



# Who is Teaching High School Physics in Central Florida?

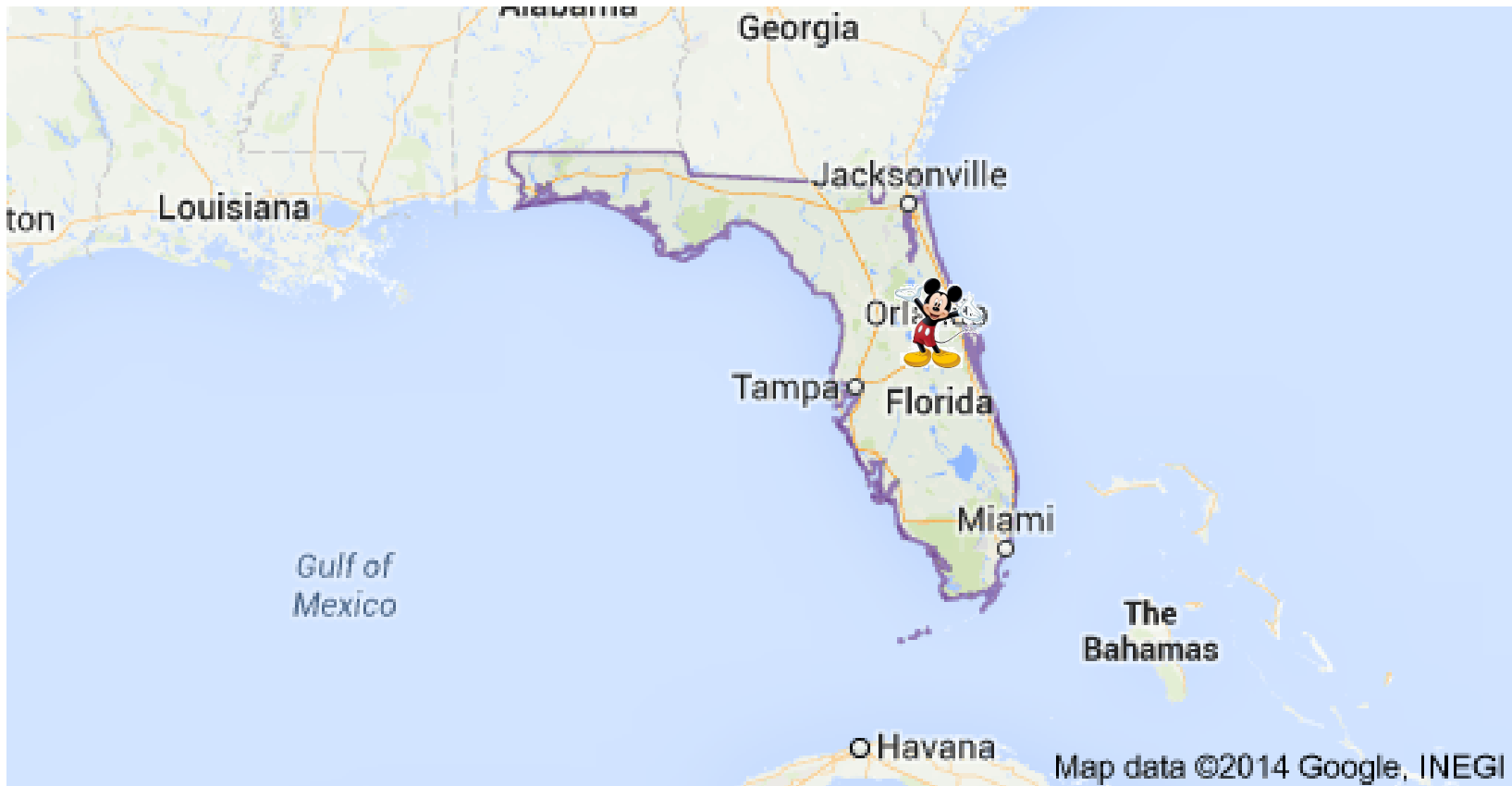
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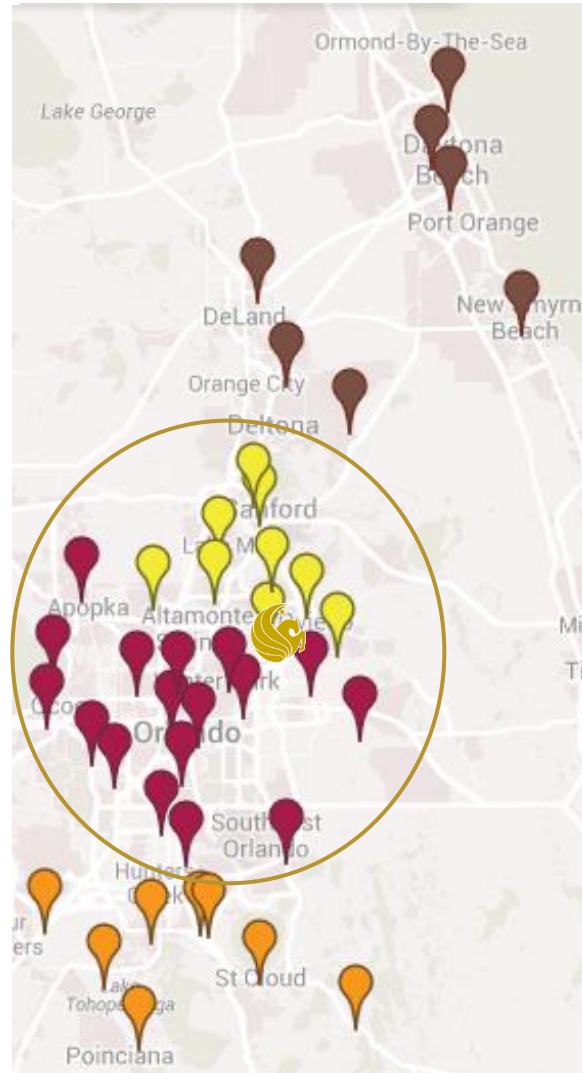
# Introduction & Context

