

# Careers in Industry



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“To know how to free oneself is nothing; the arduous thing is to know what to do with one's freedom”

Andre Gide

# Career Options

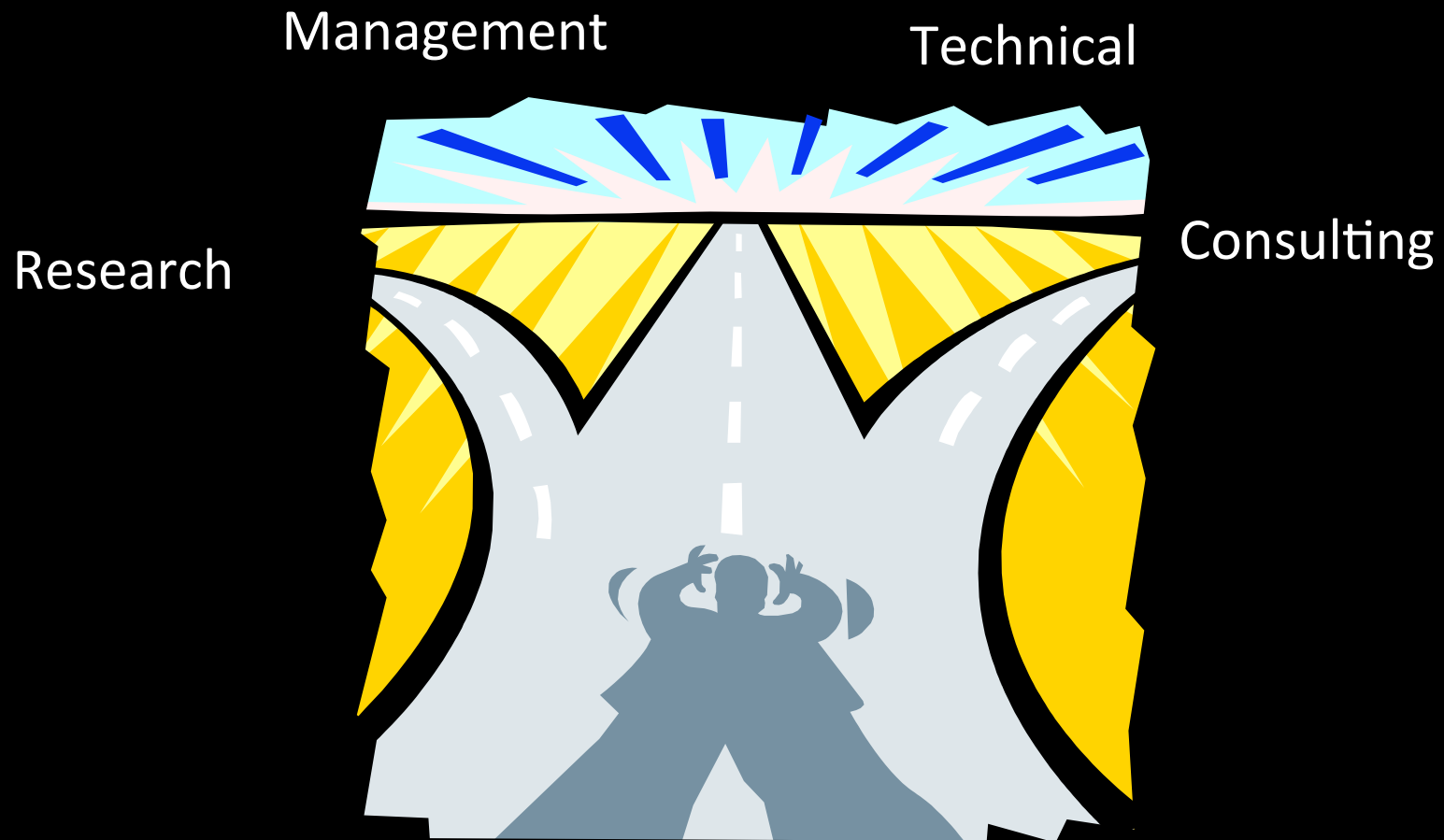
Government

Industry

You, Inc.



