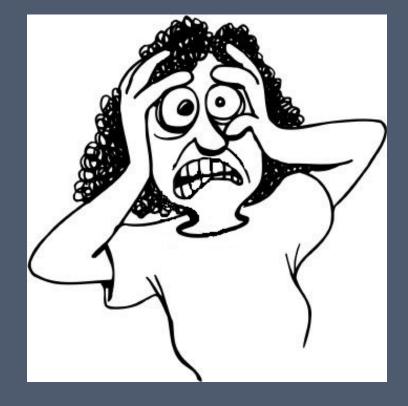
## YOU HAVE OPTIONS!

## preparing for a successful career with your bhysics degree

Dr. Toni Sauncy, Texas Lutheran University

Former Director, Society of Physics Students & Sigma Pi Sigma Physics Honor Society

# WHAT AM I SUPPOSED TO DO WITH MY PHYSICS DEGREE?



## Acknowledgements Project Personnel

#### **Project Investigators**

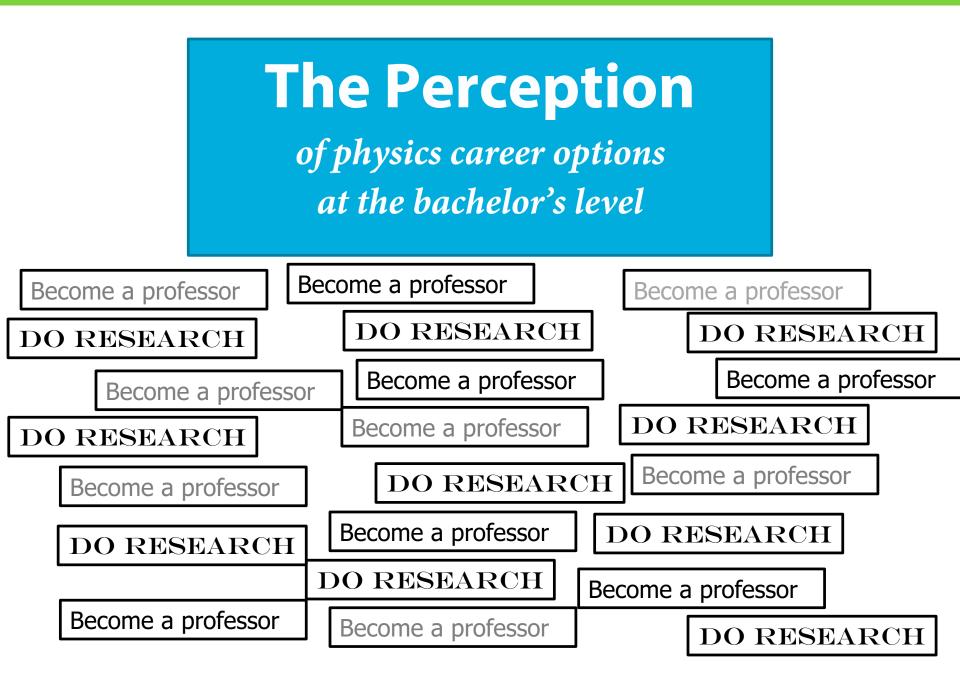
- Thomas Olsen, former Assistant Director Society of Physics Students
- Kendra Redmond, Programs Manager Society of Physics Students
- Roman Czujko, Director AIP Statistical Research Center
- Toni Sauncy, former Director Society of Physics Students and Sigma Pi Sigma
   New Contributions:
- Brad Conrad, Director-SPS and Sigma Pi Sigma
- Kerry Kidwell Slak, Assistant Director SPS and Sigma Pi Sigma

#### **Student Contributors-SPS Summer Interns**

- Amanda Palchak, University of Southern Mississippi(2011)
- Shouvik Bhattacharya, Minnesota State University (2012)
- Jose "Ro" Avila, King College, SPS Summer Intern (2013)