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~40 public schools



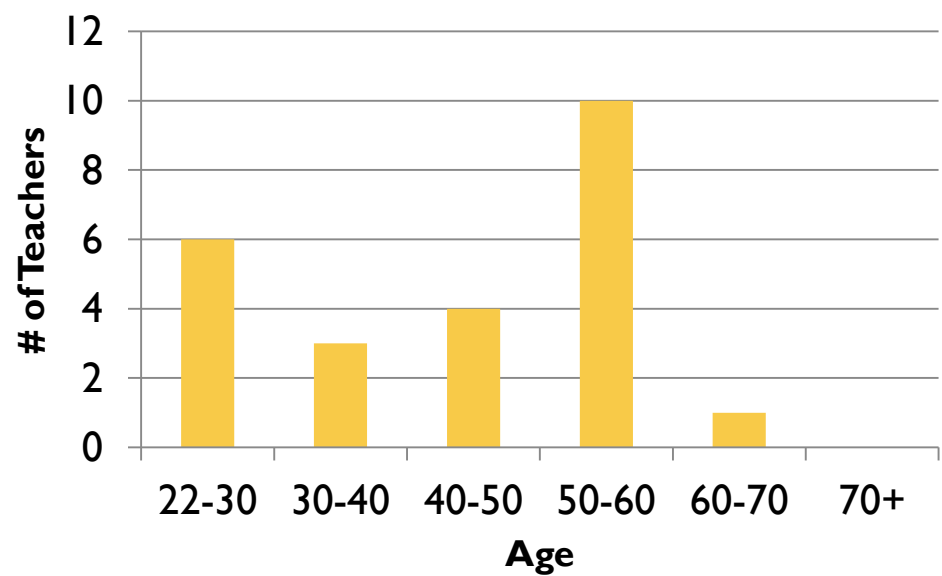
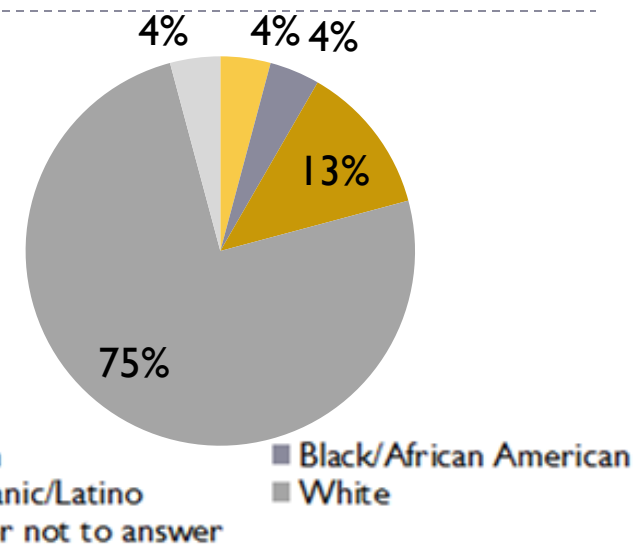
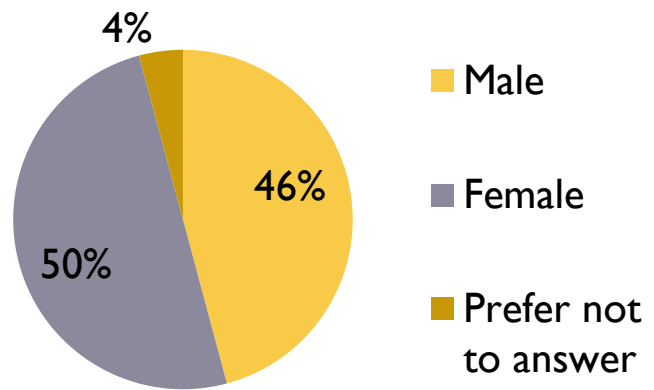
# Survey Methodology

