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

• March 30, 2022

49TE.

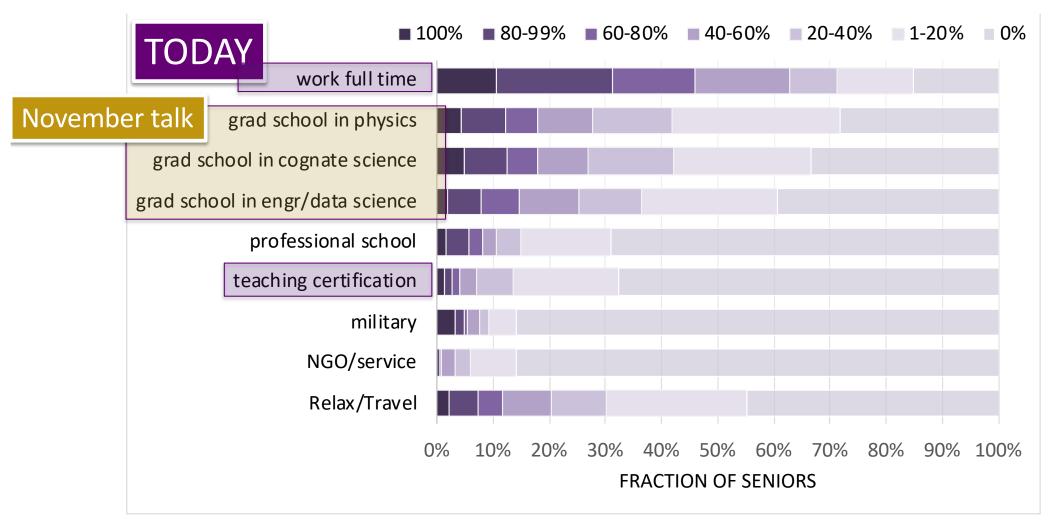
- UW Physics UG Career Panel
- Host: Prof. Marjorie Olmstead

G = 5/2 hw (n=2)



### Job vs More School?

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

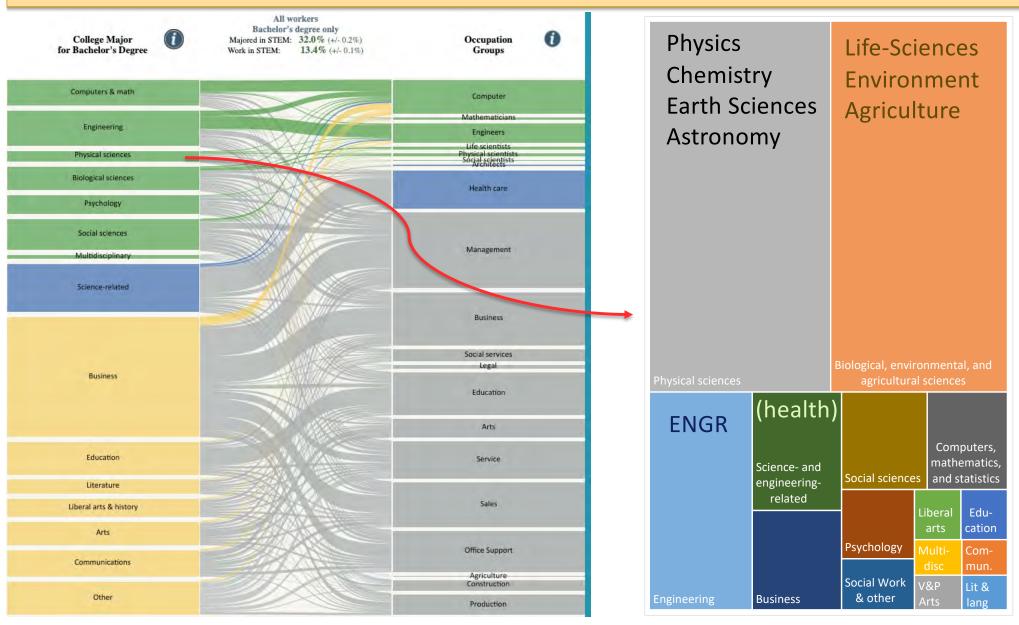


From UW physics senior exit survey AY 21 & 22 (N=386):