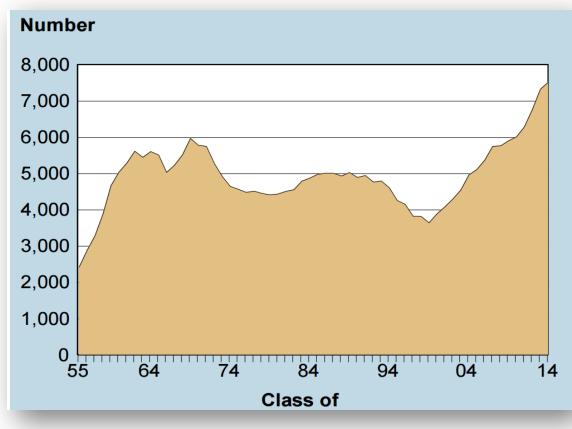
Work supported by the National Science Foundation Project No. 1011829, "Expanding the STEM Workforce by Equipping Physics Bachelors Degree Recipients and their Departments to Address the Full Range of Career Options"



## Data. How many?

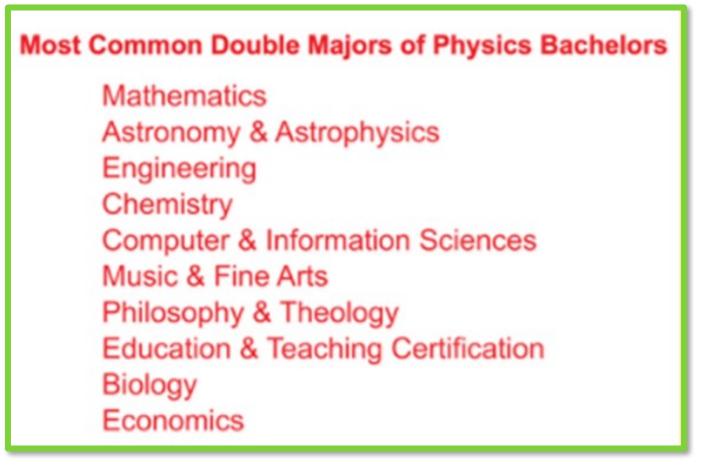
Good news.

Physics bachelor's degree production is on the rise.



### Physics students have broad interests

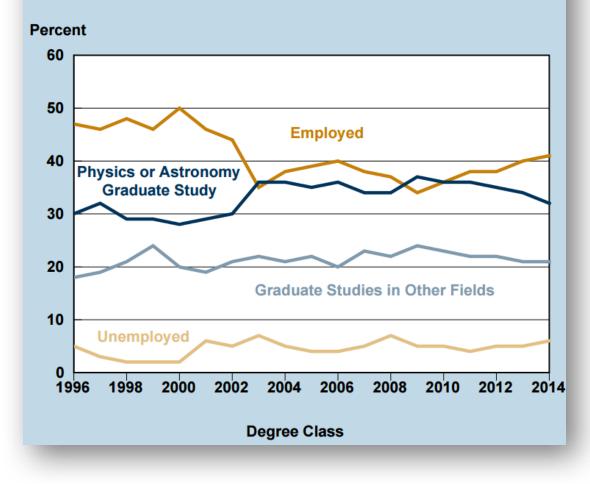
About 1/3 of all physics majors graduate with a double major



## One year later.

#### Good news!

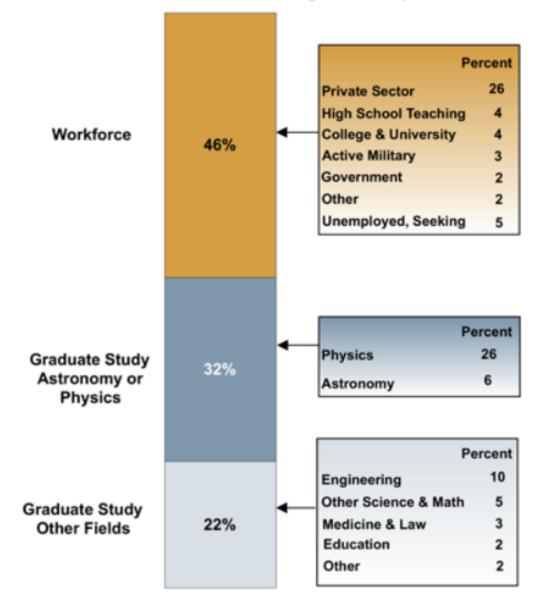
#### Status of Physics Bachelors One Year After Degree, Classes 1995 through 2014



