You are earning your BS in physics – What comes next?

February 2021
UW Physics UG Career Panel
Host: Prof. Marjorie Olmstead

Statistics, Graphs, Ideas from spsnational.org/career-resources
Job vs More School?

- UW Physics BS Past 4 years: After graduation, what is the probability that any of these choices will be your main activity?

- TODAY
  - Work Full Time
  - Work Part Time

- November talk
  - Grad School Physics
  - Grad School Engineering
  - Grad School other Science
  - Travel/Take Time Off
  - Professional School
  - Acquire Teaching Certificate
  - Military Service
  - Peace Corp/TFA/etc

- [Probability Distribution Chart]
  - 100%
  - 80-99%
  - 60-80%
  - 40-60%
  - 20-40%
  - 1-20%
  - 0%
Don’t Panic: There is a job out there for you

• What can you imagine yourself doing?
  – What skills do you enjoy using? What tasks do you enjoy doing?
  – What drives you up the wall?
  – What are your strengths? Weaknesses?

• Where can you get paid for what you enjoy doing?
  – Research those places – not just the current openings
  – Determine the requirements for your long-term dream job(s), and set about acquiring those qualifications in the next few years

• How do I prepare to market myself to these places?
  – Create one or more resume/CV/Cover letter
  – Curate your online presence
  – Prepare your “elevator pitch” (oral and email) at various levels
  – NETWORK: Get to know people who can recommend you
Physics jobs span the economy

Initial Employment Sectors of New Physics Bachelors, Classes of 2017 & 2018 Combined

- 48% Employed
- 28% Phys/Astro grad school
- 10% Engineering grad school
- 9% other schooling
- 5% Unemployed

aip.org/statistics
Private Sector Job Areas – 1 Yr Post B.S.

Field of Employment for New Physics Bachelors in the Private Sector, Classes of 2017 & 2018 Combined

- Engineering: 38%
- Computer or Information Systems: 26%
- Non-STEM, Regularly Solves Technical Problems: 16%
- Other STEM: 12%
- 3% Physics/Astro

5% Do not solve technical problems at least monthly

About 2/3 in Engineering, Computing, Information

aip.org/statistics
Typical Job Skills Utilized

Knowledge and Skills Used by New Physics Bachelors Employed in the Private Sector, Classes of 2017 & 2018 Combined

- Solve Technical Problems
- Work on a Team
- Technical Writing
- Quality Control
- Design/Development
- Use Specialized Equipment
- Manage Projects
- Knowledge of Physics/Astro
- Programming
- Simulation/Modeling
- Work with Clients
- Advanced Math
- Manage People
- Manage Budgets

Percentages represent the physics bachelors who choose "daily", "weekly", or "monthly" on a four point scale that also included "never or rarely".
Note that factors other than $$ are also important: benefits, vacation, work environment, hours.
Who hires physics bachelor’s?

- Washington Employers that recently hired new physics bachelor recipients (2014-2018 data)

[https://www.aip.org/statistics/washington](https://www.aip.org/statistics/washington)

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## Typical Job Titles 1 yr Post B.S.

### Engineering
- Systems Engineer
- Electrical Engineer
- Design Engineer
- Mechanical Engineer
- Project Engineer
- Optical Engineer
- Manufacturing Engineer
- Manufacturing Technician
- Laser Engineer
- Associate Engineer
- Technical Services Engineer
- Application Engineer
- Development Engineer
- Engineering Technician
- Field Engineer
- Process Engineer
- Process Technician
- Product Engineer
- Product Manager
- Research Engineer
- Test Engineer
- General Engineer

### Research & Technical
- Research Assistant
- Research Associate
- Research Technician
- Lab Technician
- Lab Assistant
- Accelerator Operator
- Physical Sciences Technician

### Computer Hardware / Software
- Software Engineer
- Programmer
- Web Developer
- IT Consultant
- Systems Analyst
- Technical Support Staff
- Analyst

### Education
- High School Physics Teacher
- High School Science Teacher
- Middle School Science Teacher
- Substitute Science Teacher
Society of Physics Students Career Resources

- [https://www.spsnational.org/career-resources](https://www.spsnational.org/career-resources)
- Careers Toolbox
- Webinars –
  - I’m About to Graduate: What on Earth Do I Do Now?
  - The Interview: What you need to do before, during and after to get the job
  - Network Yourself to a Great Career
- Resume advice
- Interview advice
- Networking advice
- SPS Jobs (place to upload your resume, view postings)
What resources are available for my job search?

• American Physical Society Careers Page  

• Society of Physics Students Careers Page  
  – [https://www.spsnational.org/career-resources](https://www.spsnational.org/career-resources)

• AAAS (Science Magazine) Career Resources  
  – [http://www.sciencemag.org/careers/career-resources](http://www.sciencemag.org/careers/career-resources)

• UW Career and Internship Center  

• Faculty, Alumni, others in area  
  – Today’s Career Panel
2021 Career Panel

• **Dan Poux**, UW Career and Internship Center

• **Ned Nestorovic [UW '88]**
  President and Chief Optical Engineer at Seattle Photonics

• **Ryan McCauley [UW '18]**
  High School Teacher in Hawaii

• **Samir Yhann [UW '19]**
  Engineer at Pathware, Inc, a medical device start-up

• **Ali Hasanzadeh [UW '20]**
  Acoustic Engineer for Echonous, Inc.