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- ▶ **Identified:**
  - ▶ Schools from county websites
  - ▶ Physics teachers from websites or email to principals
  
- ▶ **Sampled all identified teachers (N = 48)**
  - ▶ Emailed link to survey in Qualtrics
  - ▶ Sent weekly reminders for two weeks
  
- ▶ **24 teachers responded (50%)**



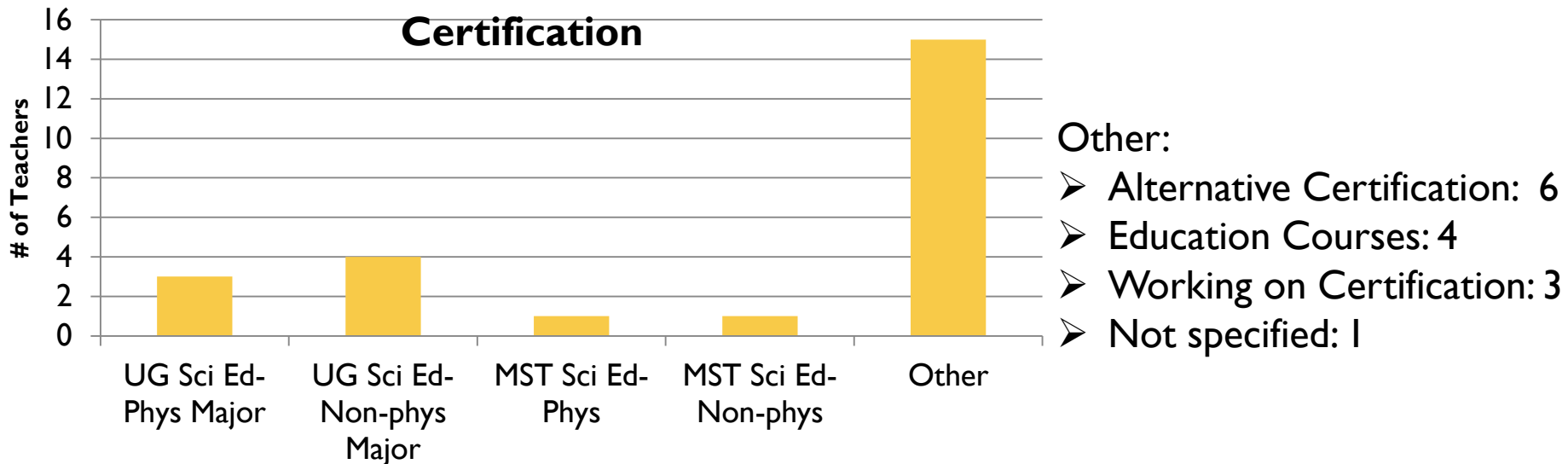
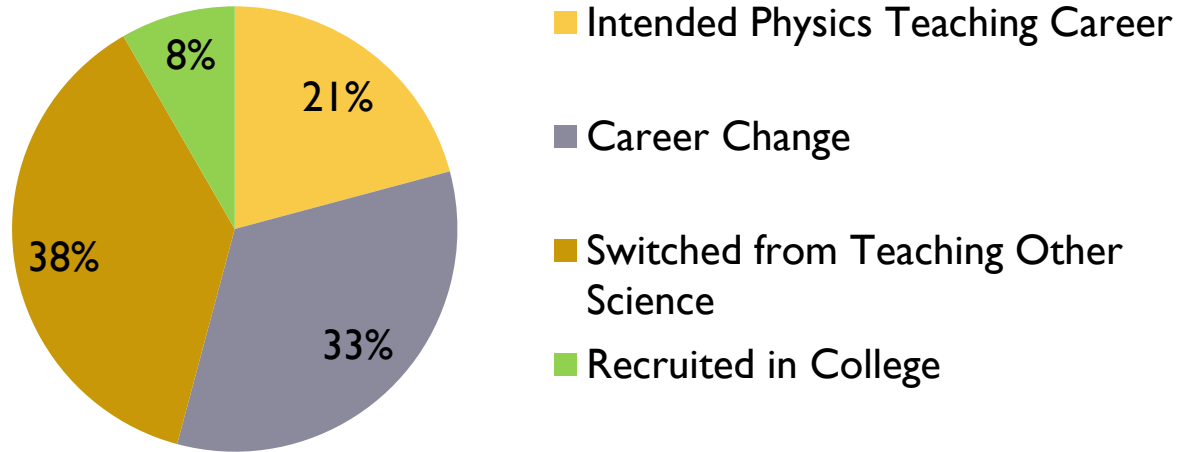
