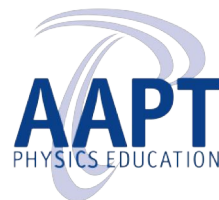
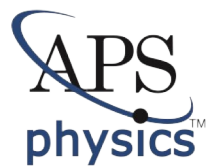


IGNITE THE FUTURE OF PHYSICS

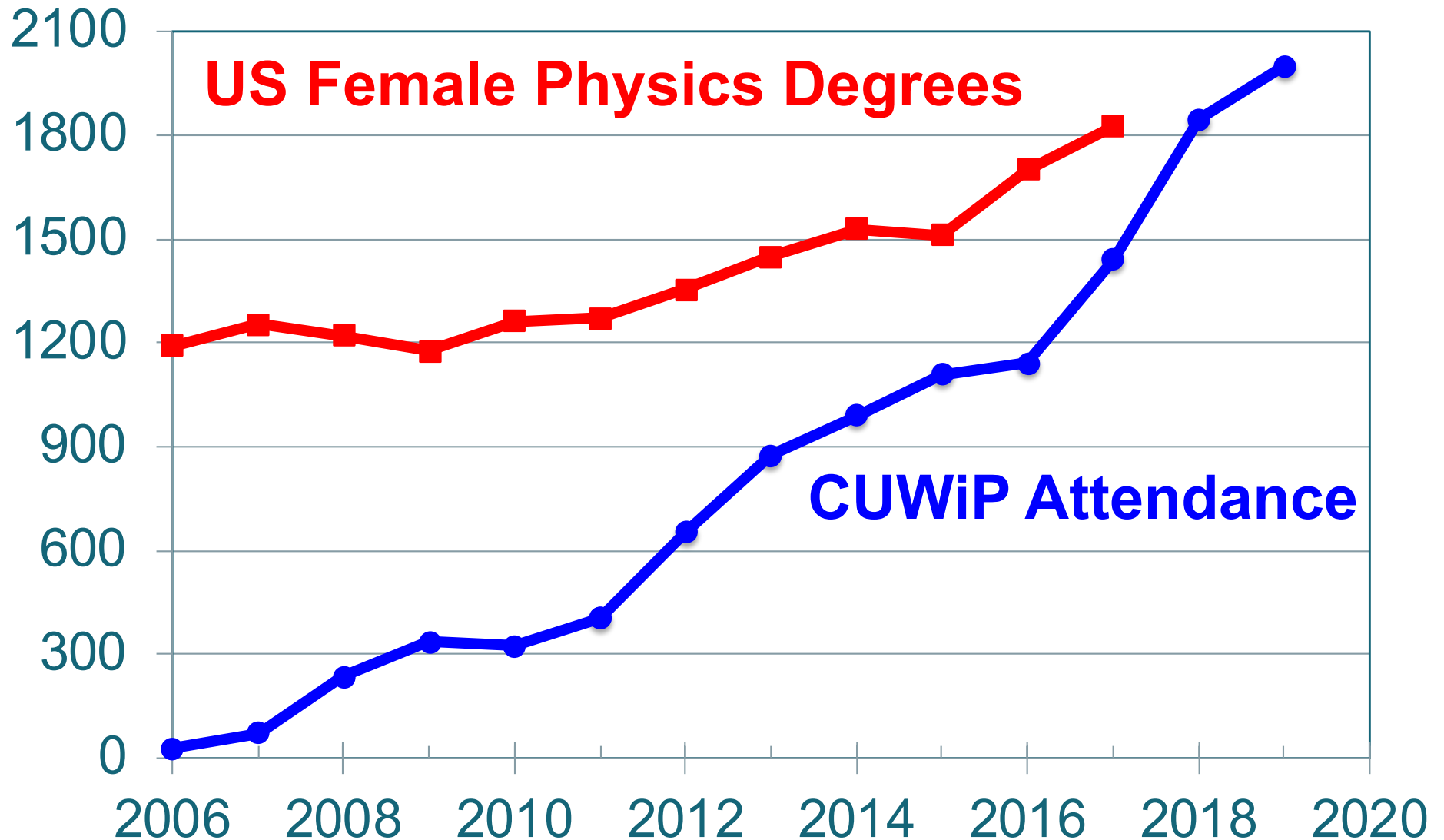
Learn more at
STEPUP4WOMEN.ORG

Theodore Hodapp
APS Director of Project Development
19/20 January 2019; Davis, CA



CUWiP: Every Physics Undergrad

STEPUP4WOMEN.ORG



Inspiring Women in Physics

STEPUP4WOMEN.ORG



Discuss:

