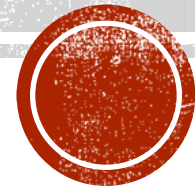


# **POST DOC CAREER PLANNING**

**Mark Emmons**

**New Mexico Post Doc Leadership Program**

**January 11, 2017**



# INTRODUCTION

- Mark Emmons, MLS, EdD
  - Librarian
  - Professor
  - Associate Dean
  - College of University Libraries & Learning Sciences, UNM
- Experience in Public Research 1: Highest Research Activity university (UNM) and in private liberal arts college (Occidental)
- Chaired and served on numerous faculty search committees



# **NEXT GEN PHD: A GUIDE TO CAREER PATHS IN SCIENCE BY MELANIE V. SINCHE**

1. Self-knowledge
2. Career exploration
3. Goal setting
4. Job search



# PLAN YOUR CAREER

- Develop an Individual Development Plan
  - Know yourself
  - Set goals
- IDP: <http://myidp.sciencecareers.org>
- IDP description:  
<http://www.sciencemag.org/careers/2012/09/you-need-game-plan>

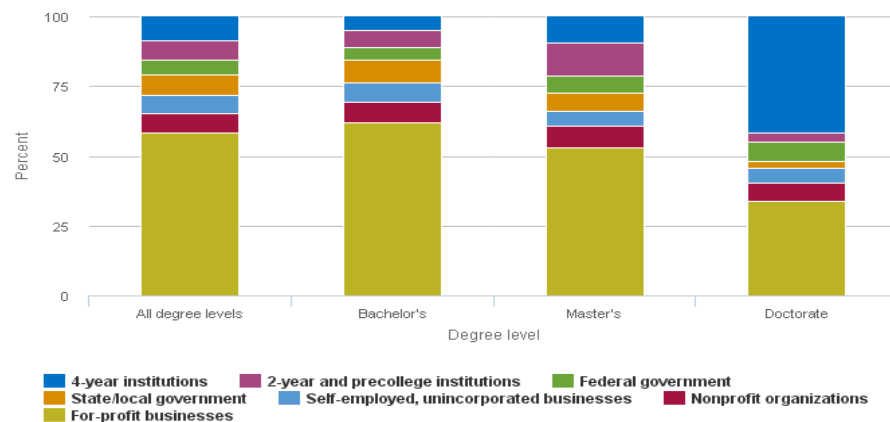


# EXPLORE CAREERS IN SCIENCE AND ENGINEERING

- *NSF Science and Engineering Indicators 2016*
- <https://www.nsf.gov/statistics/2016/n sb20161/#/figures>

Doctorate	
4-year institutions:	41.6
2-year and precollege institutions:	3.4
Federal government:	6.9
State/local government:	2.4
Self-employed, unincorporated businesses:	5.3
Nonprofit organizations:	6.5
For-profit businesses:	33.8

Figure 3-10  
S&E highest degree holders, by degree level and employment sector: 2013



NOTE: All degree levels includes professional degrees not reported separately.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Scientists and Engineers Statistical Data System (SESTAT) (2013), <http://sestat.nsf.gov>.

*Science and Engineering Indicators 2016*



# KNOW THE JOB: ACADEMIA

- Get experience with...
  - Teaching
    - Content
    - Pedagogy
    - Advisement
  - Research
    - Scholarship
    - Grants
  - Service



# KNOW THE JOB: NON-PROFITS & GOVERNMENT

- Look for research and analysis roles in:
  - Advocacy and policy
  - Civil Service
  - Health care
  - Law
  - Intelligence
  - Military
  - Non Government Agency
  - Patents
  - Science agencies



# KNOW THE JOB: INDUSTRY

- Get experience in the sector that interests you.
  - Internship or apprenticeship
  - Job shadow
  - Interview



- Top entry level jobs (per Ryan Raver <http://thegradstudentway.com/blog/?p=2153>)
  1. Industrial R&D Scientist
  2. Product Specialist or Technical Marketing Specialist
  3. Technical Support Scientist
  4. Manufacturing/Operations
  5. Technical Writer
  6. Medical Science Liaison
  7. Consulting
  8. Sales (i.e. Field Application Scientist, Inside Sales)
  9. Recruiter
  10. Project Coordinator
  11. Technical Applications/Support and Customer Education





# KNOW THE JOB: INDUSTRY

Margaret Newhouse  
Outside the Ivory Tower  
1993

## Career Fields by Skills

The skills that you have developed during graduate studies are readily transferable to a variety of occupational settings. The following chart outlines some possible career options. For a deeper overview of Biosciences career options and skills related to these choices, see <http://biosciences.stanford.edu/current/career/sectors/index.html>

