Non-Academic Career Options

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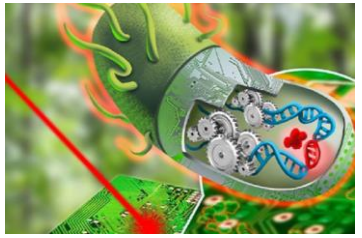
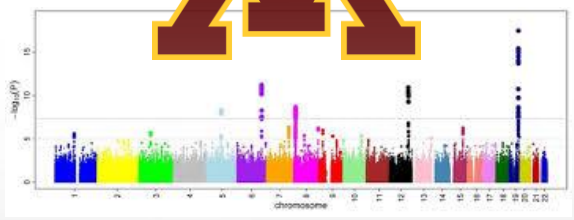
Texas A&M University

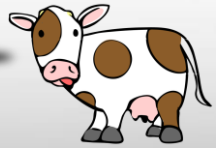
My Career Path

VETERINARY MEDICINE & BIOMEDICAL SCIENCES
TEXAS A&M UNIVERSITY

signature science LLC





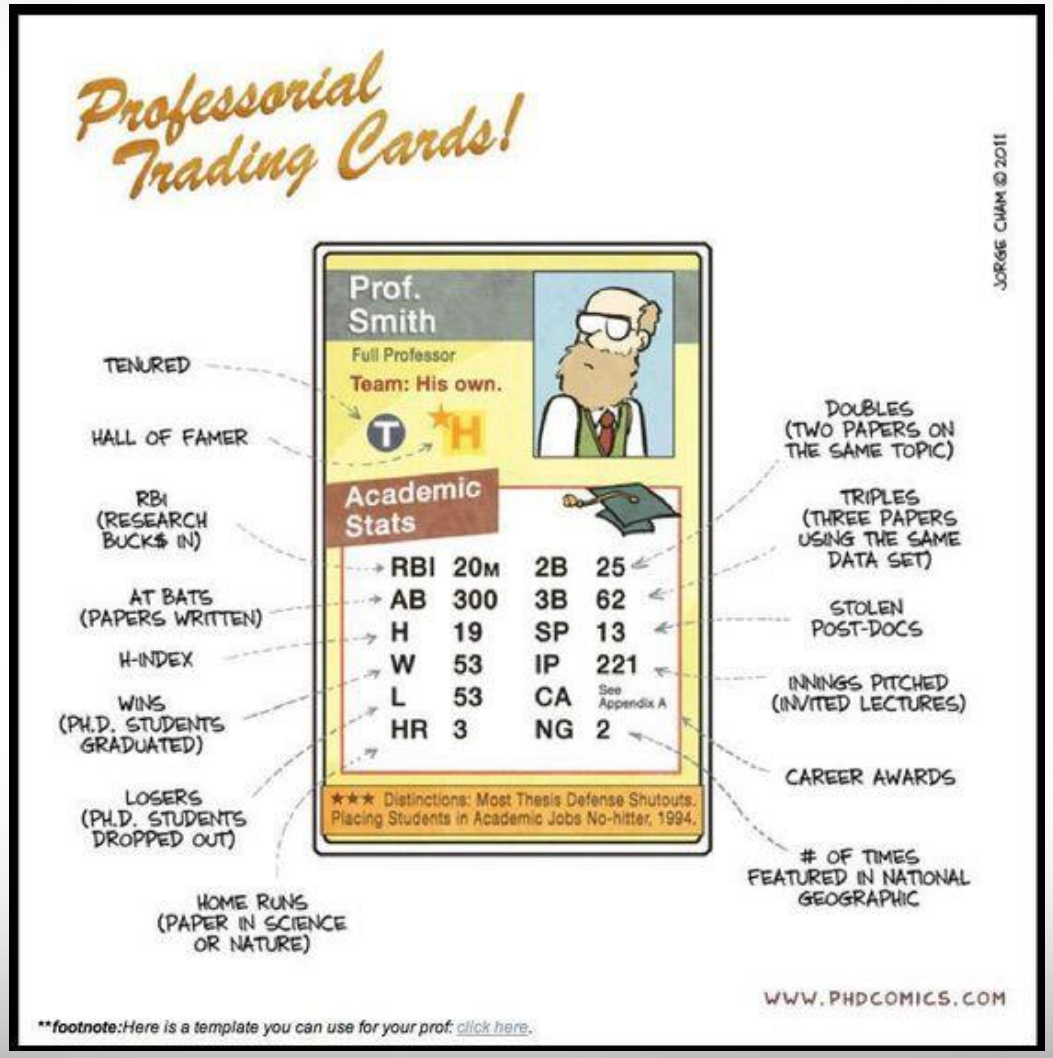


BUDGET

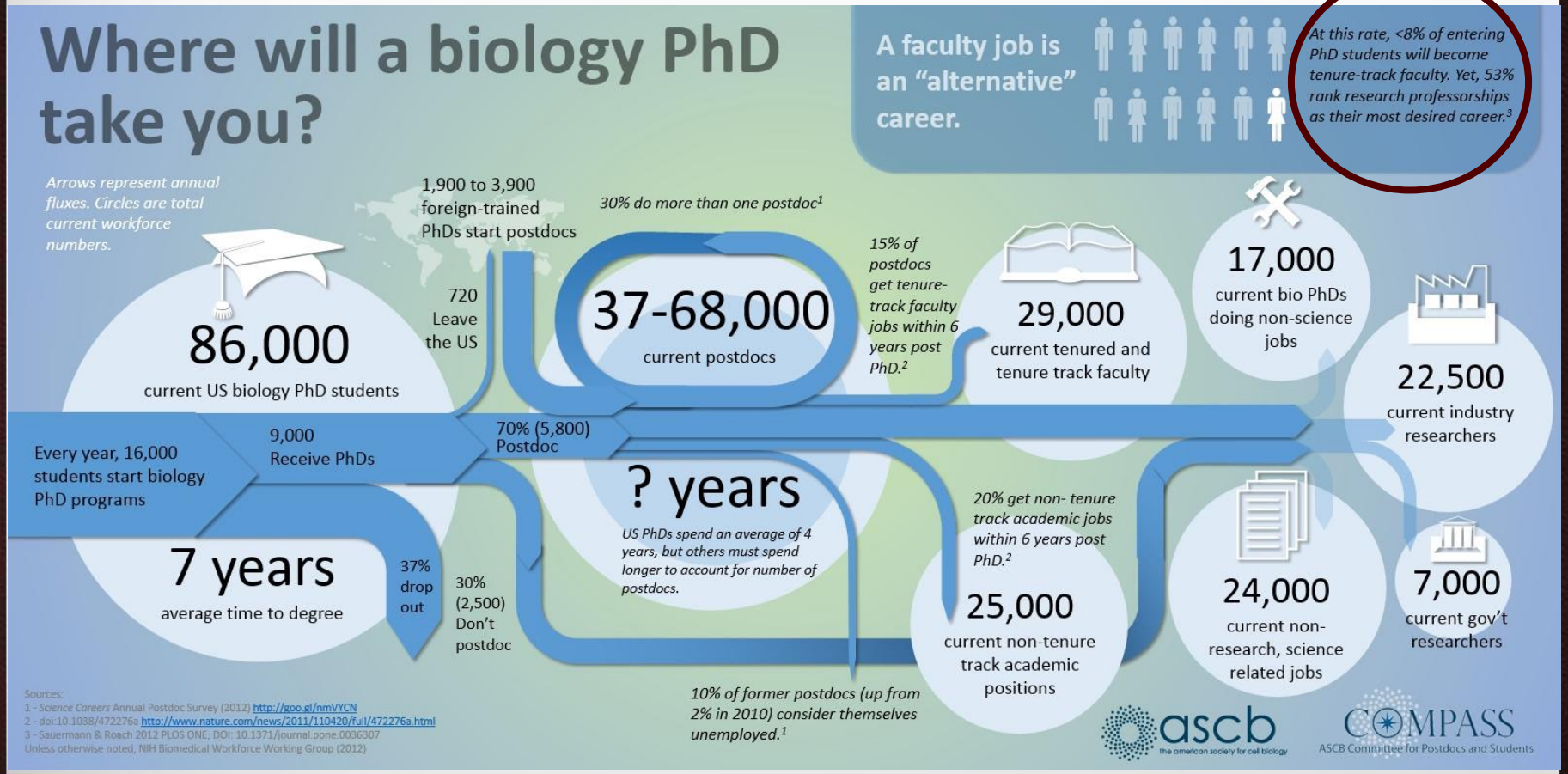
Educational Background

- B.S. in Animal Science (2000-2004)
  - University of Illinois in Urbana/Champaign
    - Undergraduate Research Advisor: Dr. Jonathan Beever
