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

- March 30, 2022
- UW Physics UG Career Panel
- Host: Prof. Marjorie Olmstead

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

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

From UW physics senior exit survey AY 21 & 22 (N=386):
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 – tailor to the job
  – 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

46% Employed
29% Phys/Astro grad school
10% Engineering grad school
9% Other schooling
6% Unemployed
Private Sector Job Areas – 1 Yr Post B.S.

National Data from classes of 2019 & 2020

Field of Employment for New Physics Bachelors in the Private Sector, Classes of 2019 & 2020 Combined

- 35% Engineering
- 24% Computer Software
- 14% Non-STEM, Regularly Solves Technical Problems
- 8% Other STEM
- 15%
- 4% Physics/Astro

8% Do not solve technical problems at least monthly

About 3/5 in Engineering, Computing, Information

STEM refers to natural science, technology, engineering and mathematics. Regularly solving technical problems refers to respondents who selected “Daily”, “Weekly”, or “Monthly” on a four-point scale that also included “Rarely or Never”.

www.aip.org/statistics
### 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

Data from American Institute of Physics (aip.org/statistics)
Job Skills Used by Physics B.S. 1 year out

National Data from classes of 2019 & 2020

- Work on a Team
- Solve Technical Problems
- Technical Writing
- Design/Development
- Quality Control

Knowledge of Phys or Astro
- Use Specialized Equip.
- Programming
- Manage Projects
- Work with Clients

Advanced Math
- Simulation or Modeling
- 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".

RESEARCH EXPERIENCE GETS YOU ALL OF THESE SKILLS!!
Starting Salaries for Physics B.S. (2019-20)

<table>
<thead>
<tr>
<th>Sector of Employment</th>
<th>Salaries (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Sector STEM</td>
<td>$0</td>
</tr>
<tr>
<td>Private Sector non-STEM, Solves Technical Problems</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
</tr>
<tr>
<td>Private Sector non-STEM, Rarely Solves Technical Problems</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
</tr>
<tr>
<td>Civilian Government (incl. Nat. Labs)</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
</tr>
<tr>
<td>High School Teachers</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
</tr>
<tr>
<td>Active Military</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
</tr>
<tr>
<td>College or University</td>
<td>$20k $40k $60k $80k $100k $120k $140k $160k $180k</td>
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<tr>
<td>Company Name</td>
<td>Company Name</td>
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<tr>
<td>Bluetooth SIG, Inc.</td>
<td>Fatigue Technology Inc.</td>
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<tr>
<td>Access Laser Company</td>
<td>Filter, LLC</td>
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<tr>
<td>AeroTEC</td>
<td>Fred Hutchinson Cancer Res Ctr</td>
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<tr>
<td>Aerotek</td>
<td>Fremont Analytical Inc.</td>
</tr>
<tr>
<td>Allen Inst for Brain Science</td>
<td>Garco Construction</td>
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<tr>
<td>Alphabet inc.</td>
<td>Google</td>
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<tr>
<td>ALS Global</td>
<td>IHME</td>
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<tr>
<td>Amazon</td>
<td>Inst for Environmental Health.</td>
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<tr>
<td>Amazon Web Services</td>
<td>Inst for Health Metrics and Eval.</td>
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<tr>
<td>Applied Motion Systems</td>
<td>Intellectual Ventures</td>
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<tr>
<td>Assemble Inc</td>
<td>Jacobs</td>
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<tr>
<td>Boeing</td>
<td>Key Technology, Inc</td>
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<tr>
<td>BTownWeb</td>
<td>Launch Consulting LLC</td>
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<tr>
<td>Casaba Security LLC</td>
<td>Lease Crutcher Lewis</td>
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<tr>
<td>CB Technologies Inc.</td>
<td>LevelTen Energy</td>
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<tr>
<td>CDC/NIOSH</td>
<td>Lumotive</td>
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<tr>
<td>Commerce Architects</td>
<td>Manufacturing Technology Inc.</td>
</tr>
<tr>
<td>Department of Defense</td>
<td>MAQ Software</td>
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<tr>
<td>Eagle Harbor Technologies</td>
<td>Microsoft</td>
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<tr>
<td>EASI</td>
<td>Microvision</td>
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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
  – http://www.aps.org/careers/

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

• AAAS (Science Magazine) Career Resources
  – http://www.sciencemag.org/careers

• UW Career and Internship Center
  – http://careers.uw.edu/
  – Today’s Presentation

• Faculty, Alumni, others in area
  – LinkedIn, Neighbors, People on the bus ....
  – Today’s Career Panel
2022 Career Panel

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

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

- **Arielle Leon** [UW ’12]
  System Design Engineer at the Allen Institute for Brain Science

- **Chris Moore** [UW ‘20]
  Staff Engineer at Lumotive

- **Alex Stevens** [UW ‘11]
  Physics Teacher at Issaquah High School.
Links from Dan Poux at Career Services

- [https://careers.uw.edu/schedule-an-appointment-with-a-career-coach/](https://careers.uw.edu/schedule-an-appointment-with-a-career-coach/)

- [https://www.linkedin.com/school/university-of-washington/people/?facetFieldOfStudy=100892](https://www.linkedin.com/school/university-of-washington/people/?facetFieldOfStudy=100892)


- [https://careers.uw.edu/channels/physical-life-sciences/](https://careers.uw.edu/channels/physical-life-sciences/)

- Also – A physics-specific site from the University of Michigan: [https://careercenter.umich.edu/files/cc/physics_cg_0.pdf](https://careercenter.umich.edu/files/cc/physics_cg_0.pdf)