# Demographics



- National Averages:
- 32% female (2009– rising)<sup>1</sup>
  - Median age: 46 (2009– increasing)<sup>1</sup>
  - African American & Hispanic– 1.5% each; Asian-Americans– 2% (2005)<sup>1</sup>
    - In our counties, white non-Hispanics make up 38.2% to 74.5% of the population<sup>2</sup>

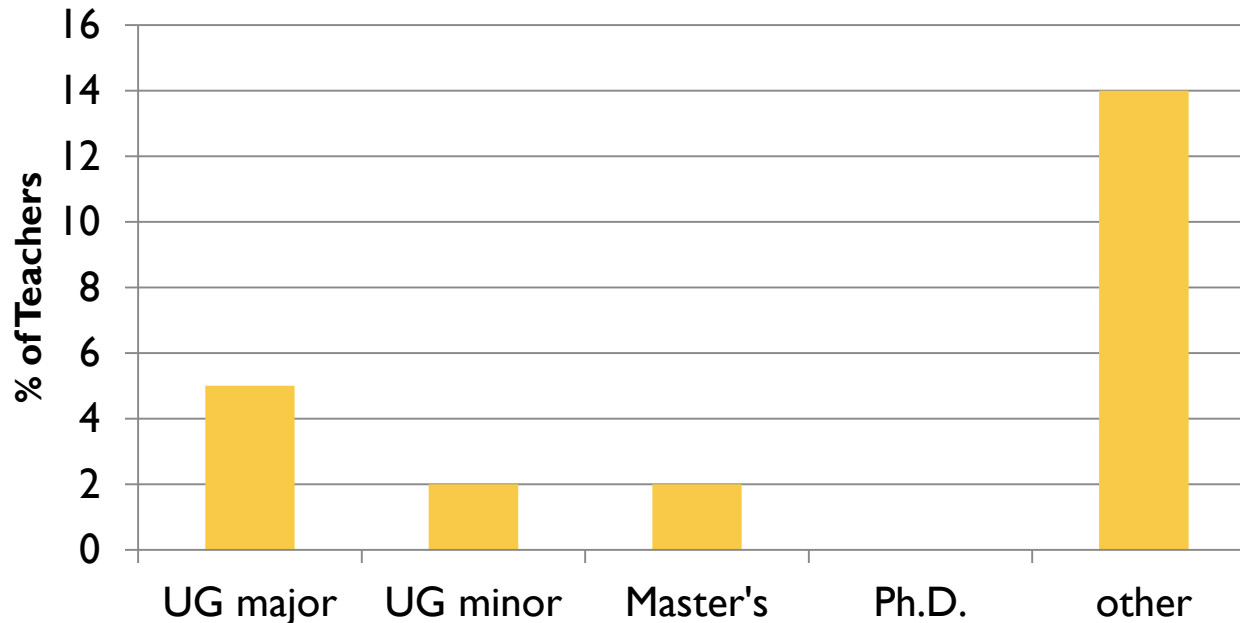
<sup>1</sup><http://www.aip.org/statistics>      <sup>2</sup>[www.census.gov](http://www.census.gov)