- Ph.D. in Genetics (2004-2009)
  - Texas A&M University in College Station
    - Graduate Research Advisor: Dr. Loren Skow
- Postdoctoral Fellowship in Genomics (2009-2012)
  - University of Minnesota in Saint Paul
    - Postdoctoral Research Advisor: Dr. James Mickelson

Metrics of Success in Academia



< 8% Tenure Faculty



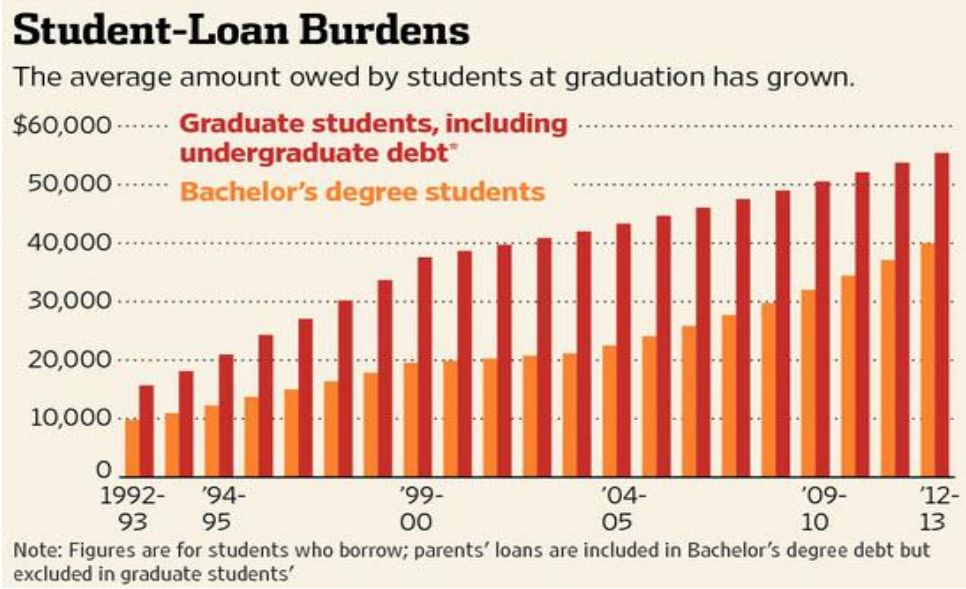
Source = http://www.ascb.org/wp-content/uploads/2014/04/workforce_infographic_ASCB_COMPASS.jpg

Average Time to Full Professor

- BS/BA = ~4 years
- MS = ~2 years
- PhD = ~6 years
- Postdoc = ~4 years
- Assistant Professor = ~6 years

