

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

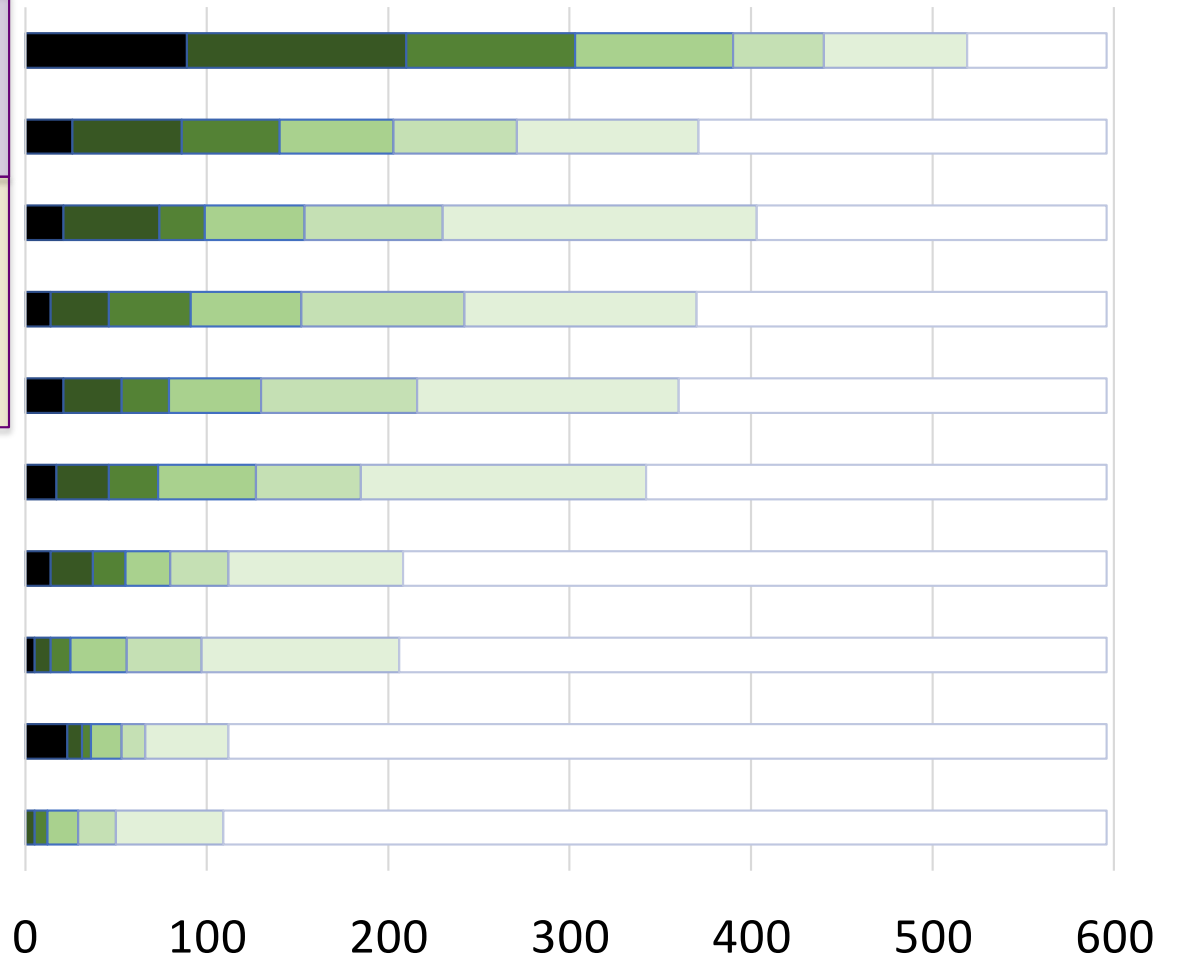
Travel/Take Time Off

Professional School

Acquire Teaching Certificate

Military Service

Peace Corp/TFA/etc



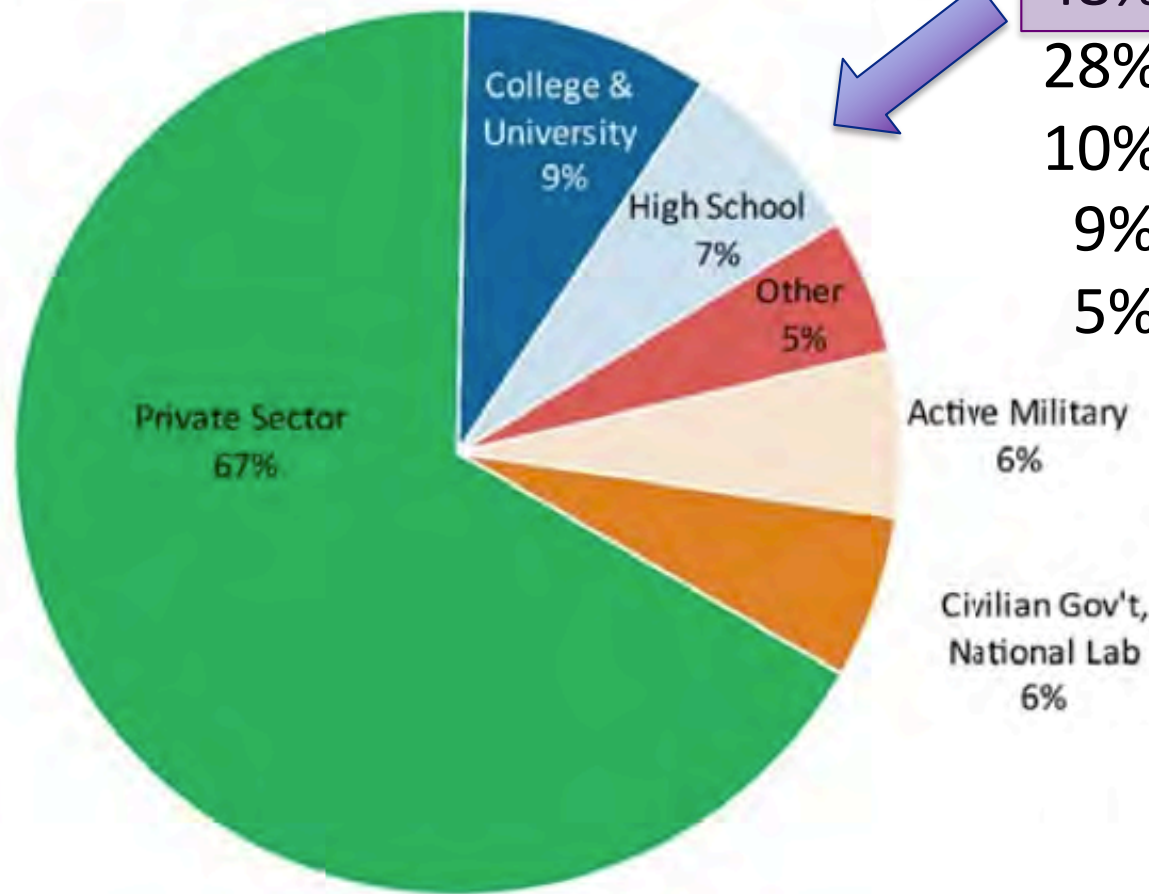
