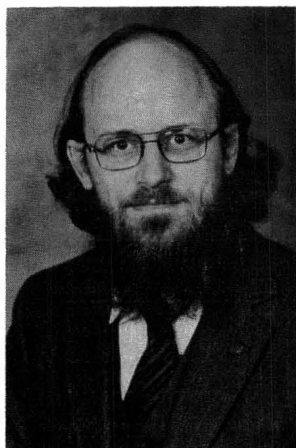


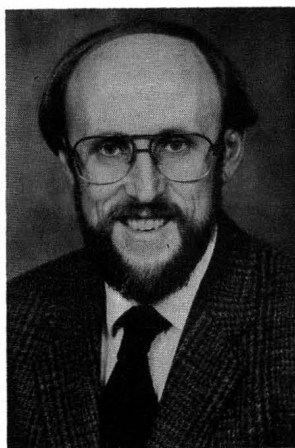
# THE GRADUATE STUDENT'S GUIDE TO ACADEMIC JOB HUNTING

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**I**N EDUCATION AS IN industry, one of management's jobs is to train successors—qualified persons to carry on the excellence of the program or operation. To date, many faculties have not placed a very high premium on this responsibility. We suggest that the job can be simplified and that qualified students can be encouraged and helped to start an academic career. This paper will be addressed to graduate students to help them ease the transition to an academic career. We will look mainly at what a candidate does in preparing for an academic career and the steps he or she needs to take along the road to a job. We will also look at what the school does since this information is helpful to the candidate. Table 1



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provides a guide for the steps and we will refer to it throughout the paper.

## WHAT THE CANDIDATE DOES

Most important is that you obtain an excellent education. You must learn how to do sound research. Obviously, each student does some sort of research, but you must have something to offer your potential school, something that is beyond the ordinary project. In addition to conducting research, be sure your experience includes research planning, proposal and report writing. Think in terms of what a prospective employer might require.

**1. Develop a Resume.** A resume can be used effectively to help you construct your scenario for the future. What it contains will tell you where your strengths are, and what is more important, it will show you what you haven't done. Since you've planned ahead and started early, there's still time for you to gain valuable experience and knowledge, especially in the following areas

- Teaching (try to get lecturing experience)
- Money raising (help with proposals)
- Presentations at meetings
- Paper writing
- References (get to know at least 3 professors well)

By working closely with your advisor and other faculty, you can arrange to gain experience in all these areas.

**2. Pre-screen.** First, what openings are available? The usual locations for advertisements are Chemical Engineering Progress, Chemical and Engineering News, and ASEE Engineering Education News. However, since not all openings are listed, be sure to ask your faculty contacts for suggestions and watch the department's bulletin boards. What openings are you going to apply for? Do your interests and philosophies match the school's? Obviously, to make this decision you must first know your goals, both personal and professional. For example, is geographical location important to you? Is size of school a factor? Religious affiliation? And so on. Where do you find

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information about schools? Several resource guides are available:

- ACS Directory of Graduate Research
- ASEE, March issue of *Engineering Education*
- AIChE Fall Student Member's Bulletin
- Chemical Engineering Faculties, AIChE
- Ratings in *Chronicle of Higher Education*
- Graduate student brochures from schools
- Professors—ask.

What are some things you might look for? Teaching loads, school resources, research areas, promotion policies, and reputation should all be considered. Careful screening at this stage can save time and frustration, even embarrassment, later. There is no point in applying to a school if you wouldn't want to teach there. Use a large

**TABLE 1**  
**Chronological Steps in the Academic Job Hunt**

CANDIDATE	SCHOOL
Does sound research and develops professional goals	Develops an ongoing tradition of excellence which makes school an attractive place to teach and to do research
Decides on academic career	Needs new professor; sets criteria
Develops resume; picks references	
Prescreens school openings	Advertises
Writes individual cover letter & mails with resume	Does initial screening
	Ask for reference letters
Makes sure references are sent	
	Decide to invite for visit
Decide to accept; set up time for visit	
Prepare for seminar; get info about the school	Set up schedule of visit
Visit: Social and individual talks, seminar	
Follow-up: thank you letter and expenses	Decision: offer a job?
Negotiation	Negotiation
Acceptance	
	Prepare place for new professor
Prepare for first year	
Move to new position	

**This paper will be addressed to graduate students to help them ease the transition to an academic career . . . mainly at what a candidate does in preparing for (that) career . . .**

sheet of paper and make up a rating chart to compare the schools.