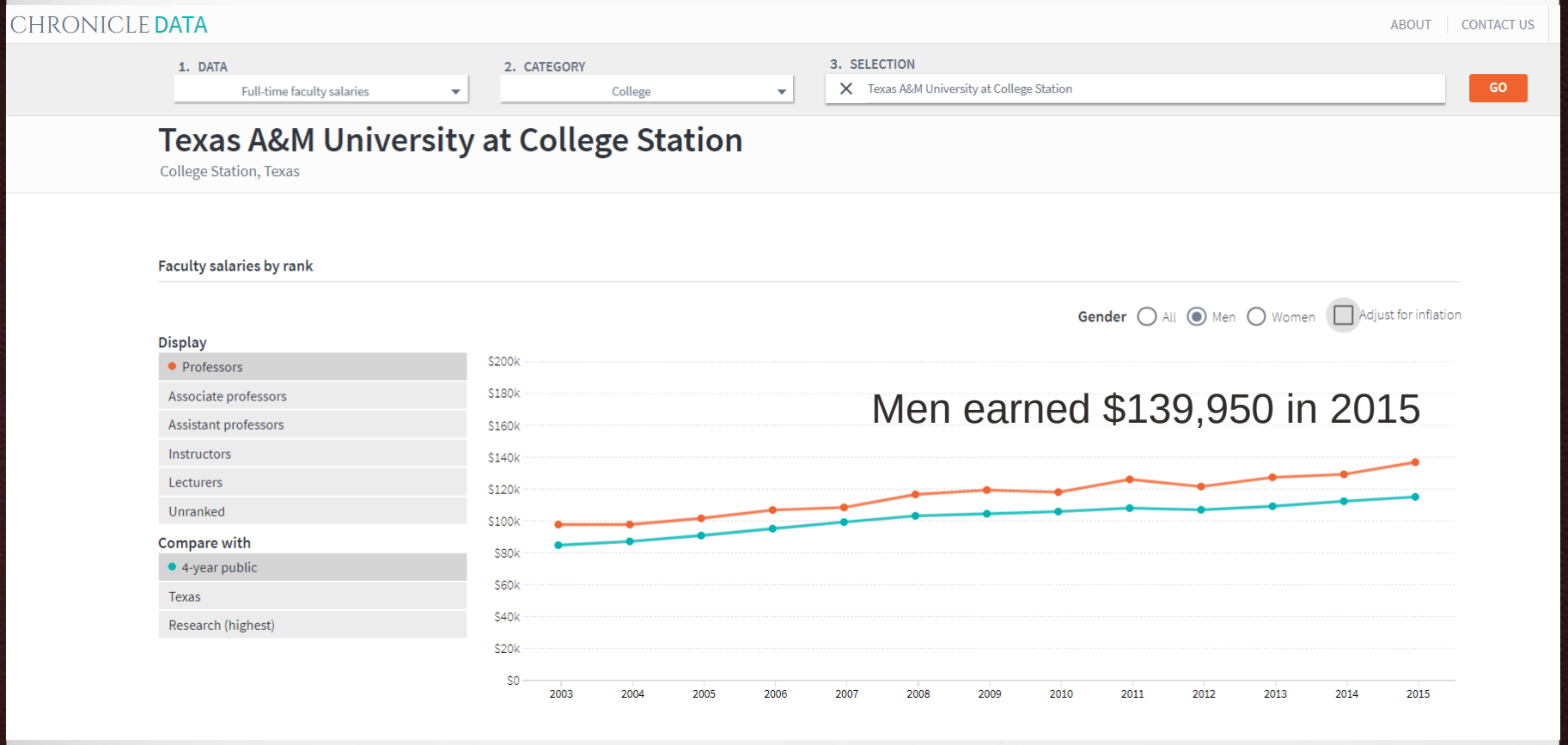
~22 years later…

- Tenured Associate Professor
- Tenured Full Professor



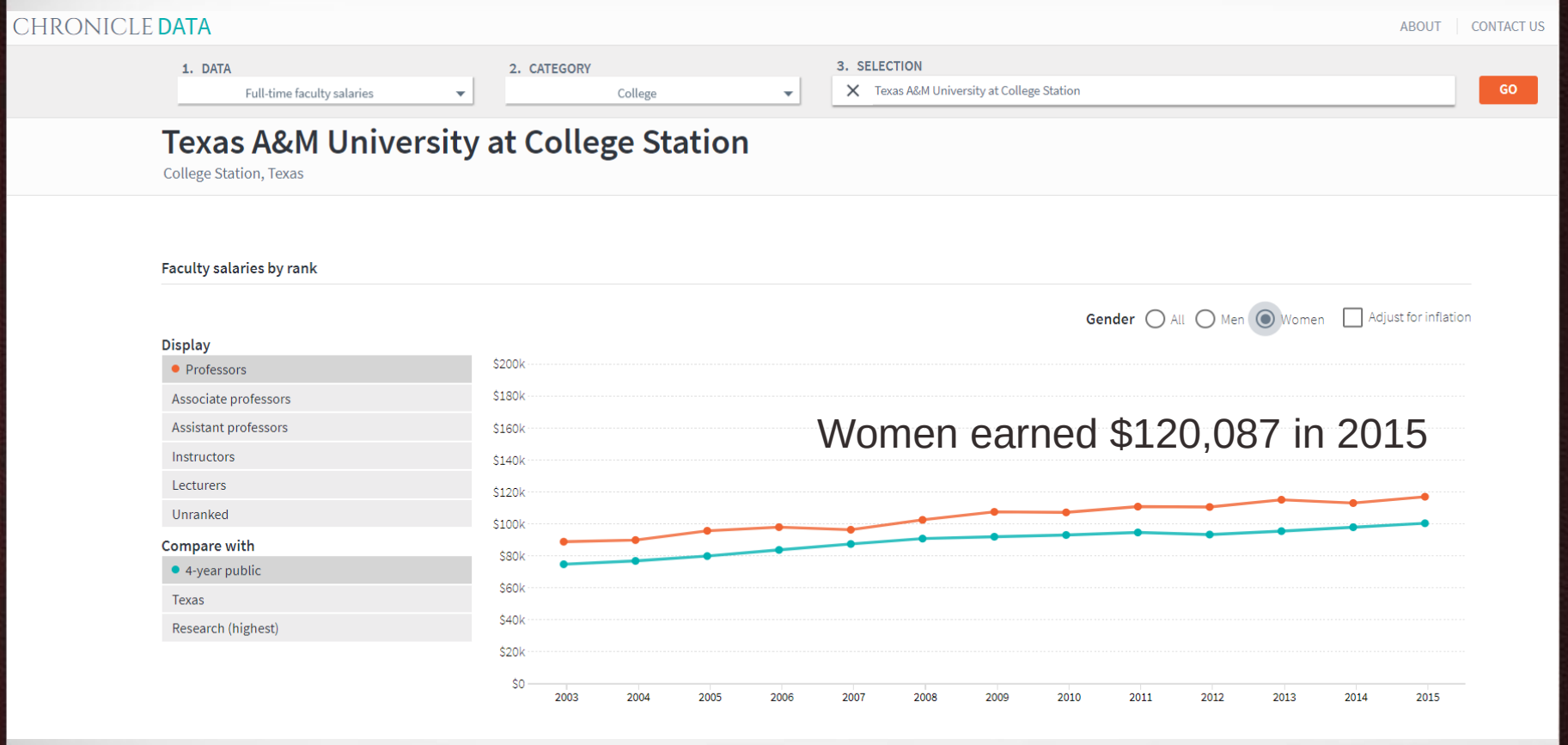
https://www.zerohedge.com/sites/default/files/images/user3303/imageroot/2013/08/20130814_loans1.jpg

Average Full-time Professor Salaries