100%
 80-99%
 60-80%
 40-60%
 20-40%
 1-20%
 0%

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

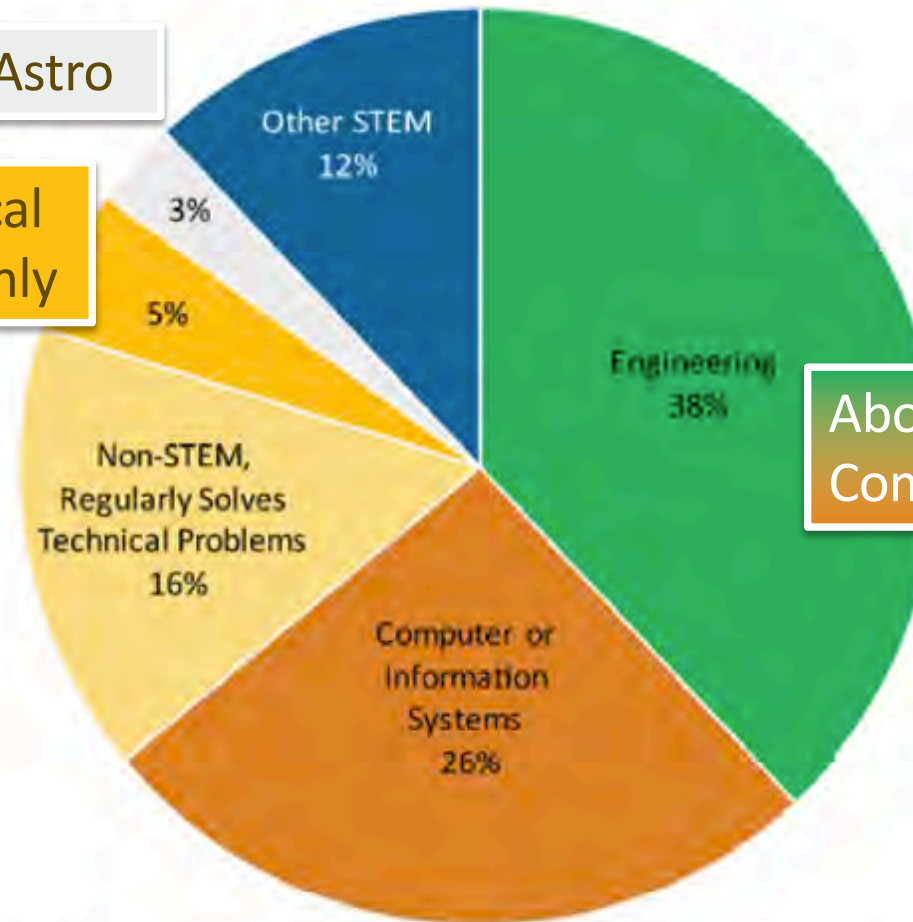
28% Phys/Astro grad school
10% Engineering grad school
9% other schooling
5% Unemployed