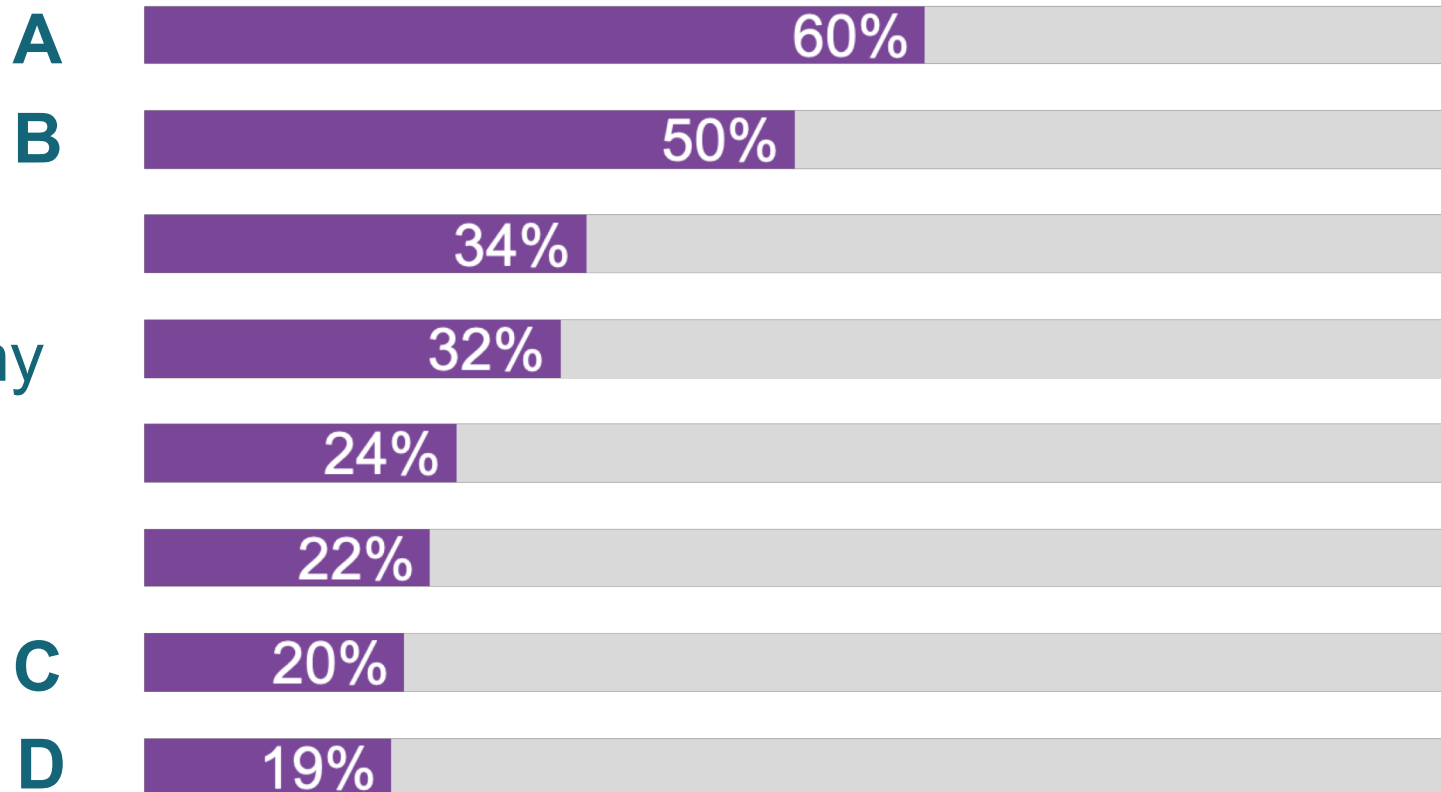
When did you get interested in physics?

What event or person in your life encouraged you to think seriously about a career in physics?