Source = https://data.chronicle.com/228723/Texas-A-and-M-University-at-College-Station/faculty-salaries/

Average Full-time Professor Salaries



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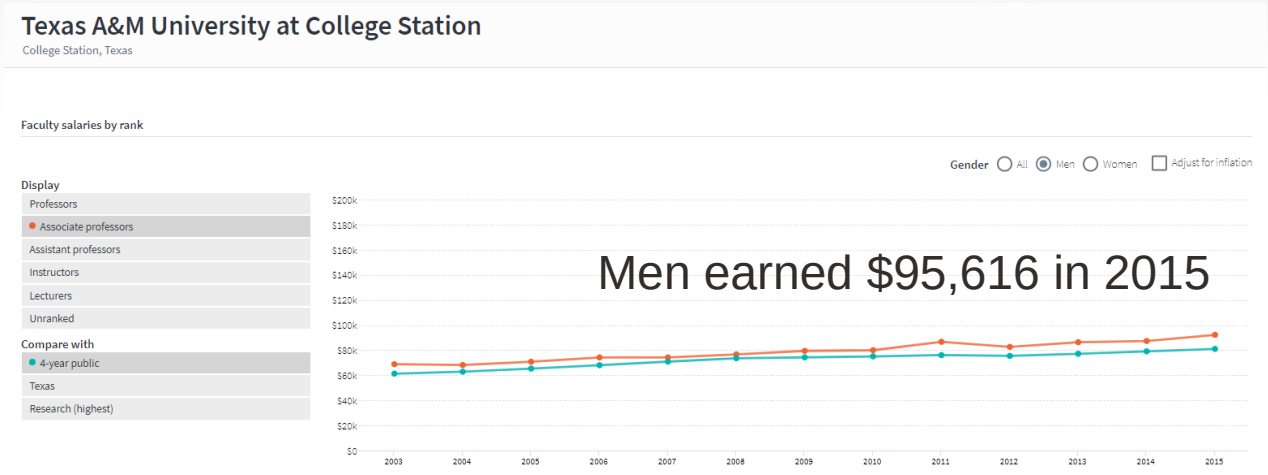
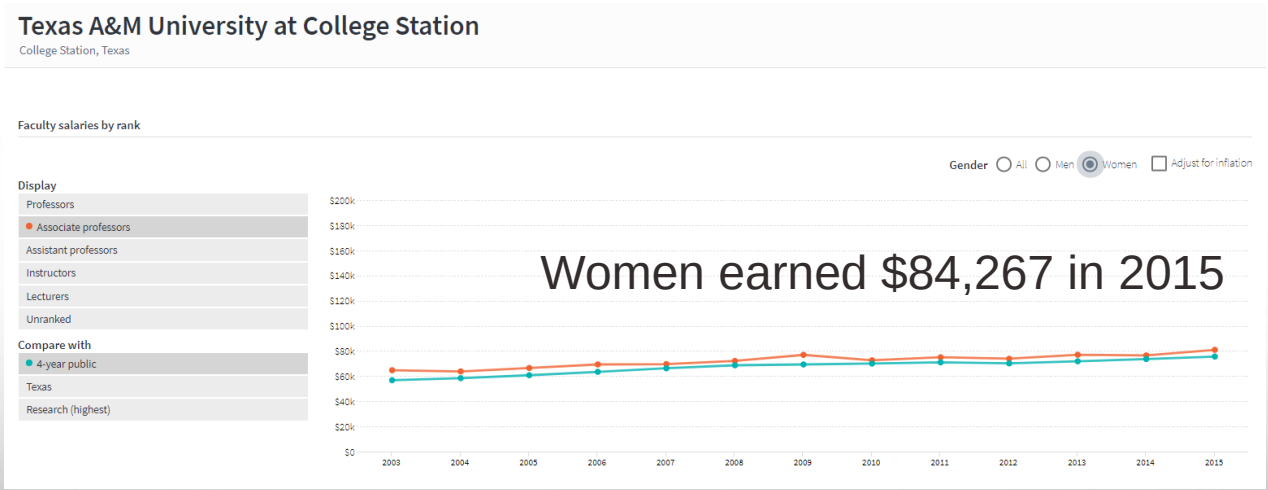
Average Associate Professor Salaries