# 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

# Degree – Career Relationships



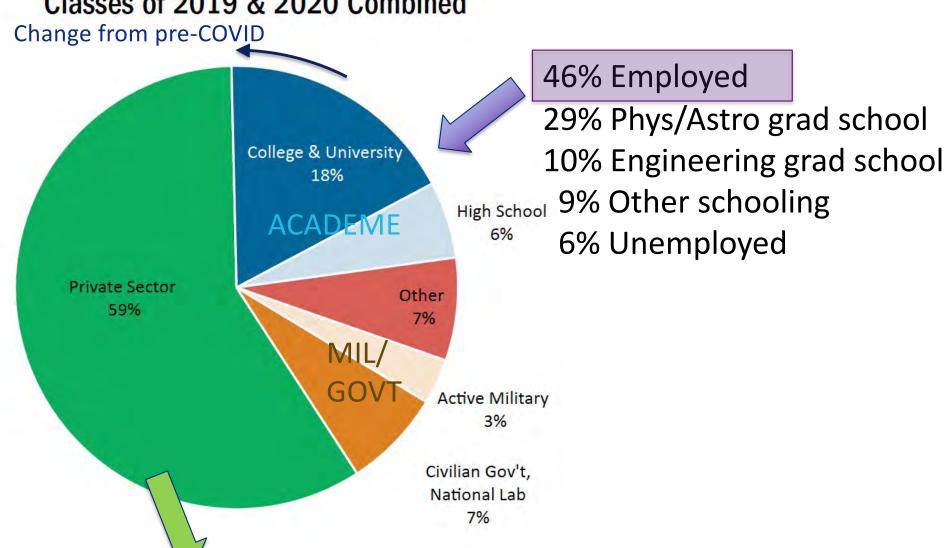
https://www.census.gov/library/stories/2021/06/does-majoring-in-stem-lead-to-stem-job-after-graduation.html

## Physics jobs span the economy

National Data from classes of 2019 & 2020

www.aip.org/statistics

Initial Employment Sectors of New Physics Bachelors, Classes of 2019 & 2020 Combined

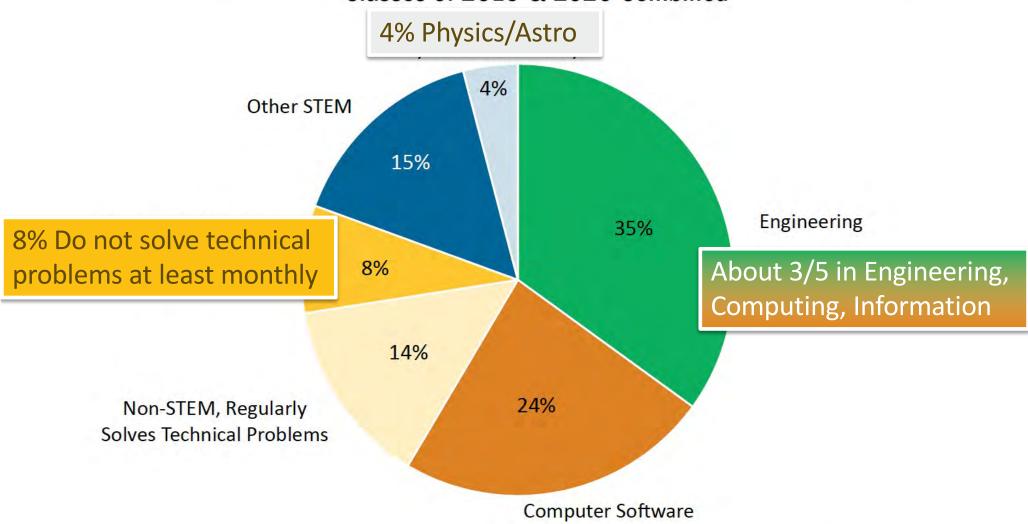


### Private Sector Job Areas – 1 Yr Post B.S.

National Data from classes of 2019 & 2020

www.aip.org/statistics

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



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".

# Typical Job Titles1 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

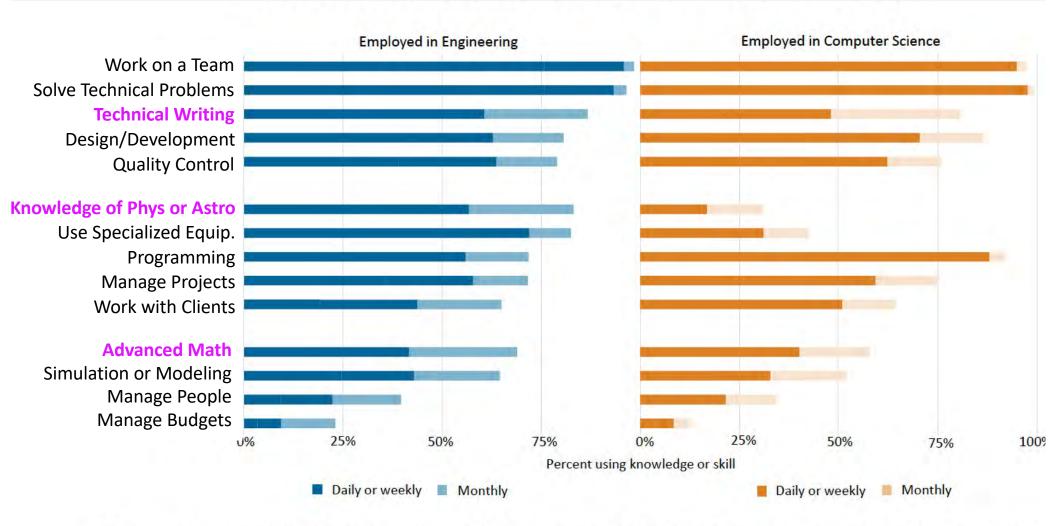
Analyst

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

www.aip.org/statistics



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)