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

3% Physics/Astro

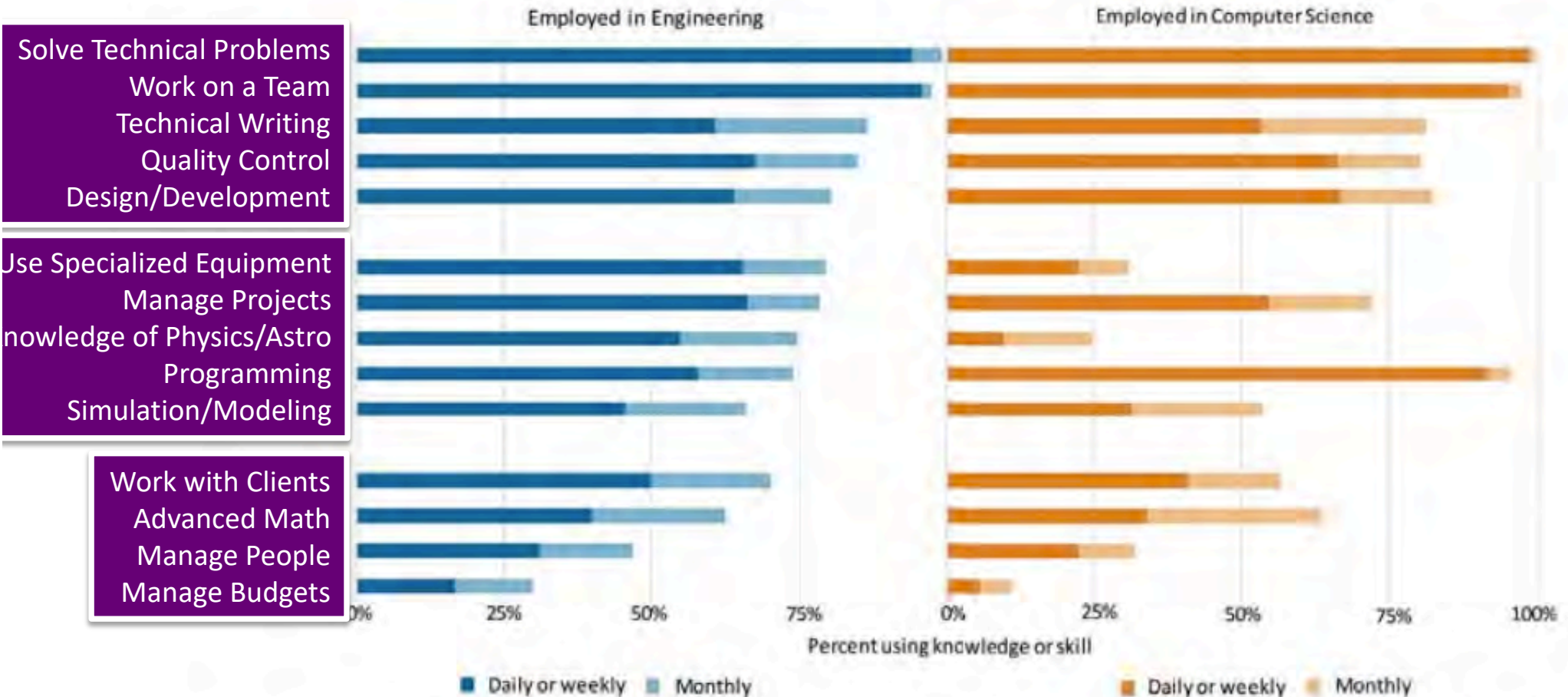
5% Do not solve technical problems at least monthly