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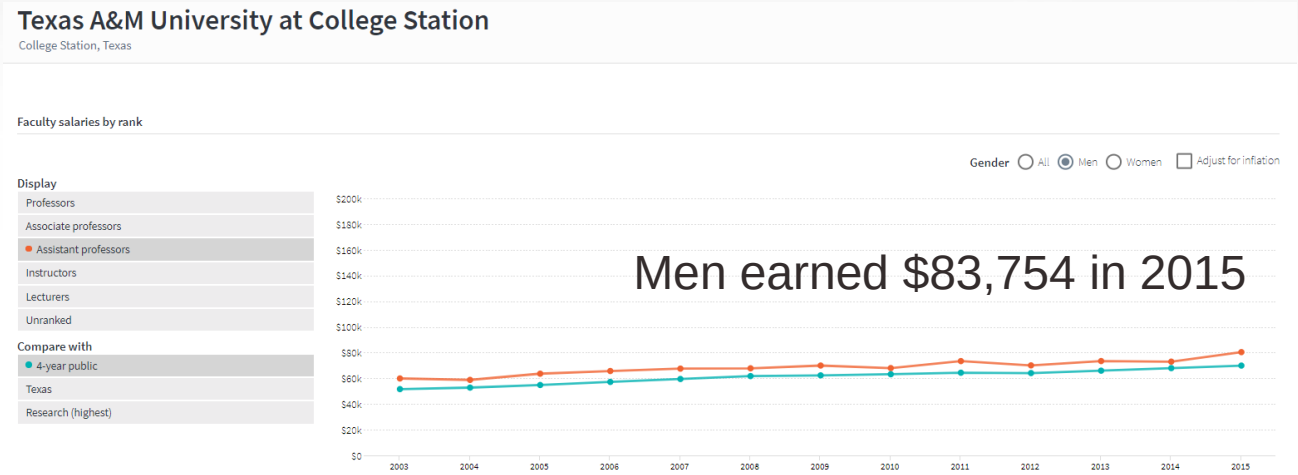
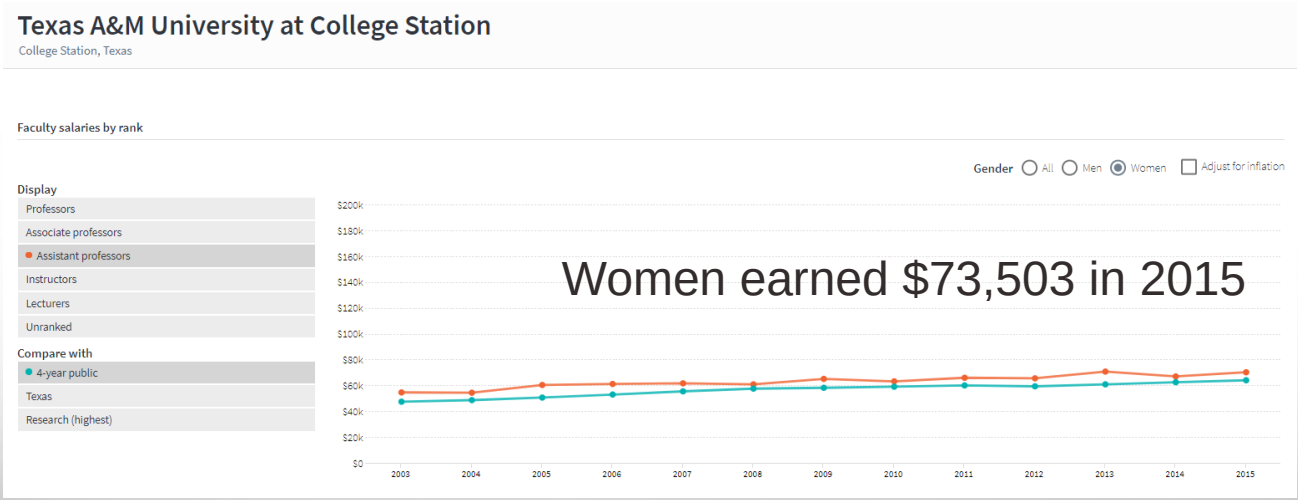
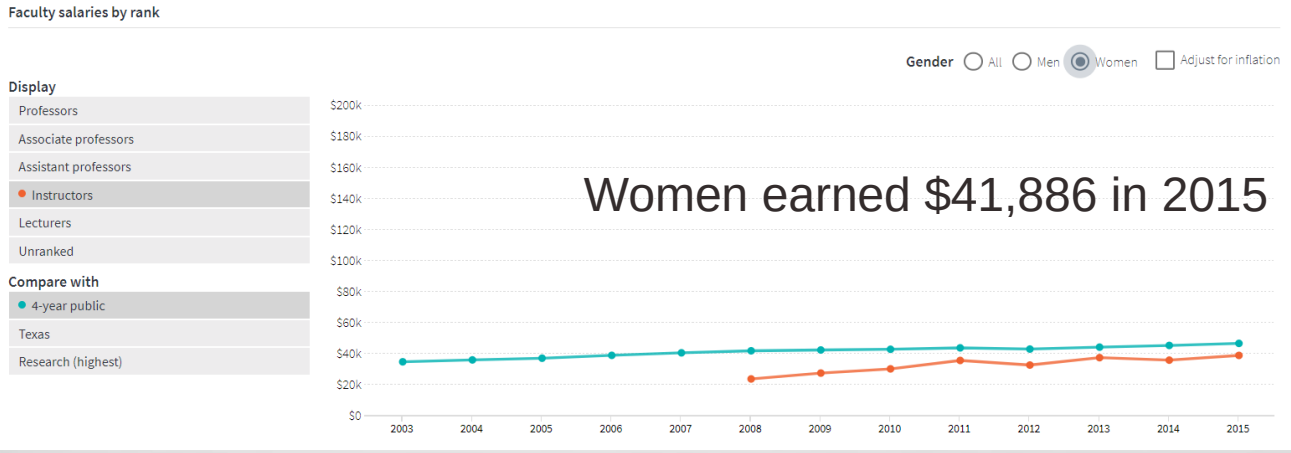
Average Assistant Professor Salaries