# Results– Pathways to HS Physics Teaching



# Results– Physics Experience

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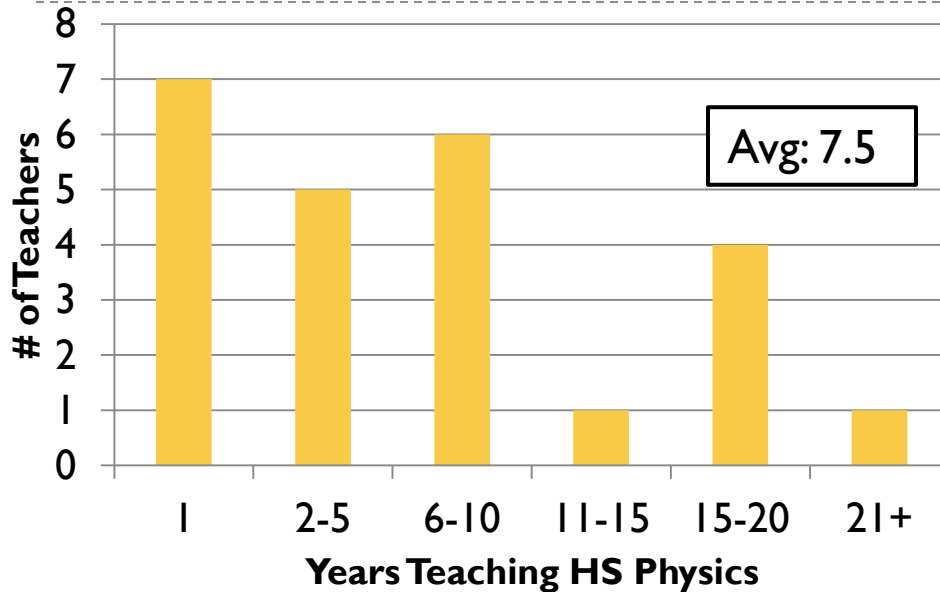
## Other:

- Physics Education Master's: 2
- Other Science Major: 9
- Some College Courses: 3
- Minimal Experience: 1