Comparing Across Countries

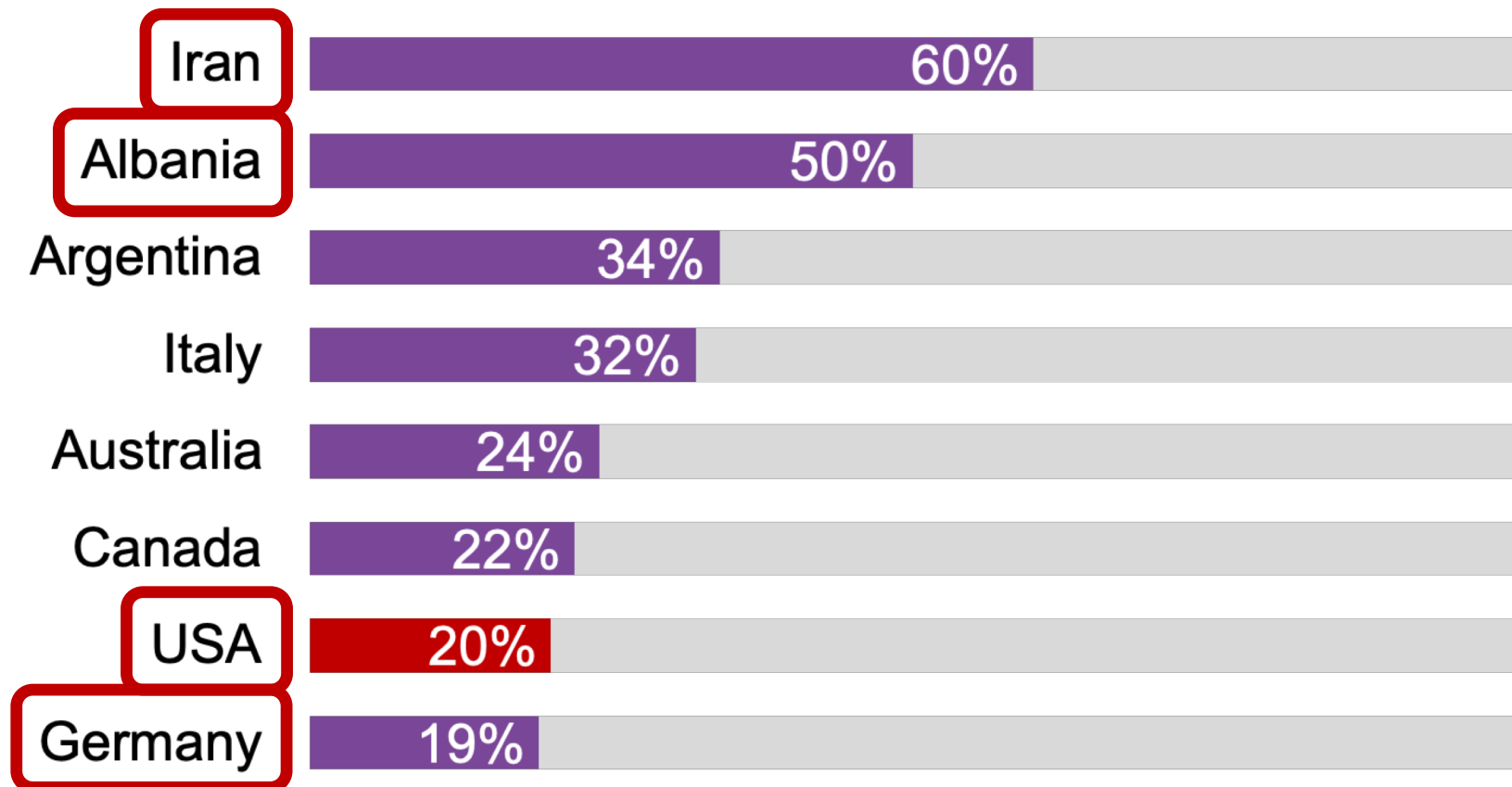
STEPUP4WOMEN.ORG

Percentage of Undergraduate Physics Degrees Awarded to Women



IUPAP International Conference on Women in Physics Proceedings (2005-2013)