Salaries (in thousands)

Sector of Employment \$0

Private Sector STEM

Private Sector non-STEM, Solves Technical Problems

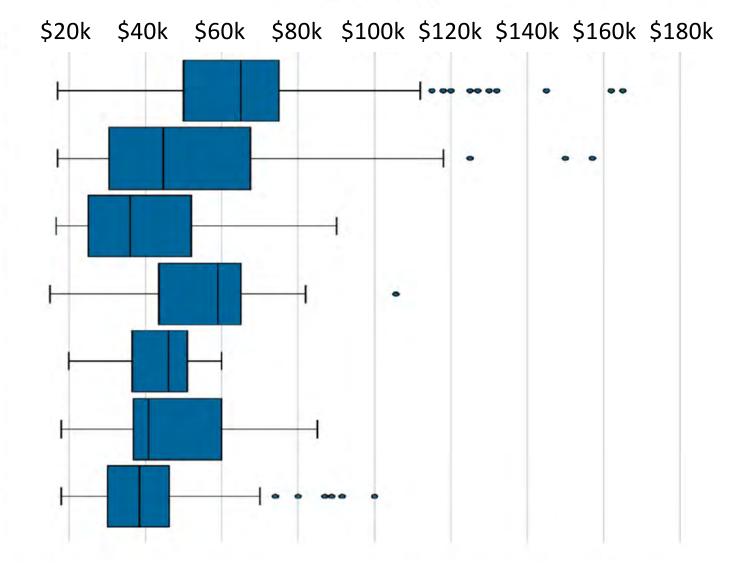
Private Sector non-STEM, Rarely Solves Technical Problems

Civilian Government (incl. Nat. Labs)

**High School Teachers** 

**Active Military** 

College or University



# Who hires physics bachelor's in Washington State?

National Data from classes of 2016 through 2020

www.aip.org/s	statistics
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(not complete)

	Fatigue Technology Inc.	Mighty Al (not complete)
Bluetooth SIG, Inc.	Filter, LLC	MRV Systems, LLC
Access Laser Company	Fred Hutchinson Cancer Res Ctr	nLIGHT, Inc.
AeroTEC		Outreach.io
Aerotek	Fremont Analytical Inc.	Ozone International
Allen Inst for Brain Science	Garco Construction	
Alphabet inc.	Google	Professional Credit Service
ALS Global	IHME	Protingent, Inc.
	Inst for Environmental Health.	Puget Sound Energy
Amazon	Inst for Health Metrics and Eval.	Radiant Vision Systems
Amazon Web Services	Intellectual Ventures	Raisbeck Engineering
Applied Motion Systems		ScribeAmerica
Assemble Inc	Jacobs	Seattle Photonics
Boeing	Key Technology, Inc	Silicon Mechanics
BTownWeb	Launch Consulting LLC	
Casaba Security LLC	Lease Crutcher Lewis	Simpson Engineers, Inc.
CB Technologies Inc.	LevelTen Energy	Starbucks
	Lumotive	Tecace Software
CDC/NIOSH	Manufacturing Technology Inc.	Tecplot Inc.
Commerce Architects		Trinity Consultants
Department of Defense	MAQ Software	University of Washington
Eagle Harbor Technologies	Microsoft	US Navy
EASi	Microvision	,
	_	WA Dept of Transportation

### 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

**Careers Toolbox** 

for Undergraduate Physics Students & their Mentors

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
  - <a href="http://www.aps.org/careers/">http://www.aps.org/careers/</a>
- 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
  - <a href="http://careers.uw.edu/">http://careers.uw.edu/</a>
  - 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-careercoach/
- https://www.linkedin.com/school/university-ofwashington/people/?facetFieldOfStudy=100892
- https://cdn.uconnectlabs.com/wpcontent/uploads/sites/25/2020/06/Informational-Interviews-and-Networking-Light-Blue.pdf
- https://careers.uw.edu/channels/physical-life-sciences/
- Also A physics-specific site from the University of Michigan: <a href="https://careercenter.umich.edu/files/cc/physics\_cg\_0.pdf">https://careercenter.umich.edu/files/cc/physics\_cg\_0.pdf</a>