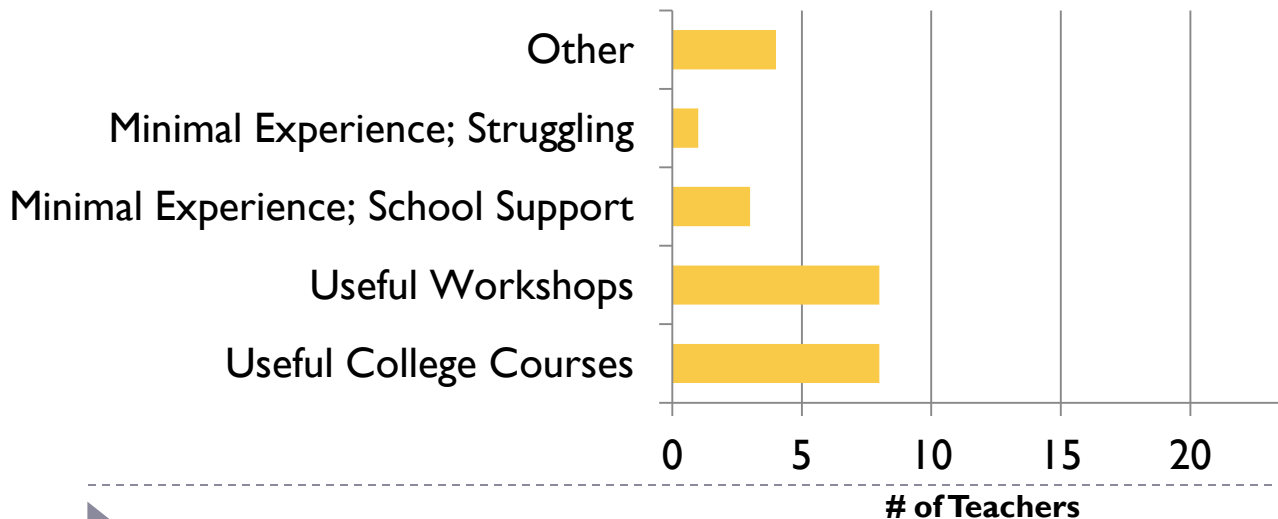
Nationally, 46% of HS physics teachers were physics or physics education majors or minors



# Results– Physics Teaching Experience



Nationwide, >70% of teachers have been teaching physics for more than 4 years

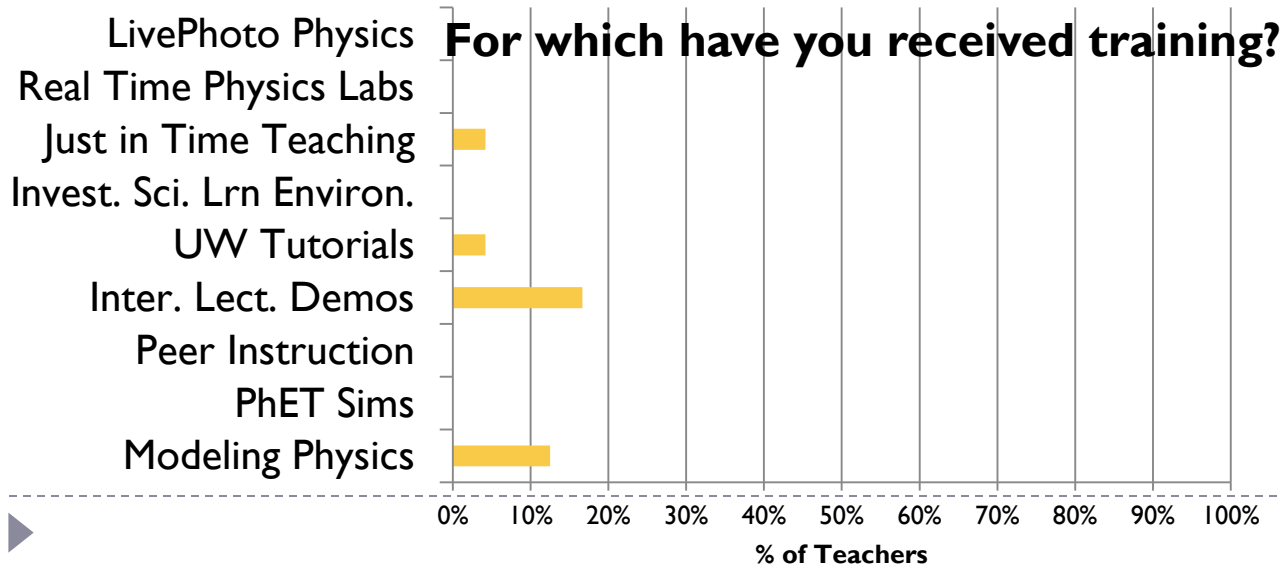
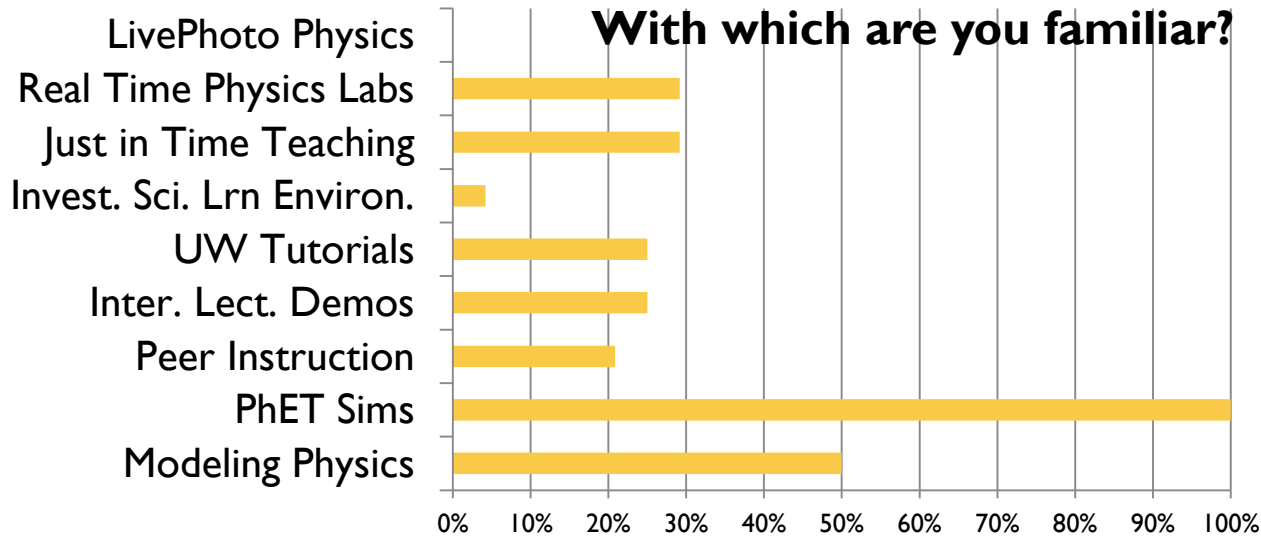