Source = https://data.chronicle.com/228723/Texas-A-and-M-University-at-College-Station/faculty-salaries/

Average Full-time Instructor Salaries



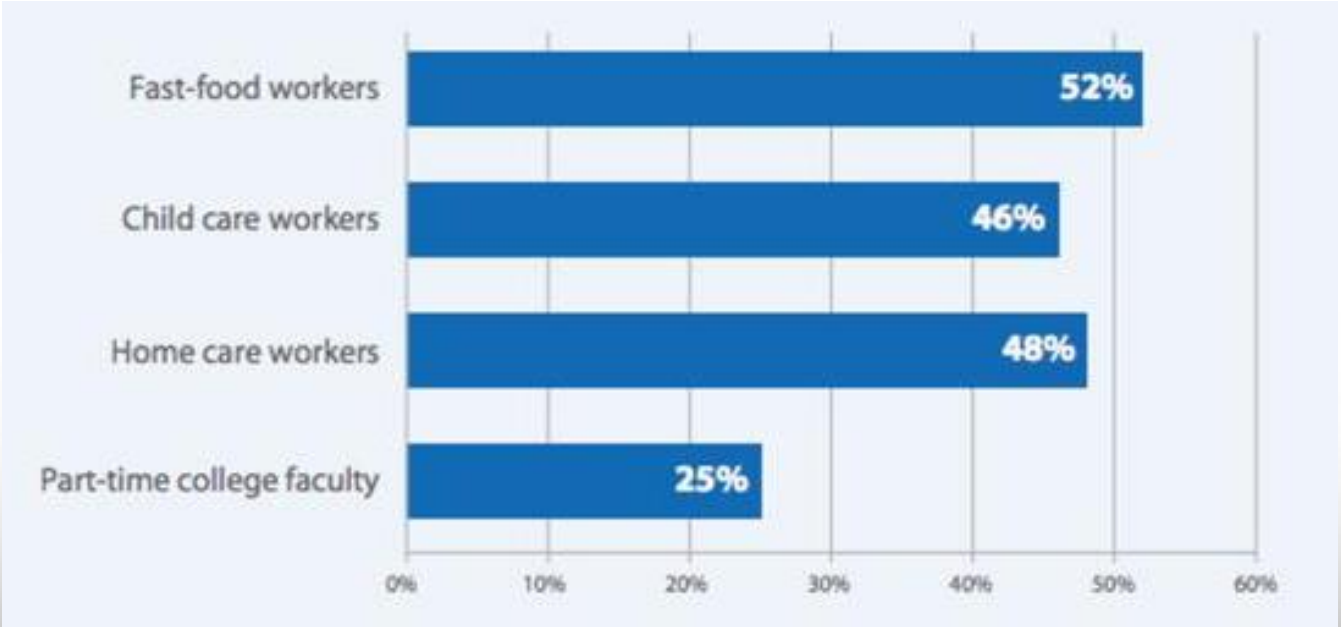
Source = https://data.chronicle.com/228723/Texas-A-and-M-University-at-College-Station/faculty-salaries/

