Becoming a Professional Scientist
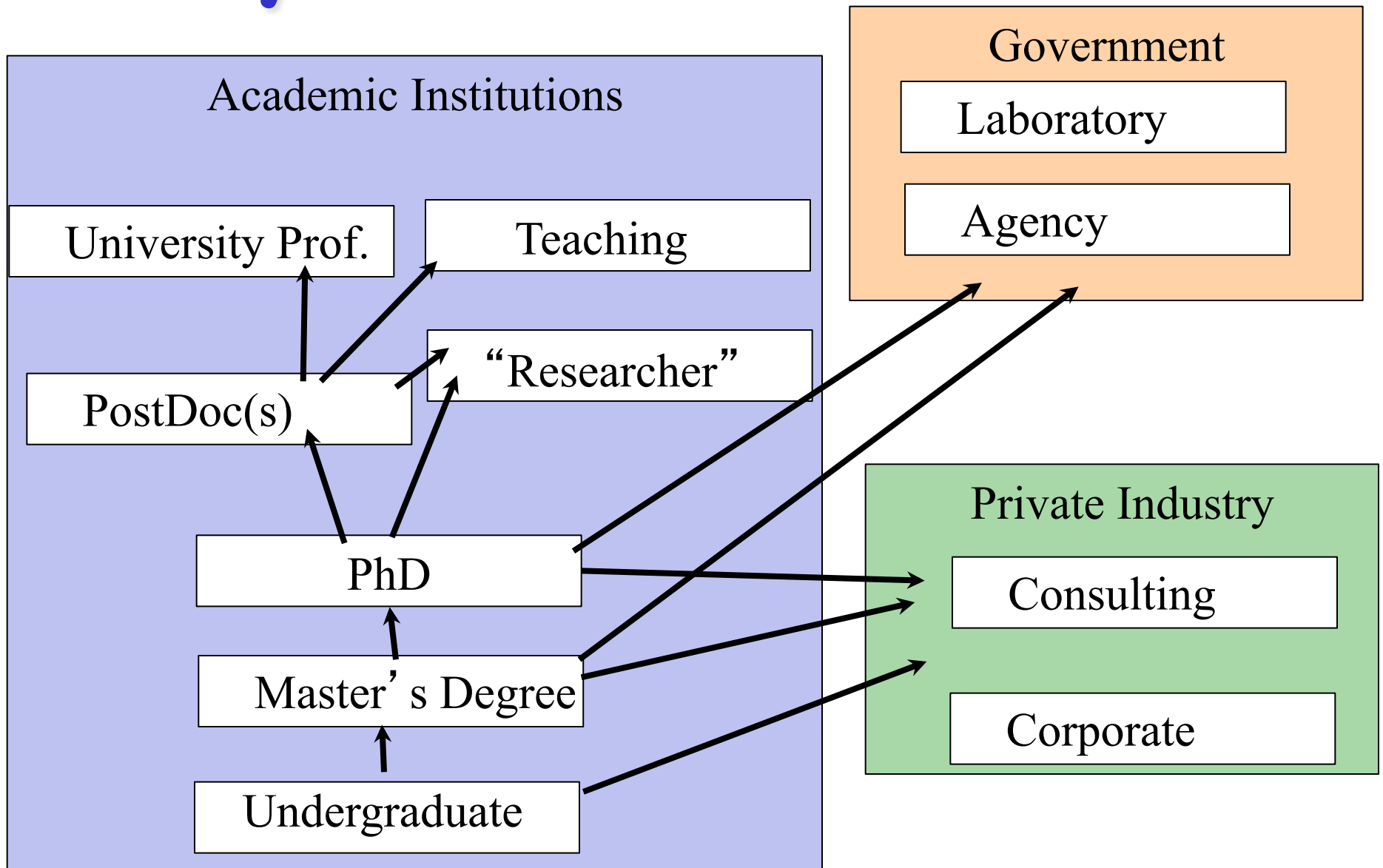
CMMAP
Reach for the sky.

Colorado State University

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Director of Education, CMMAP

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http://ChangingClimates.ColoState.edu

Early Career Scientists

Grad School

- Different degrees/disciplines
- Admissions:
  - Grades
  - GRE tests
  - Letters
  - Applicant statement
- Funding!
- Research Mentor
- Classes & grades
- Publications & thesis

Consulting Jobs

- "Environmental Consulting" companies
- Project based business model
- Practical and efficient
- Hydrology, weather, pollution, power generation, regulatory compliance
- Job security, salary, etc
- Employment & self-employment

Corporate Jobs

- R&D in large companies
- Wind, solar, alternative energy
- Regulatory compliance
- Technical vs executive career tracks
- Job security and benefits, salaries, etc

Government Jobs

- Research Laboratories
  - Climate, weather, satellites, analytical
  - Team membership vs team building
  - Budgets
  - Publications

- Agency Scientists
  - NOAA, NASA, USGS, EPA, USDA, etc
  - State and local governments
  - Implementation of agency mandates
  - Regulatory compliance

- How to get these jobs?

- Security, Benefits, Salary, Advancement

PostDoctoral Work

- Most academic positions will require postdoctoral experience
- These are jobs! (not just more school!)
- Some people do 3, 4, 5 postdocs
- Two parts:
  - Publish previous work
  - Find another job
- How to fund (and find) postdocs
- How to move on from postdoc
- Job security, salary, etc

Teaching Faculty

- College teaching almost always requires a PhD, Secondary teaching requires undergrad degree & certification

- Generally teach 3 to 5 courses per semester

- Course development, teaching, grading, evaluation, professional skills

- Resources from publishers & academics

- Job security, benefits, salary, etc

Research Scientists

- "Soft-money" academics
- Research Scientist vs Research Faculty
- Team member vs team builder
- Proposals
- Review process
- Publications
- Security, Benefits, Salary, Advancement
- How to get these jobs
- What to do next

University Faculty

- Teaching, Research, Service (typically weighted 40%, 40%, 20%)
- Teach 2 to 3 courses per year
- Support & mentor graduate students
- Research funding, proposals, reporting
- Publications
- Tenure process and promotion
- Job security, salary, benefits, advancement
- 9-month vs 12-month salary basis
- How to get these jobs

Getting University Faculty Jobs

- Advertising & recruiting "seasonal cycle"
- Application components
- Screening process
- Interview process
- Negotiations
- Startup package
- Expectations: teaching, research, admin support, IT support, student support, equipment, infrastructure

New Faculty Issues

- Timing of start and teaching
- Summer salary
- Support for grad students, research staff
- How to find funding opportunities
- Applying for research funding
- Building a research group
- Balancing teaching and research
- Teaching well
- Service
- Tenure