About 2/3 in Engineering, Computing, Information

Typical Job Skills Utilized

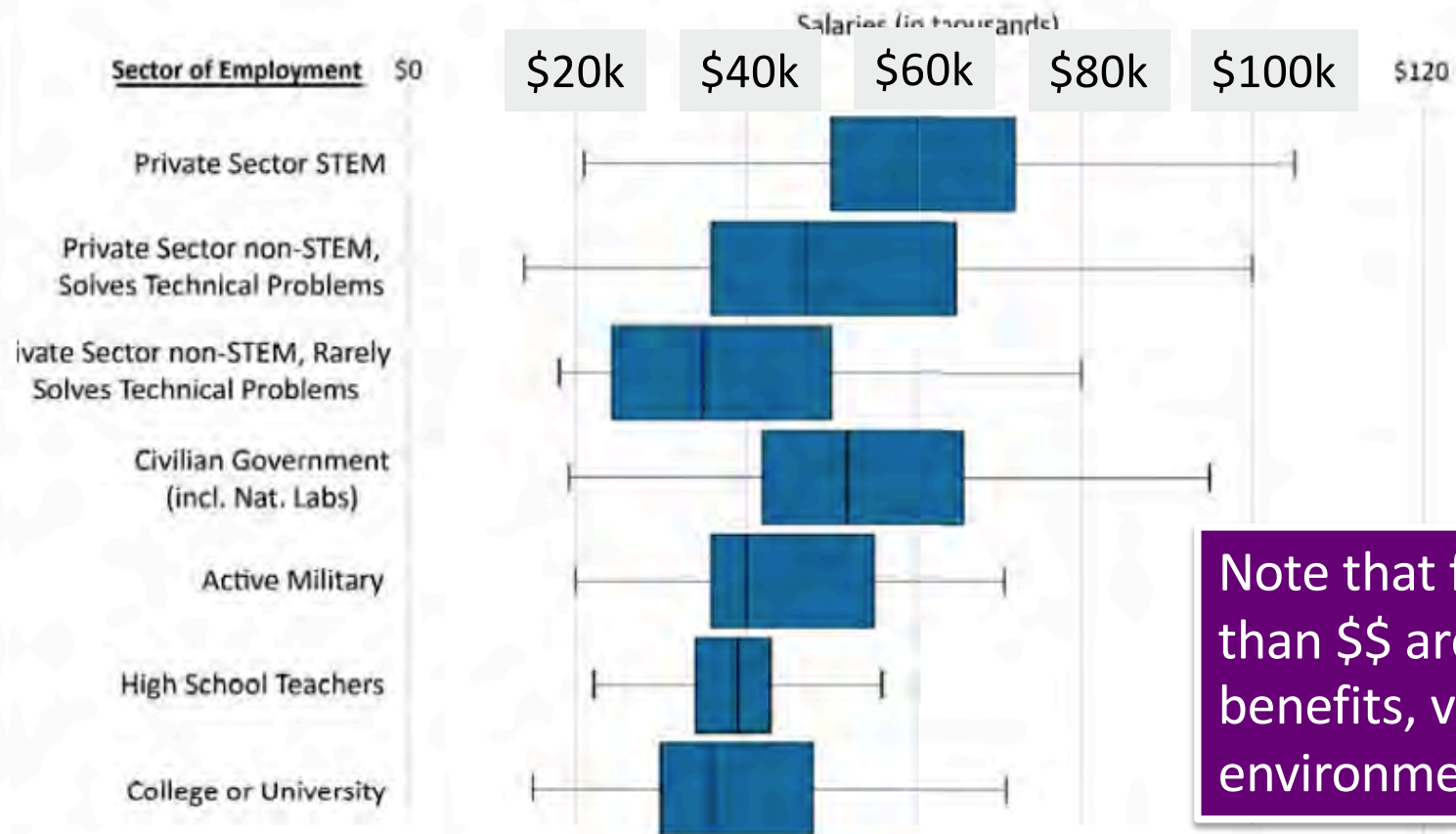
Knowledge and Skills Used by New Physics Bachelors Employed in the Private Sector, Classes of 2017 & 2018 Combined



Percentages represent the physics bachelors who choose "daily", "weekly", or "monthly" on a four point scale that also included "never or rarely".