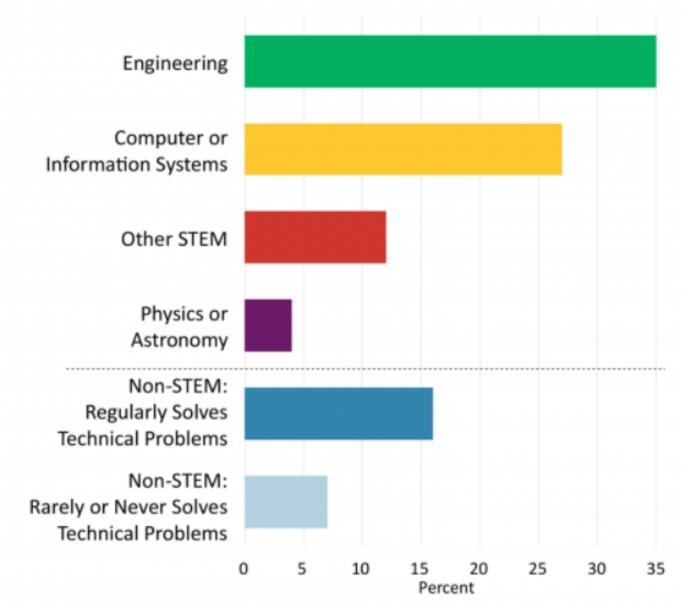
7

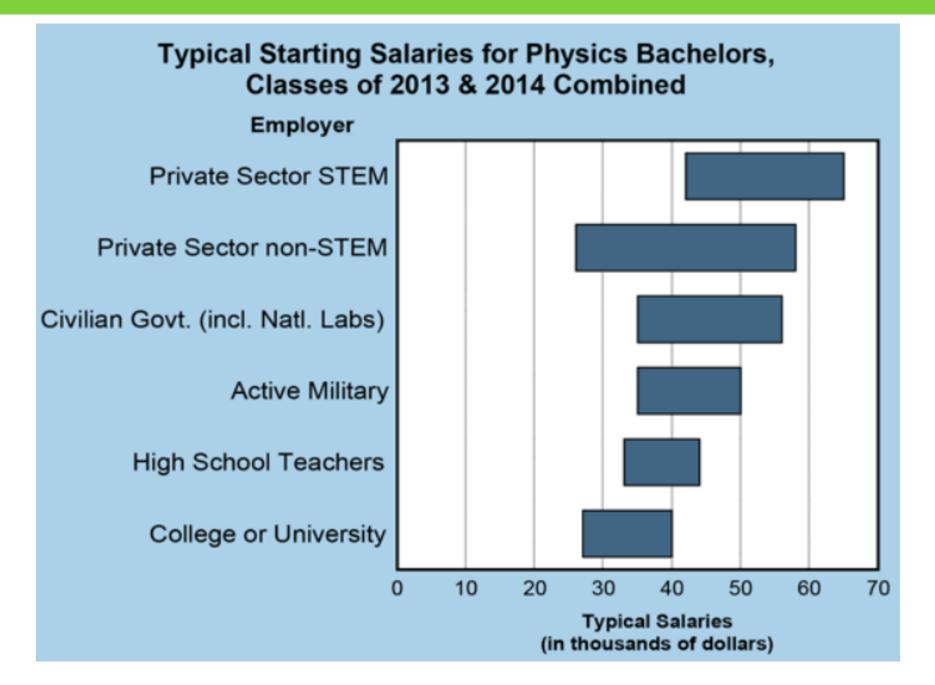
### **Physics Bachelors 1 Year Later**

7,430 Recent Degree Recipients



#### Field of Employment for New Physics Bachelors Employed in the Private Sector





## What about PhDs?

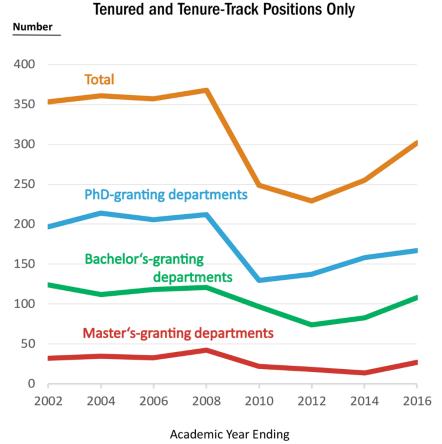
#### Physics PhDs Conferred in the U.S., 1900 through 2012. Number 2.000 2.000 1,800 1,800 1.600 1.600 1.400 1,400 Total U.S. Citizens 1,200 1,200 Non-U.S. Citizens 1.000 1,000 800 800 600 600 400 400 200 200 0 0 1900 10 20 30 40 50 60 70 80 90 00 12 **Degree Year**