		CAREER FIELD					
		Business & High Tech	Media	Education	Non-Profit	Public Policy	
SKILLS	Research & Analysis	R&D, risk analysis, market research, consulting	journalism, market research evaluation, archival work	research ctrs, educational research & foundations	research efforts, think tanks, research centers,	government research, state & local agencies	
	Teaching	sales, training, development	sales, radio/TV, advertising, journalism	teaching, freelance, lecturing	public education, development, community organizing	politics, executive branch, fundraising, interest groups	
	Writing & Communication	corporate communications, communications analysis, PR, advertising	journalism, writing, editing, publishing, PR, advertising	publishing (educational), reporting, writing	PR, newsletter & publications editing	speech & report writing	
	Administration & Management	management positions, consulting	editing, publishing, corporate publications, management	academic administration (college dean, school principal)	event planning, foundation management	program management, agency administration	
	Problem Solving	consulting, marketing, management, specialty consulting	investigative reporting, PR, management, consulting consulting	academic administration, educational tanks	management, nonprofit consulting, think political	government positions, policy research,	
	People Skills	consulting, marketing, management	sales/marketing in publishing, interviewing	student services (counseling, administration)	development, management, advocacy	politics, (candidate or staff), fundraising, lobbying	
	Technical & Scientific Skills	info. systems, R&D, actuarial consultant	specialty publishing, professional journals, tech. writing	computers in education, curriculum development	R&D, consulting for hospitals, info. systems, environmental groups	national labs, EPA, Census, NSF, NIH, local & int'l scientific agencies	
	International Expertise	cultural consulting, risk analysis, int'l business	int'l media, specialty publishing	int'l education, curriculum development, educational tours	int'l consulting & orgs.	Peace Corps, int'l orgs & agencies, policy think tanks	
	Arts & Other Creative Skills	advertising, computer music, graphics	criticism, writing, art, illustration	art education	museums, music therapy, arts orgs.	administration of arts agencies	



# COMMON JOB SKILLS

## Technical Skills

- Computer literacy
- Data management
- Project management
- Scientific method(s)
- Statistics
- Use of lab equipment

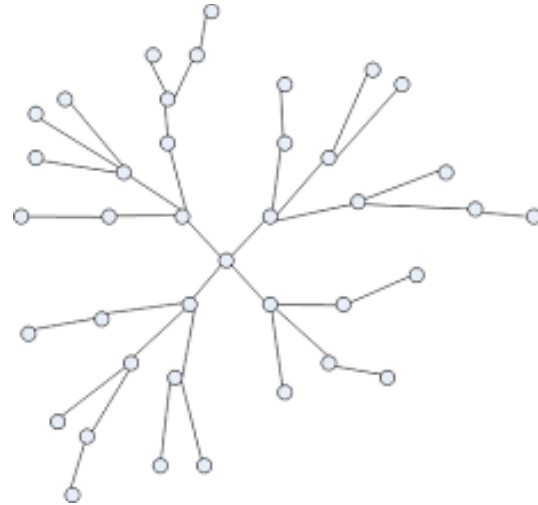
## Soft Skills

- Ability to work independently
- Collaboration and teamwork
- Communication, oral and written
- Leadership and administration
- Problem solving



# PREPARING YOURSELF

- Find mentors
- Develop network of contacts
  - Informational interviews
- Increase your visibility
  - On social media
  - In the discipline
- Develop skills
- Get experience and build credentials
- Develop teaching and research statements
- Make time



# SEEKING A COLLEAGUE (THE HIRING PROCESS)

- Vacancy to fill gap
- Job description
  - Required
  - Preferred
- Initial screening
- Phone interview
- In-person interview
- References
- Hiring officer



# FINDING THE JOB (ACADEMIC FOCUS)

- Target university web sites
- Search Higher Education web sites
  - Chronicle of Higher Education - [Vitae](#)
  - [HigherEdJobs](#)
  - [HERC](#)
  - [Inside Higher Ed](#)
- Subscribe to listservs in your field; read blogs
- Network
- Be flexible!



# INVESTIGATE THE INSTITUTION

## Investigate

- Understand the job
  - Requirements
  - Preferences
  - P&T
- To see where the position fits:
  - Study the catalog and class schedule
  - Investigate faculty research interests
- Explore the larger institution
  - Mission
  - Student population
  - Facilities
  - Setting

## Sources

- Internet
  - General search
  - College guides
  - News
- Mentors and network



# APPLY FOR THE JOB

## Cover Letter

- Write a new letter for each job
- Address **every** requirement
- Address preferences, highlighting those you possess
- Point to details in CV

## CV

- Tailor to the job description and the institution
- Highlight relevant experience and skills
- Make it easy to find required and preferred skills



# JOB AFFINITY EXERCISE: PART 1

## Group exercise

- Join group:
  - Liberal arts college: Sweet Briar College
  - Four year and master's college: Cal Poly Pomona
  - Research university (highest): University of Minnesota
  - Federal / research lab: Sandia National Laboratories
  - Consulting firm: Dunsky Energy Consulting
- Examine packet to determine requirements, preferences, environment, etc.
- Summarize





# JOB AFFINITY EXERCISE: PART 2

## Individual exercise

- Pull up your CV. Highlight matches and complementary areas between information in the packet and your background.  
(For the sake of the exercise, you can pretend that content knowledge was a perfect match to your background if needed.)
- Do you meet the minimum requirements?
- Do you have the preferred knowledge, skills, and abilities? What are your transferable skills?