Percentage of Undergraduate Physics Degrees Awarded to Women

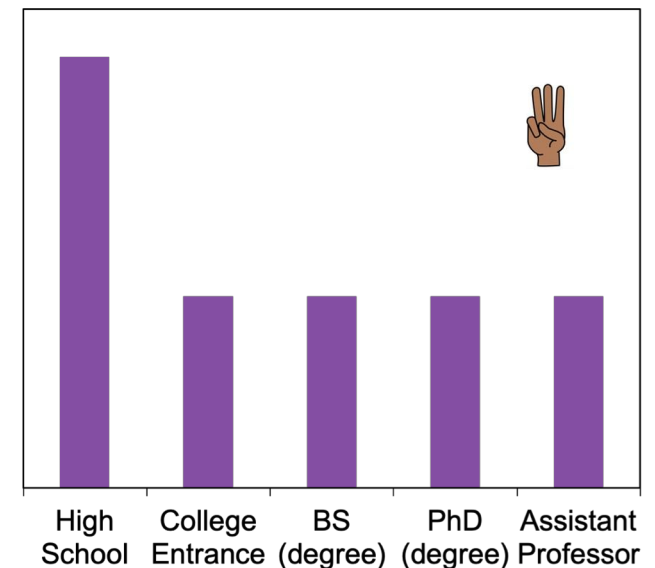
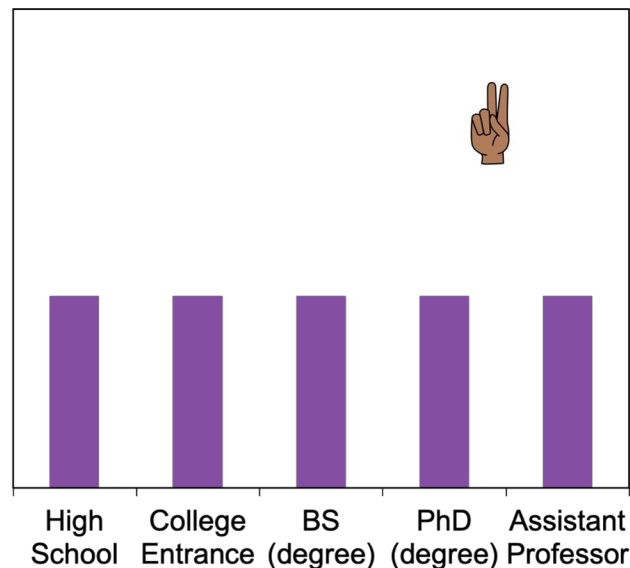
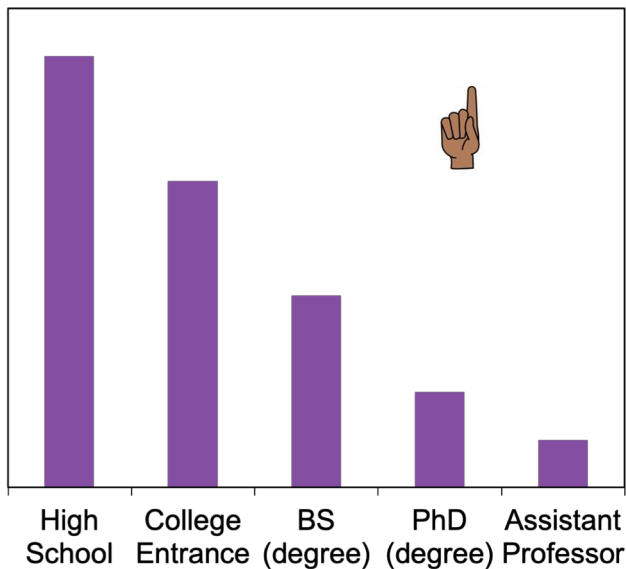


