

# Outside the Ivory Tower: Non-academic Positions

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Professional  
Development  
Workshop

## 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

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

Source: Chronicle of Higher Education

<http://chronicle.com/article/Average-Salaries-of-Tenured/145283/#faculty-salaries-source>



# 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 (LANL), 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

# Job Searching: The Interview

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](#)