# Industry Staff Options

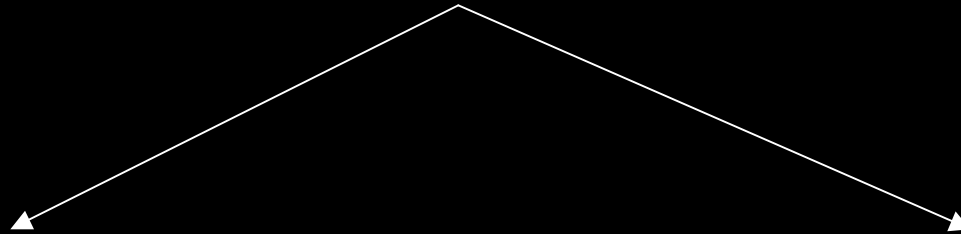


# The Industry “Ladder”

Project Lead,  
Member of  
Technical Staff

Lab Director

Vice President



# Types of Jobs

## Ph.D.

- Member of Technical Staff
- Director
- Project Manager
- Researcher

## No Ph.D.

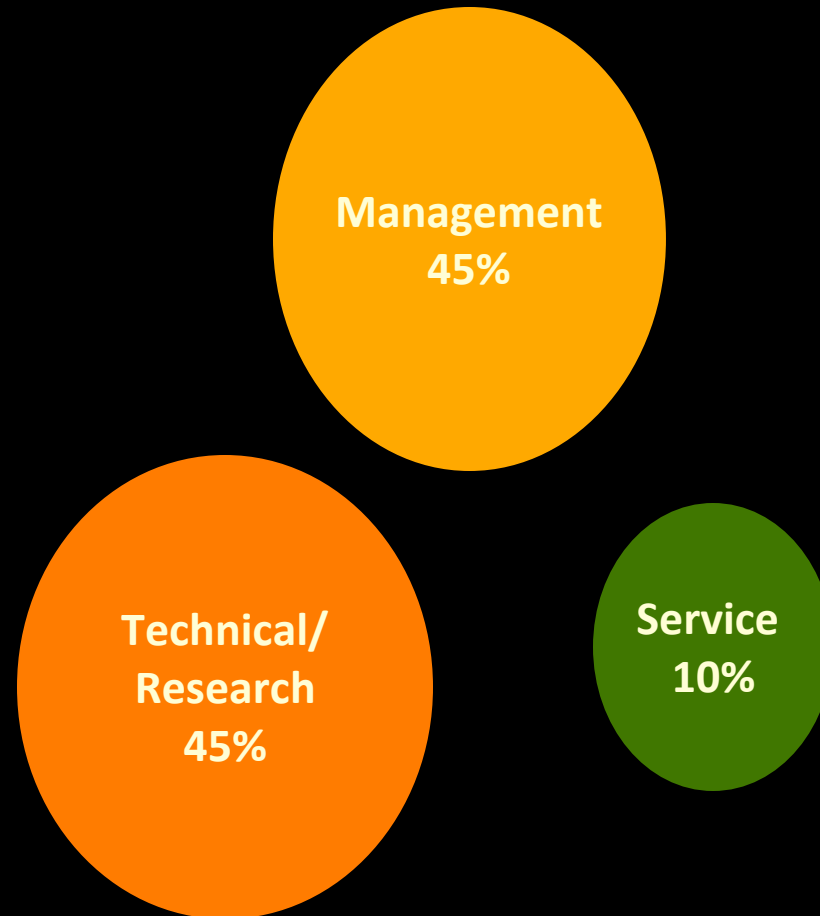
- Technician
- Engineer
- Operations Specialist
- Technical Associate

# Industry Responsibilities

The major difference between degrees is in the level of original thinking that is expected.

- Ph.D.'s are trained to be leaders and to conceive and promote new ideas.
  - ✓ Total project autonomy (budget, technical, product development, research)
  - ✓ In some professions a Ph.D. or some other doctoral degree is your entry card (e.g. Professor)
  - ✓ International Project Lead
  - ✓ Business Partner Liaison
- M.S. students are trained to participate as part of a team carrying out advanced work

# Industry Responsibilities



# Tips on Applying for an Industry Position

- Secure internship and/or Coop
- As a student establish a broad network
- Prepare a corporate resume including all experiences and clear objective
- Become involved with community service/outreach
- Demonstrate leadership capabilities
- Secure any required licensing
- Demonstrate excellent communication skills
- Most jobs with Ph.D. are not at career fairs

# Government Staff Options

**Operations**

**Administration**

**Research**

**Policy**



# Government Ladder

Engineer  
Scientist

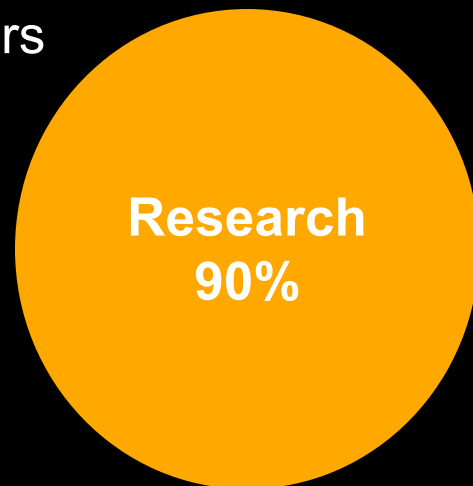
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graph TD; A[Engineer Scientist] --> B[Senior Scientist  
Chief Scientist]; A --> C[Branch Head  
Program Director  
Lab Director  
Division Head]
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Senior Scientist  
Chief Scientist

Branch Head  
Program Director  
Lab Director  
Division Head

# Scientist Responsibilities

Journal Articles  
Conference Papers  
Books  
Patents



Committee work  
Advising  
Leadership  
in Professional Society



# Government Scientists

- Focus exclusively on research, no teaching requirement
- Responsibilities usually depend on degree
  - Ph.D. – Direct research and supervise research support scientists
  - MS/MA – Support lead project scientist(s)
    - Research is focused: Minimal “academic” freedom to pursue any research topic
    - Optional activities
  - Teaching/Advising Students (Adjunct professor)
  - Managing/supervising branches or divisions
  - Participation in international policy

# Tips on Finding a Scientist Position

- USAjobs.gov: One-stop shop for all federal jobs
- Discuss employment opportunities with scientists at laboratory of interest
- Work at university with close connection to a federal laboratory to gain experience and learn about federal scientist positions
- Consider national post-doc/research programs that place you in a federal laboratory (e.g., National Academies of Science research associate/post-doc programs)