# INTERVIEW FOR THE JOB

## Phone

- Communication with search coordinator
- Interview with search committee



## In-Person

- Interviews:
  - Committee
  - Chair/Dean
  - Faculty
  - Students
- Teaching demo
- Research talk
- Social and informal



# INTERVIEW TIPS

- Keep in mind that it is all about fit; if you are successful, you will be colleagues.



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- Prepare and practice.
- Dress appropriately; display good manners; treat everyone well.
- Never be negative!
- Follow up with a thank you letter expressing interest in the job.



# PREPARE MATERIALS FOR THE INTERVIEW

- CV
- Sample syllabus
- Publications
- Research needs list
- Questions to ask



# COMMON INTERVIEW QUESTIONS

- Why are you interested in this position?
- How would you teach (philosophy, motivation, methods, technology):
  - An introductory course? An advanced course?
  - A theory course?
  - A methods course?
- What course would you like to develop?
- Tell us about your dissertation (prepare for experts and non-experts).
- What are your current research interests? Your future research interests?
- Do you have any questions for us? Is there anything else you would like to share about yourself?



# BEHAVIORAL INTERVIEW QUESTIONS

Behavioral interview questions ask about specific work experiences in order to understand how you might behave in the future. They are usually aimed at seeing if you have soft skills.

- Tell us about a time that you:
  - motivated a student to actively participate in class.
  - saw a problem and took the initiative to correct it rather than waiting for someone else to do it.
  - resolved a conflict while working on a team.
  - persuaded a team member who disagreed to see things your way.
  - took the lead on a difficult project.
  - analyzed information to make a decision or recommendation.
- What did you do? What would you do differently?



# BEHAVIORAL INTERVIEW QUESTIONS

- Answer behavioral interview questions with a success story using STAR:

<b>S</b> <b>Situation</b>	Detail the background. Provide a context. Where? When?
<b>T</b> <b>Task</b>	Describe the challenge and expectations. What needed to be done? Why?
<b>A</b> <b>Action</b>	Elaborate your specific action. What did you do? How? What tools did you use?
<b>R</b> <b>Results</b>	Explain the results: accomplishments, recognition, savings, etc. Quantify.

**'STAR' Technique to Answer Behavioral Interview Questions**  
<http://www.RightAttitudes.com>



# BEHAVIORAL INTERVIEW QUESTION EXERCISE

Individually select one of the questions from the previous slide. Use STAR to answer:

<b>S</b> <b>Situation</b>	Detail the background. Provide a context. Where? When?
<b>T</b> <b>Task</b>	Describe the challenge and expectations. What needed to be done? Why?
<b>A</b> <b>Action</b>	Elaborate your specific action. What did you do? How? What tools did you use?
<b>R</b> <b>Results</b>	Explain the results: accomplishments, recognition, savings, etc. Quantify.

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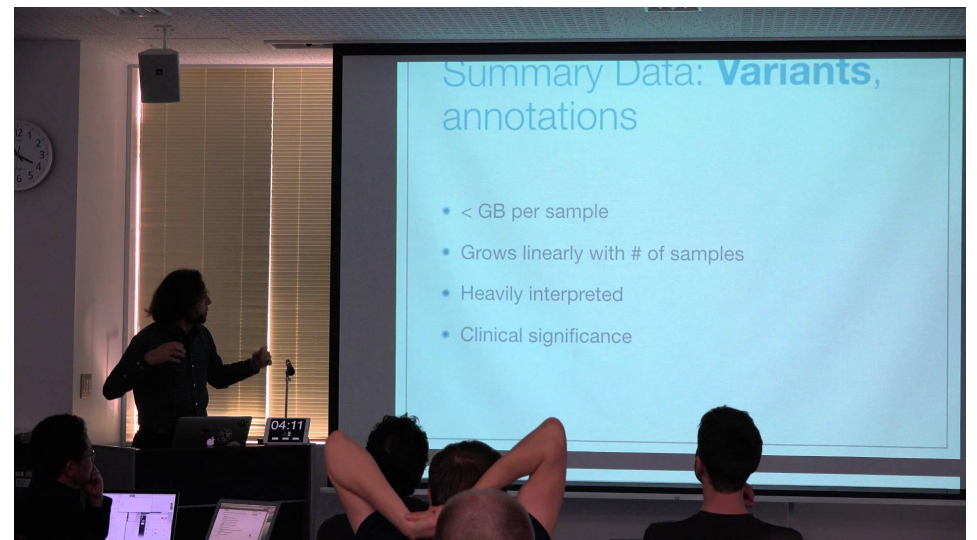
# THE TEACHING DEMONSTRATION

- Be authentic as possible
- Provide context
- Know your students
- Interact with your students and facilitate a conversation
- Keep to your time
- Demonstrate any claims you make in your cover letter



# THE RESEARCH SEMINAR

- Introduce yourself
- Describe your research study to a mixed audience
  - Hypothesis
  - Design
  - Analysis
  - Conclusions and implications
- Summarize and invite questions
- Keep to your time



**QUESTIONS?**