IUPAP International Conference on Women in Physics Proceedings (2005-2013)

Gender Differences in Physics

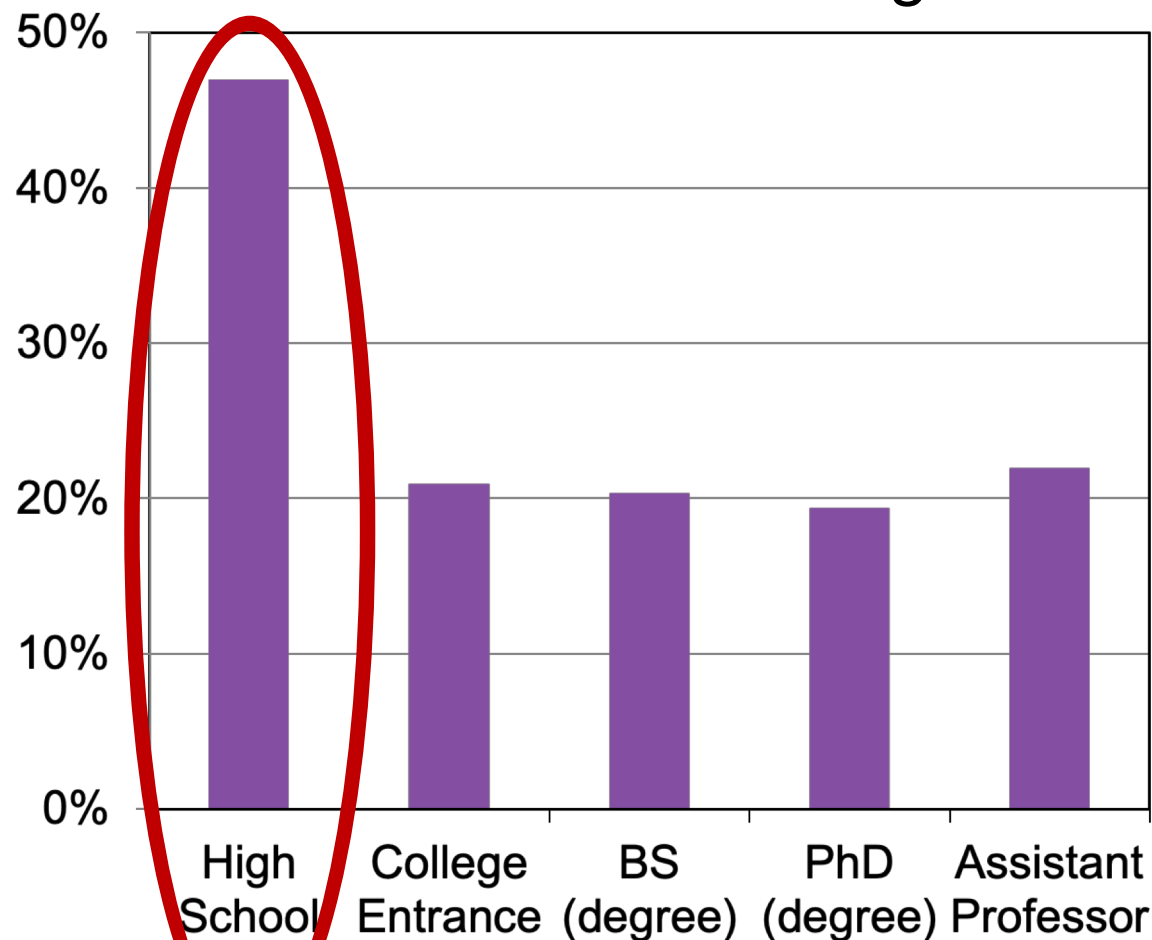
STEPUP4WOMEN.ORG

Percentage of participants in physics who are women
at various academic stages

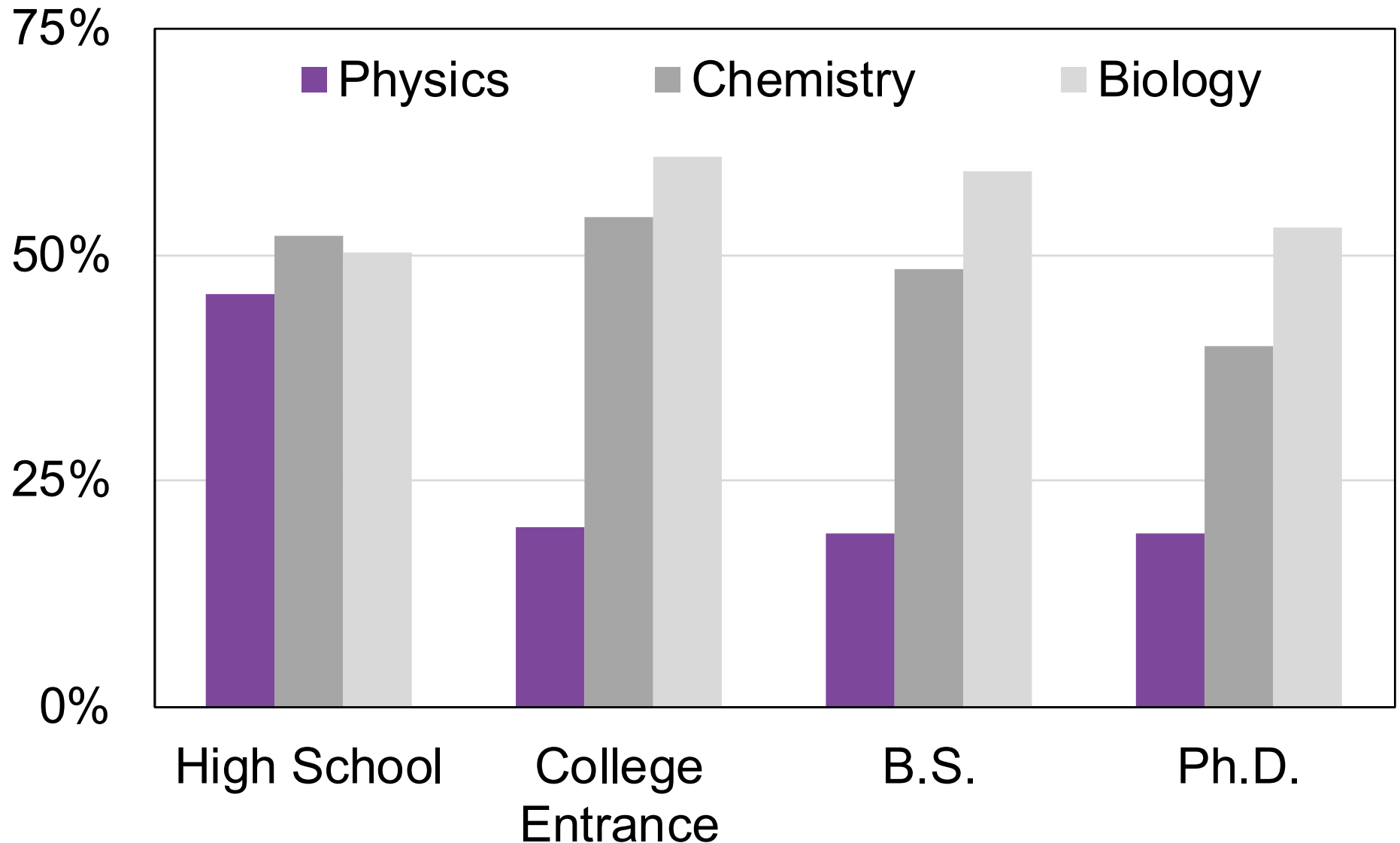


Gender Differences in Physics

Percentage of participants in physics who are women