Average Full-time Lecturer Salaries

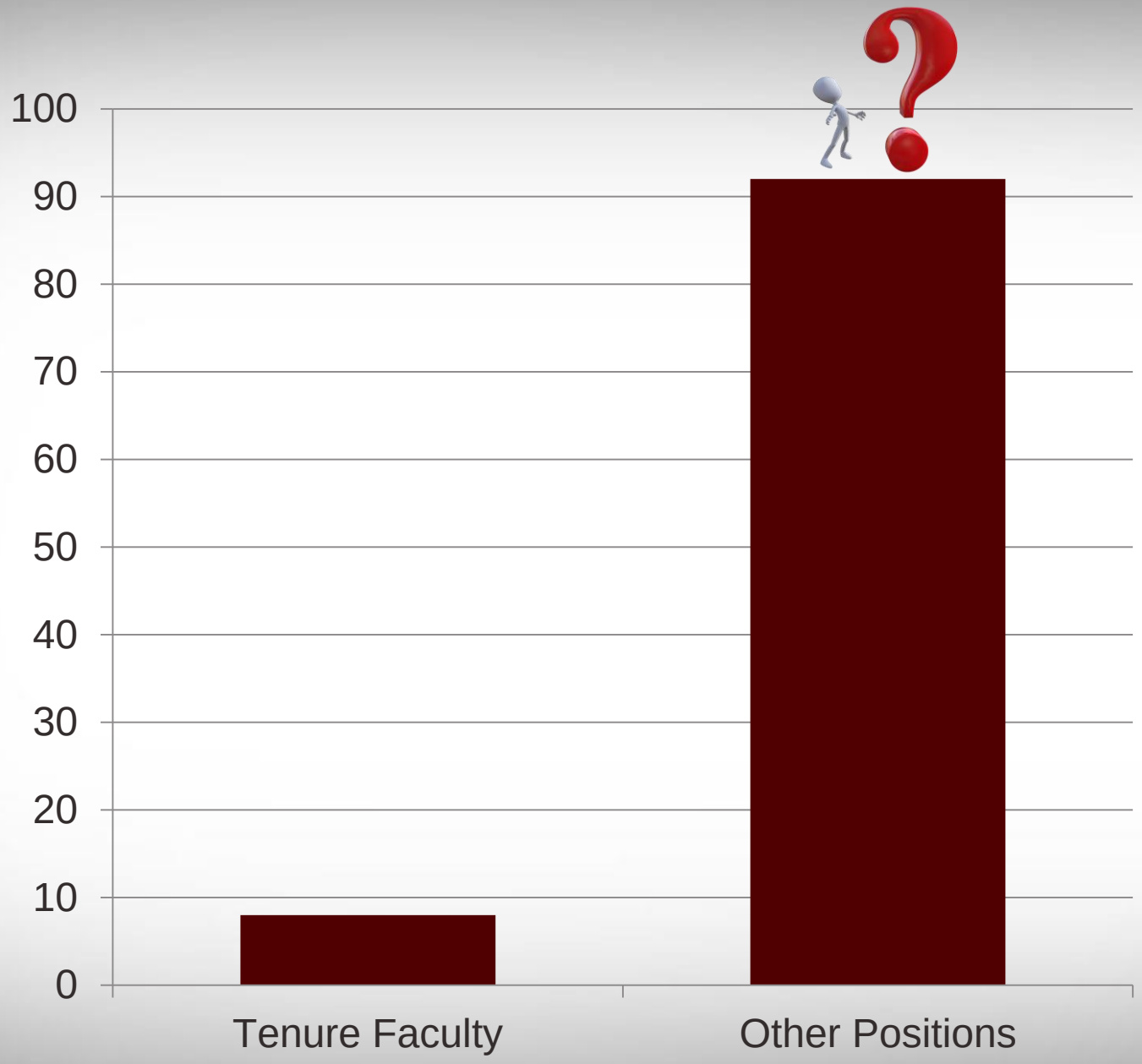
Source = https://data.chronicle.com/228723/Texas-A-and-M-University-at-College-Station/faculty-salaries/

Adjunct and Part-Time Faculty

- Adjunct faculty earn ~$2,000 per course
- 25% of part-time college faculty and their families are enrolled in at least one public assistance program



Source = http://laborcenter.berkeley.edu/pdf/2015/the-high-public-cost-of-low-wages.pdf


100
90
80
70
60
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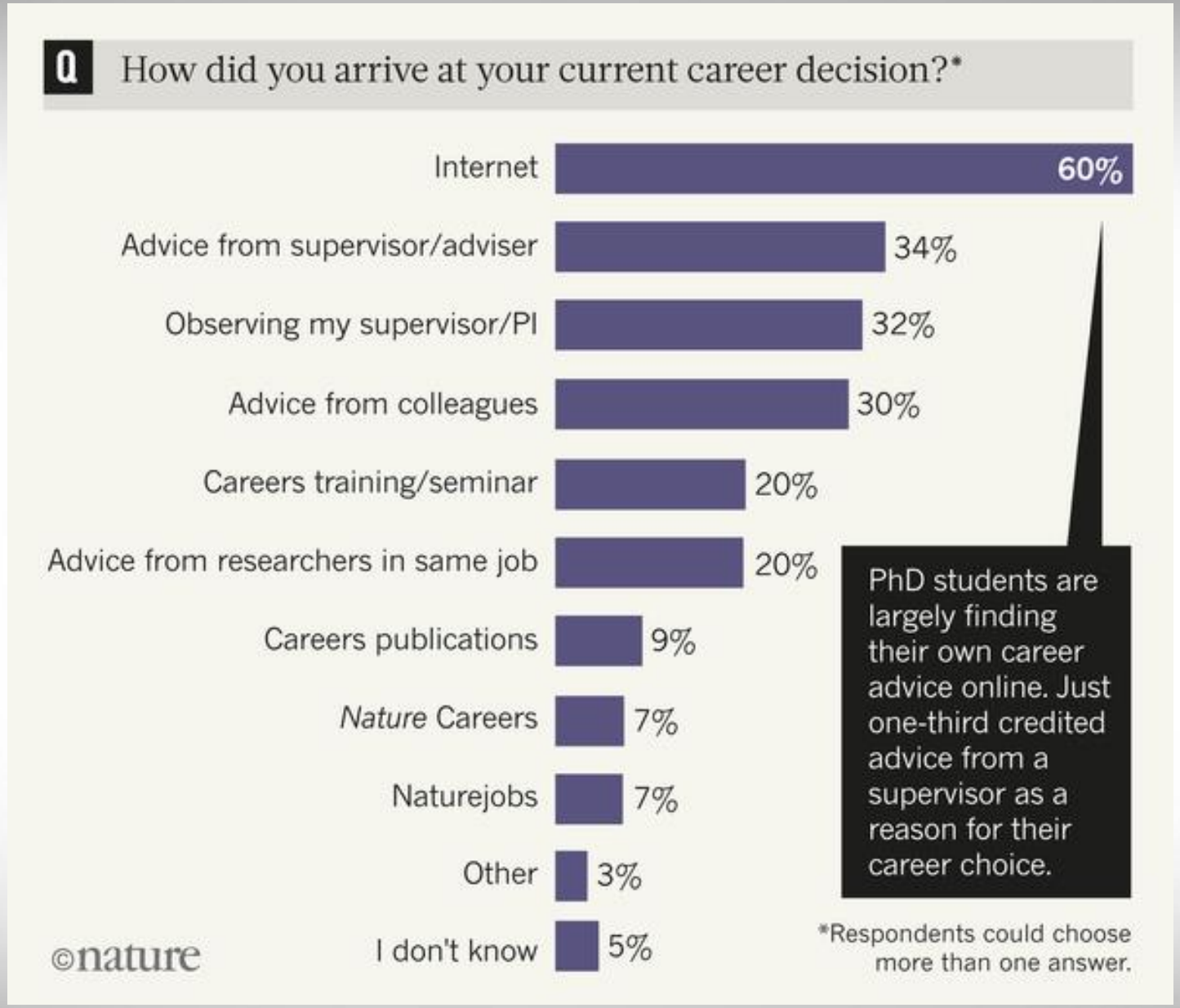
40
30
20
10
0
Tenure Faculty
Other Positions

