What does this entail?

- Teaching
- Curriculum development
- Demonstrations
- Educational materials
- Leveraging diversity
- Program management (science fair)
- Student advising
- Student/postdoc services
Where are the jobs

- Academia (K-16+)
- Zoos/Museums
- Industry
- Extension
- Government
- Non-profit
- Entrepreneurial

N=17
What are the jobs called?

- Program/Projects
  - Director
  - Manager
  - Analyst
  - Coordinator
  - Specialist

- Career Development
- Outreach Specialist
- Education and Community Involvement Specialist
- Curriculum development
- Educator
- Grants program manager
- Outreach coordinator
- Teacher/Instructor
Requirements

- Science Knowledge
- Knowledge of Education/Outreach
- People Skills
- Communication
  - Written and Verbal
- Analytical
- Project/Time Management
Knowledge of science

Broad science background

How to prepare yourself:

- Mentor a summer student
- Give as many presentations as you can
- Read widely
- Keep abreast of the latest scientific and technological developments
- Attend seminars, journal clubs, conferences, etc.
- Know and talk to the experts in the fields
- Learn from the expertise and experience from others

- Note here your science will really be focused on topics interested to a BROAD audience, so the level of detail you will need is very different.
Knowledge of education/outreach

- Proven record of teaching and/or outreach
  - Develop curriculum, deliver topics, engage/control students
- Experience teaching to broad audiences
  - How to create a workshop for kindergarten vs. high school
- **How to prepare yourself:**
  - Mentor a summer student
  - Teaching coursework
  - Teach classes
    - community college, high school, undergraduate
  - Do outreach
    - judge science fairs, join National Lab Day, Schools Without Walls, zoo/museums
  - Develop educational materials
  - Get teacher certification (note programs for professionals at many universities)
People Skills

- Understand personality types
- Teamwork
- Know how to build consensus
- Manage staff and volunteers
- Network

**How to prepare yourself:**

- Committee work, volunteer work
- Organize and lead meetings in your committees
- Collaborate with people in own and other labs
- Take Leadership courses
Verbal Communication Skills

- Talk, educate, negotiate, etc. with people from various sectors, ages and educational backgrounds
  - Team members/volunteers
  - Kids/parents
  - Donors

How to prepare yourself:
- Speak about your research to broad audiences
- Practice public speaking, join Toastmasters
- Speak with folks outside of your discipline
- Teach/volunteer
Written Communication skills

- Experience writing varied materials for multiple audiences
  - Curriculum (handouts)
  - Marketing materials
  - Grants

- Business correspondence
  - Memos and emails
  - Clear and concise language

- **How to prepare yourself:**
  - Write papers, reviews, grants
  - Write non-technical material or other newsletter articles
  - Take Writing classes
  - Volunteer to help write promo material
  - Write a grant for a school or a teacher
Analytical/organizational skills

- Able to decipher, analyze and organize info
  - Set expectations and evaluations of programs
- Show attention to detail
- Able to maintain budget

**How to prepare yourself:**

- Transferable skills from bench science
  - Gather, analyze and organize information
  - Find and test solutions to problems
  - Formulate plans
Project and Time Management

- Plan the tasks and allocation of resources
- Manage different projects at the same time
- Complete tasks on deadline

**How to prepare yourself:**
- Manage someone else
- Goal Setting
- Planning, scheduling, and prioritizing
- Organize more than just your daily experiments
- To-do list
- Detail oriented
Computer Skills

- Able to use software and databases
- Microsoft Office
- Email
- Internet

**How to prepare yourself:**
- Learn programs now
What can I do now?

- Internship/Volunteer Opportunities at Harvard
  - National Lab Day (http://science.education.nih.gov/ScientistsVolunteer)
  - Curriculum Fellows in our HMS BCMP department
  - HMS Office for Diversity Inclusion and Community Partnership
  - Bok Center for Teaching and Learning
  - Science in the News (SITN)
  - Harvard Graduate Women in Science and Engineering (HGWISE)
- More information can be found on handout
Questions