Typical Starting Salaries

Starting Salaries for New Physics Bachelors, Classes of 2017 & 2018 Combined



Note that factors other than \$\$ are also important: benefits, vacation, work environment, hours

Figure only includes bachelors in full-time, newly accepted positions. The full starting salary range is represented by the lines extending to each side of the box. The box represents the middle 50% (25th to 75th percentile) of the salaries. The vertical line within the box represents the median starting salary for the sector. Solves technical problems refers to respondents who selected "Daily", "Weekly", or "Monthly" on a four-point scale that also included "Rarely or Never" when asked how frequently they solved technical problems in their position.

Who hires physics bachelor's?

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

<https://www.aip.org/statistics/washington>.

AbbVie	Factset		
AeroTEC	Fidelity Investments	Orbital ATK	
Allen Institute for Brain Science	Fred Hutch Cancer Res Ctr	Ozone International	
ALS Global	G.S. Builders	Pacific Northwest National Laboratory	
Amazon	Google	Pellego	TigerStop
Applied Motion Systems	HopeSource	Physio-Control Inc	United States Navy
Areva	HP Inc.	Professional Credit Service	UT Austin
Assemble Inc.	Inst. Defense Analyses	PSC Biotech	UW
Battelle	Inst. Environmental Health	Puget Sound Energy	UtiliQuest
Bluetooth SIG, Inc.	Inst. Health Metrics & Eval.	Radiant Vision Systems	Visiongate
Boeing	Intellectual Ventures	RAFI USA	VL Systems
BTownWeb	Jacobs	Raisbeck Engineering	WA State Dept of Transportation
Carlisle IT - Tri Star	Lease Crutcher Lewis	Randstad	Woodruff Sci. Computing
Casey Products	Leidos	Scribe America	
Chipton Ross	Manufacturing Technology Inc.	Seattle Children's Research Institute	
Corvus and Columba LLC	Marchex, Inc.	Silicon Mechanics	
Dynetics, Inc.	Microsoft	Tableau Software	
Eagle Harbor Technologies, Inc.	Microvision	Tecplot Inc.	
Electroimpact, Inc.	Mott MacDonald	The Boeing Company	

Typical Job Titles 1 yr Post B.S.

Engineering

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

Education

- High School Physics Teacher
- High School Science Teacher
- Middle School Science Teacher
- Substitute Science Teacher

Research & Technical

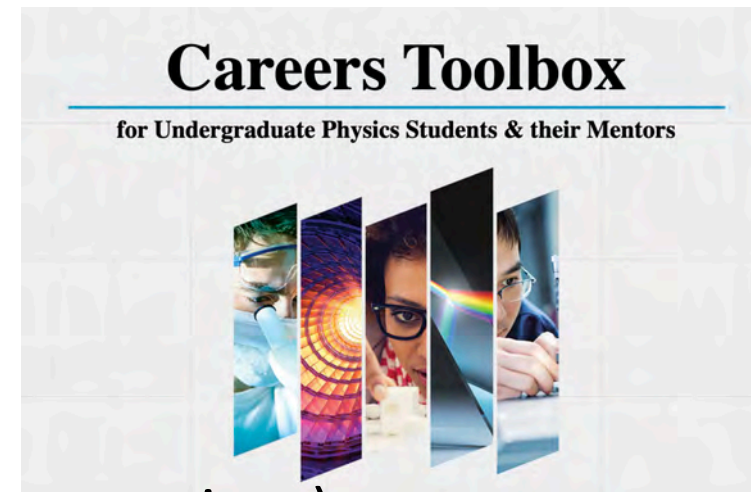
- Research Assistant
- Research Associate
- Research Technician
- Lab Technician
- Lab Assistant
- Accelerator Operator
- Physical Sciences Technician

Computer Hardware / Software

- Software Engineer
- Programmer
- Web Developer
- IT Consultant
- Systems Analyst
- Technical Support Staff
- Analyst

Society of Physics Students 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/career-resources>
- UW Career and Internship Center
 - <http://careers.uw.edu/>
- 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.