at various academic stages

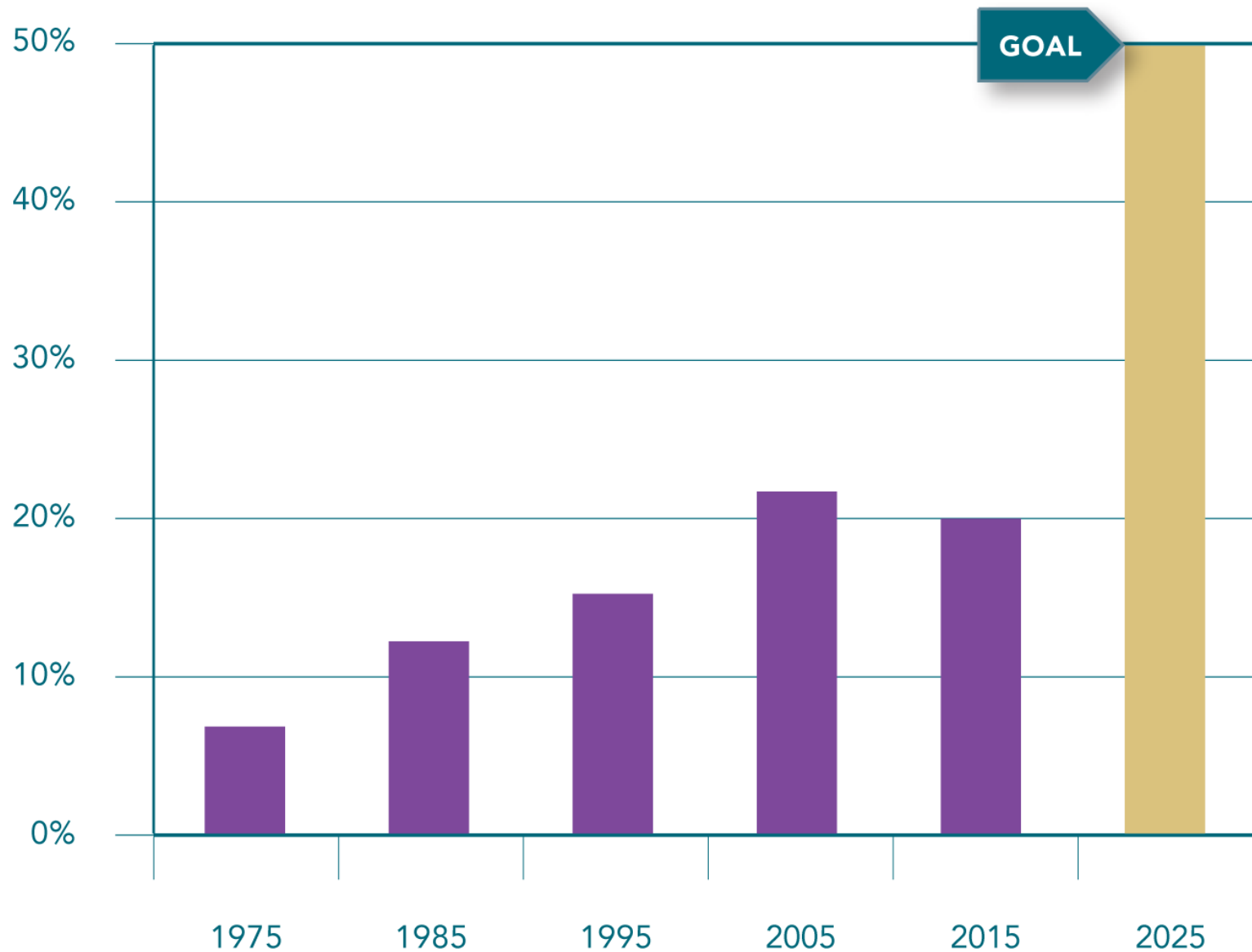


Compared to Other Sciences



What fraction of physics majors should be women?

Percentage of Bachelor's Degrees to Women



Project Goals

STEPUP4WOMEN.ORG



- Reduce barriers and inspire young women to pursue physics degrees in college
- Shift cultural views about who does physics

What High School Teachers Can Do!

