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## CAREER FOCUS

# Understanding Ph.D. Applications

Whether you're an undergraduate, an adviser or on an admissions committee, start thinking about Ph.D. applications as a job search.

Alan Willner

**A**n air of mystery surrounds Ph.D. program applications, something that I was unaware of until I became part of the decision process. Here's where the confusion lies: Many people think that applying for a Ph.D. program is similar to applying to an undergraduate school. However, I believe it's more like applying for a job for two reasons: the criteria are more ambiguous, and personal contact can make an enormous difference.

This can stymie many highly qualified young people—as well as their champions and advisers—who think

they are still in college-admissions mode, where the most meritorious applicant wins. In reality, Ph.D. applicants are in job-hunting mode, where the most desirable future coworker rises above the rest.

## The rules of the game

What's the difference between undergraduate and job applications?

First of all, school admissions tend to be objective, merit-based and not particularly personal, whereas

corporate hiring is more subjective and takes into account which candidate will be a good fit with the company culture. Moreover, undergraduate admissions are typically decided by a centralized professional committee that has rules to ensure fairness, quality and consistency. Companies, on the other hand, tend to be much more decentralized, allowing the specific hiring manager to propose a candidate for approval.

Especially in the United States, the Ph.D. admissions process bears a much stronger resemblance to company hiring protocols than it does to undergraduate school admissions. The process is highly subjective, with individual professors often being the initiators and gatekeepers. This is not necessarily a bad thing—but applicants and their advisers should know the rules before playing the game.

After an application is submitted, the steps are typically as follows: First, the department distributes applications to professors, who are asked to evaluate candidates, especially in their particular research field. Then, the professor—after evaluating the applications and perhaps having direct contact with the applicants—can choose to nominate the strongest applicants for a competitive school-based financial fellowship, recommend the applicant for admission as well as state their desire to work with and financially support the applicant, or simply advise that the applicant deserves admission.

Next, a department committee composed primarily of professors compiles the application details and professors' input, applies its own judgment criteria, tries to find worthy applicants who may have been overlooked, and



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provides standards so that a truly unfit applicant nominated by an overly enthusiastic professor is not accepted. Importantly, the committee places heavy weight on whether any individual professor has indicated that they want to work with the applicant. At the end of this process, the committee emerges with a list of students for fellowships and admissions.

### Risky business

By prioritizing professors' preferences throughout the cycle, the professors essentially become hiring managers for their department. With this important point in mind, what is an effective way for an

applicant to impress a professor? And—perhaps as important—as a professor running an active research group, how do you select a valuable addition to your team?

To answer both questions, it's key to understand a professor's ultimate goal: to minimize risk and maximize reward. In other words, taking on a Ph.D. student is a long-term investment, so professors will often pass over an applicant who seems objectively better in favor of someone who is less risky.

One way for applicants to reduce their perceived risk is to elucidate application details. For example, a highly prestigious award might not be familiar to a professor unless you explain the competition specifics. Also, students should try to put their class and university rank into context, since professors may not know what a grade of X at university Y really means.

### Personalize and persist

An applicant certainly can, and should, influence the Ph.D. admissions process. The key is to target a few specific professors in any given university and appeal to their self-interest by showing you would be a valuable addition to their team.

Application packages should mention these professors, the student's desire to work with them and in their fields, and the student's suitability for these research groups. When recruiting, I routinely focus on those applicants who list my name and my field—which limits my risk of potentially wasting my time.

Another crucial step is to make direct contact with each specific professor. Something is better than nothing—it could be an email, a phone call or, if possible, a face-to-face meeting. The next best thing

to interacting with the professor is contacting the professor's postdocs and current Ph.D. students. These people can be significantly easier to reach than the professor, and professors tend to trust and value their own team's judgment and opinion. If one of my Ph.D. students has spoken to an applicant, and my student is impressed by and wants to work with that person, then that definitely influences

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my decision. Not to mention, an applicant reaching out to my current students shows commendable diligence, attitude and intent.

It's important to be specific during this process. Professors don't like being contacted by a student who is just mass-emailing. I have received emails to the tune of, "I was born to work in your lab," only for me to get the impression that the student cut and pasted my name into a template. Outreach should be specific, sincere and genuine—it is well worth the extra time.

Since professors can be extremely busy, an unreturned email or phone call can mean anything, from "not interested" to "no time to respond." Therefore, students should try again without being pushy or seeming desperate. One of my outstanding former students, now a colleague in Hong Kong, tried to get my attention through emails and voicemails with no response. Finally, he showed up at my office door. I was impressed, and on the spot said I would try to offer him a position.

The bottom line is that the best thing someone could say about an applicant at the department admissions committee meeting is "I interacted with this person directly, and I want to work with them." Whether you're applying for a Ph.D. program, a postdoc position or a tenure-track faculty job, enthusiasm and initiative can help your cause. **OPN**

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2016 OSA President Alan E. Willner (willner@usc.edu) is with the University of Southern California, USA.



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### What are professors looking for?

When considering a Ph.D. applicant for my research group, I typically ask myself the following questions:

- Do I want to work with this person?
- Will this person work well with my existing students?
- Will this person make my research group stronger?
- Does this person have the right attitude to work diligently toward a Ph.D.?
- Does this person have the right technical background? (If not, then there's a risk that they're looking for someone—anyone—who will take them, and they might leave quickly for another group or university.)
- Will this person accept if offered a fellowship or research assistantship? (If the odds are low, then I am possibly losing out on other qualified applicants who are getting other offers.)
- Do I want to work with this person? (This is the most important question, and both the first and last thing I ask myself.)