Outside the Ivory Tower: Non-academic Positions

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Professional Development Workshop

Department of Kinesiology and Applied Physiology
Education:
• B.A., Physics
• Ph.D., Biomedical Engineering
• Post-doc, Cardiology

Jobs:
• Black & Veatch Consulting Engineers, Kansas
• Los Alamos National Laboratory, New Mexico
• Amco Science, Tokyo, Japan
• DuPont Company, Delaware
• Child Care (6.5 years)
• University of Delaware
Got my M.A., my M.S., or my Ph.D.

Now what?

- Academics
- Government
- Non-profit
- For-profit business
Academic Track

- Post-doc
- Tenure-track junior faculty position
- Non-tenured: increasingly common
Government Track
• Research lab
• Regulatory agency

Non-profit Track
• Research
• Policy
For-Profit Track

• Research & Development
  • Applied Research
  • New Product Development
• Product Improvement
• Regulatory Compliance
• Customer Support/Problem Solving
• Sales
Tradeoffs: Income

**Academic**

More at research universities (next slide)
More $ on the tenure track than off it

**Private sector**

Potential for more, or less, than in academics
Look for a “risk premium” at a start-up
See [here](#) and [here](#)

**Government**

Comparable to mid-level academic institutions

**Non-profits**

Comparable to lower-level academic institutions
### Average Salaries of New Assistant Professors at 4-Year Colleges, 2013-14

<table>
<thead>
<tr>
<th>Discipline</th>
<th>All</th>
<th>Res. Unvs.</th>
<th>Other doct.</th>
<th>MA/MS</th>
<th>BA/BS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>$67K</td>
<td>$76K</td>
<td>$69K</td>
<td>$63K</td>
<td>$56K</td>
</tr>
<tr>
<td>Agriculture and related</td>
<td>$70K</td>
<td>$75K</td>
<td>—</td>
<td>$59K</td>
<td>—</td>
</tr>
<tr>
<td>Natural resources and conservation</td>
<td>$61K</td>
<td>$68K</td>
<td>—</td>
<td>$58K</td>
<td>—</td>
</tr>
<tr>
<td>Health professions, etc.</td>
<td>$69K</td>
<td>$77K</td>
<td>$67K</td>
<td>$65K</td>
<td>$55K</td>
</tr>
<tr>
<td>Biological/biomedical sci</td>
<td>$64K</td>
<td>$73K</td>
<td>$65K</td>
<td>$57K</td>
<td>$54K</td>
</tr>
</tbody>
</table>

Source: Chronicle of Higher Education

[http://chronicle.com/article/Average-Salaries-of-Tenured/145287/]
Tradeoffs: Job Security

University

Tenure = job security, but tenure is hard to get
Majority of faculty jobs now are non-tenured: less secure, lower pay

Corporate

Market forces, economy
Larger companies tend to turn over more slowly than small companies
Tradeoffs: Job Security

Non-profits
- Depend on sources of funding

Government
- Economy & politics
- Privatization: NASA (Wyle, USA, ...), Los Alamos National Lab (LANS), etc.
Tradeoffs: Lifestyle

Academic

• Pressure to publish & get grants
• Long summer vacation? No
• Some scheduling flexibility

For-profit

• Pressure to justify your paycheck
• Some jobs involve significant travel
• Periodic relocation may be possible/required

Government

• Responsibility & pressure increase as you rise
Ideals & Benefits

**Academic**
- Teaching students who want to learn: 😊
- Research to solve medical/environmental problems

**Government & Non-profits**
- Research & regulation to preserve environment, keep people safe, healthy, fed, etc.

**For-profit**
- Making the world a better place
- New & improved products for customers
- Good paying jobs for employees
Job Searching: Non-Academic

Companies (people) want to hire successful people

Be successful in your current job

If your job is being a graduate student, “success” is

- Publishing articles
- Presenting at meetings
- Applying for grants & scholarships
Job Searching: Non-Academic

How will you help the company

• Satisfy its customers
• Solve a problem
• Develop new or improved products

Your list of publications and grants is less important than in academic jobs

People skills are even more important
Do your research on the company

Company site, Lexis-Nexis, S&P, 10-Qs, Google

Ex: Lexis-Nexis > Stryker > items 1, 2 > Small Bone Innov.

Focus on the business line for which you are interviewing

If you know who you’re meeting, learn about them
Job Searching: The Interview

Be ready to show your technical skills

Dress a bit better than the norm for the people you are meeting

Be ready to explain how you can help the company

Show that you will represent the company well to its customers
Job Searching: Non-Academic

Keep your resume and online profile (LinkedIn page) up to date

Include a professional head shot

Send your online profile link to employers, recruiters
Non-Academic Job Sites

Chronicle of Higher Ed: non-academic

Even universities have “non-academic” jobs

Sciencecareers.org (AAAS)

the-scientist.com

US Government Jobs

Example: Advanced search > Occupational series > Entomology > Search

State Government: Delaware, Pennsylvania

Note the civil service/non-civil service distinction on the PA site

Getting a job in industry advice: NextScientist