate admissions process; (b) who, if anyone, looks at the transcripts of graduate school applicants; and (c) what prompts a transcript to receive closer scrutiny than normal?

**Method**

**Participants**

I obtained a listing of all the psychology graduate schools in the United States from the American Psychological Association Research Office. I randomly selected 449 graduate programs in psychology to receive the survey materials. I received 139 useable responses (30.9%), with 68.7% of responses from public schools and 31.3% from private schools. Of these departments, 24.8% award the master's degree, 23.3% the PhD, and 51.9% the master's and the PhD. I did not ask whether programs offered the PsyD.

**Materials**

I developed a 10-item inventory to address the three main questions of this study. Respondents answered these questions using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). I also asked respondents one open-ended question assessing the effect of withdrawals reported on transcripts. I posed these questions as a subset of a larger survey of graduate programs in psychology; only those items relevant to this study are presented here.

**Procedure**

I mailed the survey packet to directors of the graduate programs. The packet contained a cover letter, the one-page survey, and a self-addressed business-reply envelope.
(GRE) score would prompt a closer examination. With a low GPA, 87% take a closer look at the transcript; with a low GRE score, 77% take a closer look. Thus, graduate directors highly value transcript data, and these data are especially important when a student's GPA or GRE scores are low. Here is how one respondent described the process:

Withdrawals do not affect a review of the transcripts unless there is a clear pattern of incompletes with poor grades or avoidance of certain kinds of courses (e.g., math). We examine student's [sic] last 60 hours of attempted coursework. I will review transcripts when grade point average and/or GRE scores are low.

What is the Effect of One or More Withdrawals on the Transcript?

Three items addressed the effect of withdrawals on the graduate admissions process. Less than 4% of respondents agreed that one withdrawal hurts an applicant's chances of admission into their graduate program, and 20.3% of respondents agreed that two or more withdrawals hurt a student's chance of entry into their graduate program. Thus, a faculty member's advice to a student contemplating a course withdrawal might be that one withdrawal is probably not going to hurt chances at graduate admissions.

One question asked whether withdrawals in certain classes (e.g., Research Methods, Statistics) are more detrimental than withdrawals in other classes (e.g., Abnormal Cognition). Over 44% of respondents agreed that withdrawals from certain classes are more detrimental than withdrawals from other classes. One illustrative comment follows:

Withdrawals do not affect a review of the transcripts unless there is a clear pattern of incompletes with poor grades or avoidance of certain kinds of courses (e.g., math). We examine student's [sic] last 60 hours of attempted coursework. I will review transcripts when grade point average and/or GRE scores are low.

After reading the respondents' open-ended responses, however, it became evident that transcript evaluation is a complicated issue. Faculty examine the patterns of Ws over time, and it might make a difference if there are four Ws in one semester or one W in four consecutive semesters in the same course. Perhaps the type of class also interacts with the effect of a withdrawal—a general education course, psychology requirement, or a upper division elective. Stellar GRE scores or an exceeding high GPA may help to ameliorate the effects of Ws on transcripts. Future researchers interested in this topic might want to capture this complexity in an effort to help explain the impact of transcripts and withdrawals on the graduate admissions process.

Conclusions

Based on this research, what should I tell students who ask about the potential effect of withdrawals on graduate school aspirations? The following suggestions emerge from this study:

• Graduate admissions committees carefully examine transcripts; typically by a minimum of two faculty members.
• Graduate admissions committees place a high value on transcripts, and either a low GPA or low GRE score may prompt a closer examination of a transcript.
• One withdrawal does not appear to be a problem. Two withdrawals is probably not a problem, except for a minority of schools. For some institutions, withdrawals in particular courses are more detrimental than withdrawals in other courses.

References


Notes

1. I thank three anonymous reviewers and the editor for their generous and helpful suggestions concerning this manuscript.

2. Send correspondence and requests for a complete list of the questions including item means and standard deviations to Eric Landrum, Department of Psychology, Boise State University, 1910 University Drive, Boise, ID 83725–1715; e-mail: elandru@boisestate.edu.

Comparing Bayes’s Theorem to Frequency-Based Approaches to Teaching Bayesian Reasoning

John Ruscio
Elizabethtown College

Despite the conceptual simplicity of Bayesian reasoning, people often err when calculating or estimating conditional probability. These mistakes can have significant real-world consequences, and