**3. Send letter plus resume.** Your aim in sending a letter with a resume is to convince the school that you are worthy of consideration. You won't accomplish this aim, however, if you do a blanket mailing and send out a standard letter to many schools. Tailor the cover letter for the particular needs of the hiring department, remembering of course to be forthright in listing your qualifications. Make sure that all critical information is also in the resume. A cover letter may not be circulated as widely, or at all, within the department. Since the typical resume is short, you may need to include important additional documents with it. These may include key submitted papers or papers published in proceedings. If you don't have any publications, now may be a good time to start thinking about writing some.

What is a good time to start applying? The bottom line is that sending nothing is better than sending half-formed ideas. You must have solid research to report, but you don't want to wait until the last minute. Wait until you have at least one paper written and submitted.

Another step in pre-planning involves references. Once you get a response to your letter, make sure that reference letters are sent. These are often a key factor in a school's decision to invite you for an interview; consequently, you must choose the writers carefully. Obviously, your dissertation advisor **must** write a key letter, but others may have a great deal of influence in the "old boy" network. Establish contacts early in your career as a graduate student and get to know faculty members who are competent to judge your work.

**4. Plan trip.** Now that you've received a favorable response and have been invited to visit the campus, several preparatory steps can make that visit easier and more productive. Most critical is the preparation for the seminar you'll be expected to give. Your success depends on how well you prepare because a good presentation will show the school that you can do research, organize ideas, communicate, teach, and handle questions while under pressure.

The first step to writing an effective presentation is audience analysis. Your listeners will be intelligent individuals but few will be experts in your field. Consequently, don't insult the intelligence of some by talking down to them, that is, by explaining matters that should be obvious to a general engineering audience; and don't lose others in an attempt to impress them with arcane minutiae. Give the presentation before your research group and invite any faculty members who may be able to offer advice. Ask for difficult questions and get accustomed to being put on the spot.

Attend seminars and note the qualities that make good presentations effective (and learn from

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the failures). Positive aspects will include manner of presentation—style of delivery, vocal qualities—and effective use of media, usually slide or overhead projector.

For the visit to be successful you must also be prepared to have a clear idea of the directions you expect your career to take. Schools want candidates who will "land running" when they begin their jobs, who know where they want to go. A vague idea of wanting "to teach and do research" is not enough. A corollary is to do research on the school and faculty to discover what their goals are. A quick reading of the department's graduate brochure will acquaint you with the interests of the faculty and give you an idea of where you might fit in. Not only will this information be useful to you, but it will enable you to show them that you know who they are, that you know which faculty you want to talk to and which facilities you want to see. You can only enhance your image as an organized and motivated individual when you show the foresight to ask about computer facilities, special research equipment available and so on.

## **VISIT**

The visit to the campus offers you a great opportunity to shine personally and professionally. The social aspects involve all the typical matters of etiquette—listen to others, learn names, don't drink too much, and so on. But in an attempt to be

all things to everyone don't spread yourself too thin. If the next day looks to be hectic, don't be afraid to be assertive about the need for sleep the night before.

The visit works both ways for the two parties. The school wants to learn everything about you, but you should also take the initiative and ask questions about matters important to your future. For example, what are the facilities like, not just the immediate ones but the support facilities—university computer system, etc.; what are the promotion policies; talk with young faculty about their morale; will graduate students be available; availability of summer support; and teaching load. These questions will affect you from the minute you sign the contract, so you better get answers fast. The department head can answer many of these questions, but many times answers appear in the unlikeliest of places. Keep attuned to conversations with those not at the center of the power structure, especially students and untenured faculty.