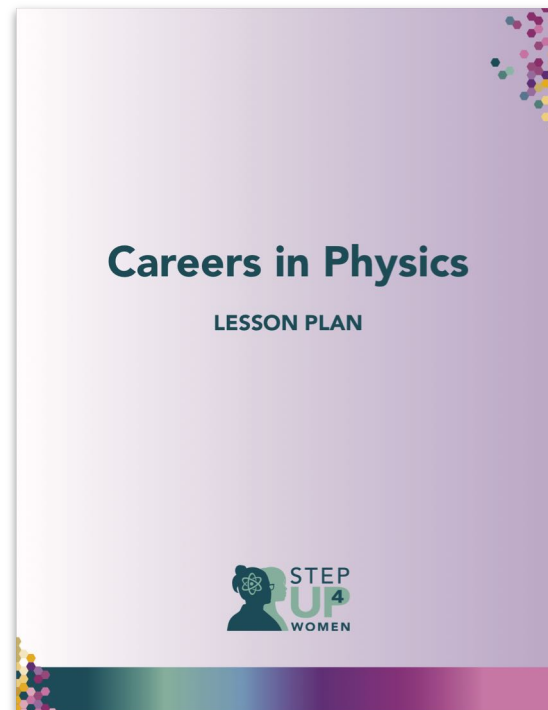
STEPUP4WOMEN.ORG

Implement research-based lessons and strategies
available FREE to educators

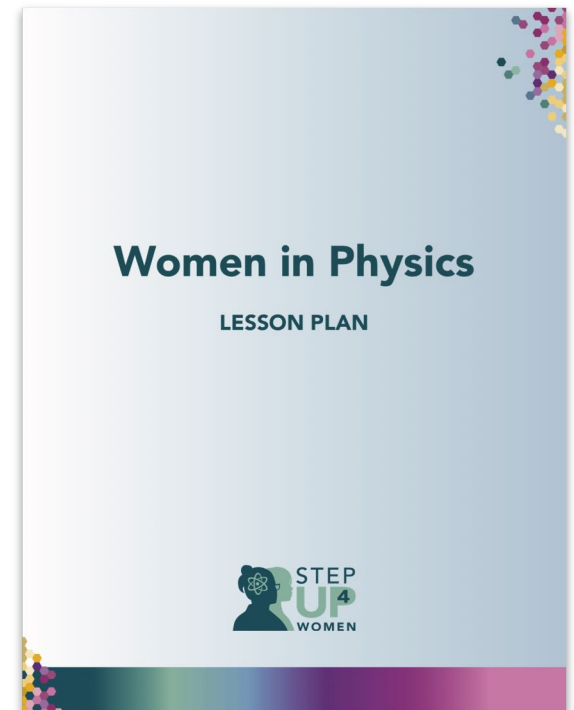
Everyday Actions
Guide



Careers in Physics
Lesson



Women in Physics
Lesson



27,000

High school physics teachers

5,000

Women majors needed for gender balance

400

Needed to be in the NYTimes!

How might you approach your own or other high school physics teachers about these strategies and resources?

Discuss in pairs:

1. How would you contact a teacher?
2. What would you say / ask?



What You Can Do!

STEPUP4WOMEN.ORG

1. Pick a high school physics teacher to contact
2. Register NOW at STEPUP4Women.org
3. Contact the high school physics teacher
4. Follow up!
5. Provide us feedback on your experiences
(Email: STEPUP4women@aps.org)
6. If you have ideas on how to reach more (many) teachers,
send us that idea/strategy

1. Pick a high school physics teacher to contact

- Your own high school physics teacher
- Your high school's science department chair
- A high school physics teacher who works near your university or hometown

You only need their **name** and **high school** for the next step

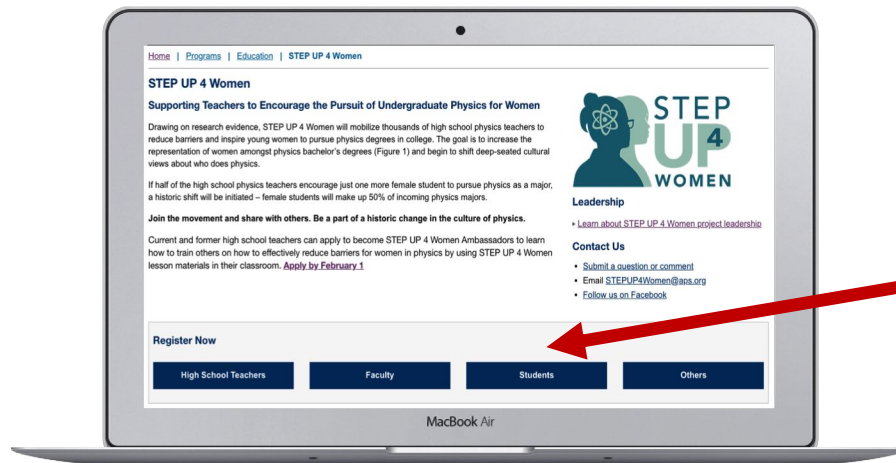
➤ Ways to identify teachers

- If you know who you're looking for, Google them!
- If you want to identify a teacher near your institution, try searching STEP UP teacher lists at <http://bit.ly/su4wtchrs>
 - These spreadsheets are organized by state; these are not complete lists

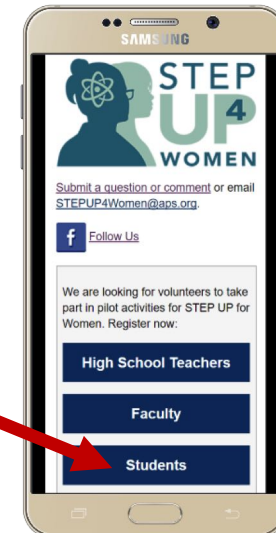
2. Register NOW at STEPUP4Women.org

3. Contact the high school physics teacher

1. Pick a high school physics teacher to contact
2. Register NOW at STEPUP4Women.org



**Register as
a student.**



3. Contact the high school physics teacher

1. Pick a high school physics teacher to contact
2. Register NOW at STEPUP4Women.org

How did you hear about STEP UP 4 Women?