#### Primary employment for PhD physicists is in the private sector! FMI: https://www.aip.org/statistics/whose

hiring-physics-phds

#### Less than 5% of Physics Bachelor's degree recipients will enter academia in a tenure track position

#### Number of Faculty Hired by Physics Departments



• The noticeable drop from 2008 to 2010 is likely due to the 2008 recession.

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# So, where <u>do</u> all those BS/BA physics graduates go?



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Students should be equipped for <u>the path they choose</u> when they complete their bachelor's degree.

Workforce (STEM, non-STEM)

Teaching K-12

Grad School (Physics & other)

Departments that provide robust programs addressing a broad range of career trajectories for undergraduate students *tend to be most successful.* 

Anythin

g!

## Resources are FREE.

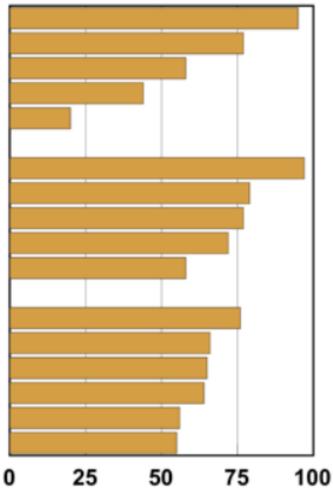
#### https://www.spsnational.org/career-resources/career-

Society of Physics Students			
About 👻 Programs & Resources 👻 Av	wards  Meetings  Career Resources  The SPS Obse	erver 👻 Sigma Pi Sigma 👻	
Home » Career Resources			
Career Resources	Career Resources		
SPS Jobs	Share This: 🛉 😏 🖇 🖗 🖾 🖨		
What opportunity are you	What opportunity are you looking for?		
looking for?			
Considering a Physics Major? Currently Studying Physics?			
Considering the Workforce?			
Considering Grad School?			
Career Pathways Project Careers Toolbox Website	Considering a Physics Major?	Currently Studying Physics?	
	Find out what you can do with a physics	Expand your resume. Search REU and	

Toni Sauncy - tsauncy@tlu.edu

#### Skills Used Regularly New Physics Bachelors Employed in STEM Fields

Work on a Team Manage Projects Work with Customers Manage People Manage Budgets Solve Technical Problems Technical Writing Perform Quality Control Design & Development Applied Research Programming Use Specialized Equip. Knowledge of Phys. or Ast. Advanced Math Simulation or Modeling Tech Support

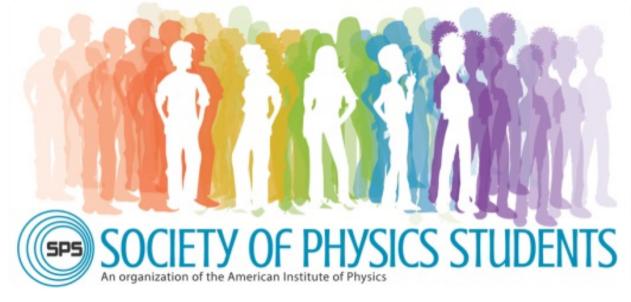


Percent Regularly Using Knowledge or Skill

## Physics – Common skills / skill sets

Working with laboratory instruments	Computer hardware and software
Conducting research	Analysis and quantitative thinking
Communicating complex ideas	Working with others
Problem solving and critical thinking	Others??

**Physics** I can't wait to hear Professor where \*your\* Career pathway takes you!



## www.spsnational.org

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## References

- AIP Statistical Research Center, AIP Physics Trends: Research Experiences of Physics Undergraduates, Fall 2009.
- AIP Statistical Research Center, AIP Physics Trends: Physics Students Have Broad Interests, Spring 2011.
- Susan White and Raymound Chu, Physics Enrollments in Two-Year Colleges, April 2013.