Close to PhD (KNOWN)

- **Academic Research** (universities, research institutes, hospitals, government)
- **Research in Industry/Business** (Biotechnology, Pharma, Contract Research Organisations (CROs), agricultural companies, bioindustry, food technology, medical industry, policy think tanks, media)
- **Scientific services** (diagnostics, advisory, clinical, specialist industries)
- **Associated commercial careers** (technology transfer, patent agent, data management, regulatory affairs, marketing)
- **Communication** (publishing – editorial, commissioning, production - press officer, journalist, outreach, medical writer)
- **Teaching** (university, schools)
- **Administrative/Policy work**
- **Self Employment/Freelance consultancy work**
- **Something completely different** - Finance, project mgt, electrician

Far way from PhD (UNKNOWN)

Source = http://biosciencecareers.org/wp-content/uploads/2015/04/list-of-jobs.jpg



Source = https://www.nature.com/naturejobs/science/articles/10.1038/nj7677-549a

Non-Academic Jobs

- Non-academic jobs are not all the same, but they can offer many of the same qualities that you enjoy about academia
  - Working with top leaders in your field
  - Research projects using the latest techniques
  - Open publications and scientific presentations
  - Participation in scientific conferences and workshops
  - Teaching (clients rather than university students)
  - Public outreach

Making a Decision

Be brave and try something new. It doesn't have to be permanent!

- It's valuable to identify what is most important to your own professional and personal life
- Select a career path reflecting those priorities
- Be grateful to your employer, but respectfully know what you want when negotiating for the position and subsequent promotions
  - E.g., base salary, bonuses, job title, office space, vacation, staff support, lab space/equipment, computational resources, flexible work hours, pre-approval to pursue specific projects or funding sources
- It may be easier to identify what you ***don't*** want to do! Go with that. ☺

Consulting Careers

- Communicating, teaching, and working with others
- Keeping up with the latest research
- Meeting hard deadlines with clear deliverables
- Seeing my work have a tangible impact
- Distilling lots of complex information into key points
- Working on diverse projects
- Being self-motivated to learn new things
- Traveling as often as required
- Being fairly compensated for my work

Consulting as an Individual

- Pro: Independence
  - Keep more of your hourly earnings
  - Define your own brand
  - Control your own schedule
- Con: You're on your own
  - Find your own clients
  - Provide your own resources
  - Manage taxes, insurance, retirement, legal paperwork

Working at a Consulting Firm

- Pro: Many resources are available
  - Pre-existing contracts and client relationships
  - Funds for IR&D, travel to conferences, non-project focused labor hours (e.g., marketing)
  - Professional development training
  - Marketing and business development assistance
- Con: You must be a team player
  - You will keep a smaller % of your hourly earnings
  - Sometimes you may have to do work you don't enjoy
  - Old inefficient systems may be difficult to change
  - You may not have control over your schedule

Large Consulting Firms

- Pro: More internal job options
  - You have a better chance of doing one thing full time
  - More resources and clients may be available to you
- Con: Less flexibility
  - If you don’t gain additional skills or expertise, you will become less marketable if/when there’s less demand for that one thing you always did
  - A large firm may be less willing to partner with external collaborators, which can limit the talent pool considerably
- Some universities also have consulting services
  - Statistics, bioinformatics, grant writing, etc.

Small Consulting Firms

- Pro: You will gain experience in all areas
  - You will do a little bit of everything!
- Con: You will be expected to work in all areas
  - You will do a little bit of everything!
- I work for a relatively small firm (< 200 employees) that's a subsidiary of the Southwest Research Institute (~2,800 employees)

Contract Research Organizations

- More research focused
- Generally perform clinical science work

Strategy Firms

- More business focused
- MBA or PMP can be helpful

BAIN & COMPANY

McKinsey&Company

Booz | Allen | Hamilton

strategy and technology consultants

BCG

THE BOSTON CONSULTING GROUP

My Typical Job Activities

- Travel to attend meetings with current or future clients, colleagues, and collaborators
- Manage current project teams and deliverables
  - Each project is assigned a PI and PM
  - Execute tasks from a specific statement of work
    - Compile technical reports for clients
    - Find solutions to problems
    - Provide instruction on advanced biology topics
- Find new business opportunities
  - Form teams, write proposals, talk to new potential clients
- Lots and lots of correspondence!
  - Emails, phone calls, teleconferences…

Preparing to be a Consultant

- Network with people! It gets easier the more you do it.
  - Get business cards for yourself, introduce yourself to others at meetings, join scientific social media, talk with science reporters
  - Facilitate communication between collaborators
- Be involved in writing proposals and grants
- Make the most of teaching opportunities
- Practice your business skills on current research projects
  - Outline experimental designs, create timelines and deliverables, track budgets, and develop risk mitigation plans
  - Take every opportunity to clearly and concisely communicate your research findings to anyone who would like to listen
- Cultivate good professional business habits

Please feel free to contact me with questions, and best wishes with your future careers!

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