☐ SPS (Society of Physics Students or other physics student club)

☒ APS CUWiP (Conferences for Undergraduate Women in Physics)

☐ WiP (Local Women in Physics group)

☐ Project website

☐ My physics teacher/professor

☐ Social media

☐ Other (specify below)

Other

Subscribe to list

Teacher Name; School Name

Jane Doe; Eastern High School

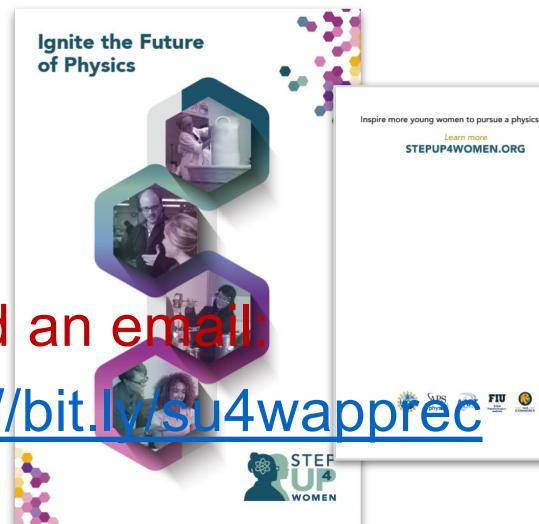
3. Contact the high school physics teacher

1. Pick a high school physics teacher to contact
2. Register NOW at STEPUP4Women.org
3. **Contact the high school physics teacher**
 - Thank them for their inspiration of young physicists
 - Ask for their help inspiring more women to pursue physics
 - Direct them to register at stepup4women.org

Write a post

Send an email

<http://bit.ly/su4wapprec>



STEP UP 4 Women - Teacher Appreciation

Your Name:

Your Email:

Conference Site:

Instructor's Email:

Message for your teacher:

Not sure if you remember me, but I took physics from you in 20XX. I am now working on my degree at the University of YYY — to a large extent because of the inspiration you provided me in your high school physics class.

Thank you for teaching physics to students in your classes every day. I'm writing about a program called STEP UP 4 Women, which enlists the help of teachers across the country in creating inclusive physics classrooms and inspiring women to study physics in college to help address the gender imbalance in the field.

The project has materials (available at STEPUP4Women.org) you can use in your classroom that have been successful in increasing a woman's chances at majoring in physics. Teachers, like yourself, are the key to making this strategy work. I hope you can help inspire many more young women to study physics and would be happy to come and talk to your class about what it is like to study physics in college!

1. Pick a high school physics teacher to contact
2. Register NOW at STEPUP4Women.org
3. **Contact the high school physics teacher**
 - Thank them for their inspiration of young physicists
 - Ask for their help inspiring more women to pursue physics
 - Direct them to register at stepup4women.org



STEP UP 4 Women - Teacher Appreciation

Your Name:

Your Email:

Conference Site:

Instructor's Email:

Message for your teacher:

Not sure if you remember me, but I took physics from you in 20XX. I am now working on my degree at the University of YYY — to a large extent because of the inspiration you provided me in your high school physics class.

Thank you for teaching physics to students in your classes every day. I'm writing about a program called STEP UP 4 Women, which enlists the help of teachers across the country in creating inclusive physics classrooms and inspiring women to study physics in college to help address the gender imbalance in the field.

The project has materials (available at STEPUP4Women.org) you can use in your classroom that have been successful in increasing a woman's chances at majoring in physics. Teachers, like yourself, are the key to making this strategy work. I hope you can help inspire many more young women to study physics and would be happy to come and talk to your class about what it is like to study physics in college!

<http://bit.ly/su4wapprec>

Teacher contact spreadsheets:
<http://bit.ly/su4wtchrs>

Inspire the next generation!

- Make a **Classroom Visit** (talk about what it is like to study physics)
- Follow up with a **Phone Call**.
- **Meet** with your teacher.
- Send a reminder **Email**.

*Complete the workshop
follow-up survey in
mid-February, and we'll
send you a gift!*





Thank you from the National Team!

STEPUP4WOMEN.ORG



This material is based upon work supported by the National Science Foundation under Grant Nos. 1720810, 1720869, 1720917, and 1721021. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Questions?

Contact us at
stepup4women@aps.org