The key words for the seminar are "be prepared." Since schools use the seminar to judge your ability to teach, to do research, and to think on your feet, the occasion is very important. Being prepared will help to make the "hot seat" more comfortable when the time comes. Sometimes, however, no amount of preparation will cover everything; inevitably, someone asks a question which leaves you groping. Whatever you do, don't become defensive or hostile. First, make sure you understand the question; rephrase it or ask for it to be repeated. If nothing else this pause will give you time to think. In the interim you might think of an answer. But, be willing to say "I don't know" or "we haven't determined that yet."

## **FOLLOW-UP**

A simple thank-you letter is all that is needed. Include a statement of your expenses and of course be honest in your figures. If several visits were combined into one trip, be sure to pro-rate the expenses. Don't pad and don't try to make money on the trip. If you promised to send follow-up information, papers, or articles, do so immediately. The personal habits you display now will reinforce the good impression you made during the visit.

## **NEGOTIATION**

You've been offered the job: At this point you have the most negotiating power. Spell out what you need and try to get it—within "reason" of



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course. And do so in writing. This is required not because a lack of trust exists, but because misunderstandings arise between even the best intentioned of parties. Some of the negotiable items are the following: computing facilities, equipment, grad student support, lab space, salary, starting date, start-up money for equipment, summer support, teaching assignments, and travel money.

### **ACCEPTANCE**

If the offer is for the job of a lifetime or if it's the only one that's likely to come along, then by all means ACCEPT immediately. If you have several, weigh carefully. Remember that you're making a serious commitment. First accepting an offer and then withdrawing it to accept another offer is not ethical behavior. Note too that the salary or fringe benefits from School A will not mean so much in a few years if the location is such that your hay fever won't be able to adjust to the climate; School B, on the other hand, is ideally suited in this regard, although its starting offer isn't as liberal. And so on. If you still have a visit or two to make then give the schools a date by which you will make a decision. But don't keep the school waiting too long. They need to know.

### **PREPARE FOR FIRST YEAR**

Be sure to finish your PhD. Don't expect to be able to finish writing while on the job. Once you begin teaching, you will be under pressure to produce immediately. Also finish most of the writing of papers arising from your graduate research. When promotion time comes, you will be judged on your new ideas, not the spin-offs of the past.

### **MOVE TO NEW POSITION**

The first year will be an acclimating and settling in experience. First proposals will have to be sent out, research programs initiated, graduate students chosen, first courses developed: in short, the ropes will have to be learned. This is a time to develop your identity. The work you will be judged on will come from you and your graduate students. Since the most important articles will be those in high quality refereed journals, select carefully where you send manuscripts.

You will also be judged on your teaching—not as much as on your research, but bad teaching will hurt you. Excellent teaching helps if you already have good research. Teaching skills can be improved, even learned. Since good teaching may take no more time than poor teaching, find out if your school has an instructional services center. Such centers often offer short courses in improving teaching skills or your department may have a course or structured teaching experience.

### **WHAT THE SCHOOL DOES**

What is the school looking for in a candidate? A research institution wants future research winners, good, but not necessarily outstanding, teachers, and dependable individuals. In choosing their ideal they go through the steps in Table 1. Their choice may also depend on whether they want to fill a gap in teaching or research, or build up a strong area of excellence. To succeed in their selection they will use the screening process, the reference letters, and visit. They will look for potential and sound accomplishment. But they may also go beyond the immediate papers available. They may compare notes with other schools. Schools also know what the going rates for salaries, equipment, and teaching loads are at competing institutions. A carry-over negative attitude to a visit may be communicated to your immediate prospect. So treat everyone respectfully and honestly, even if you decide during the visit that you would not accept an offer.

### **CONCLUSION**

We have tried to formalize the process for searching for an academic job. Our experience has shown that too often students go through a haphazard procedure, getting advice here and there. Attention to details such as noted here should help make life simpler for many graduate students. □

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