Other:

- Multiple Useful Experiences: 2
- Personal Experience: 2

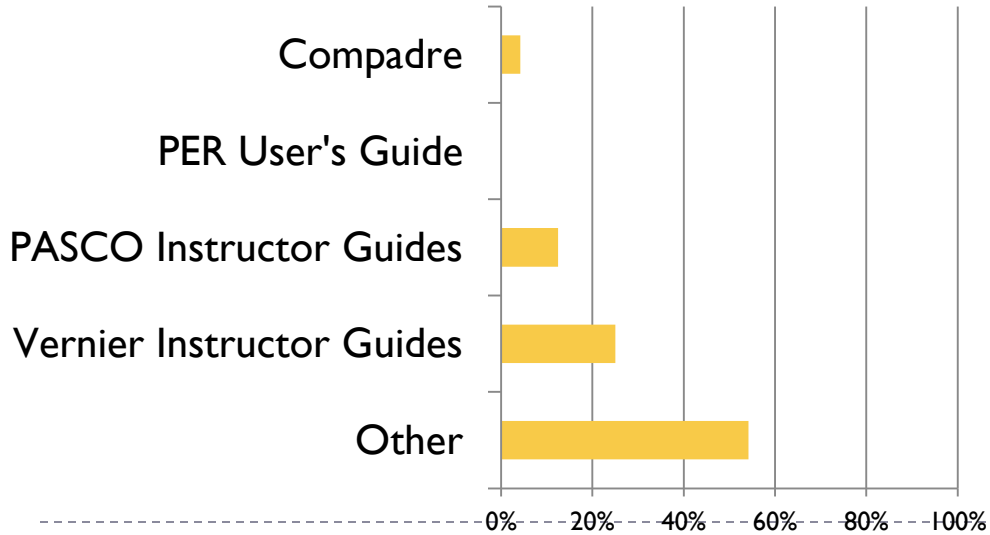
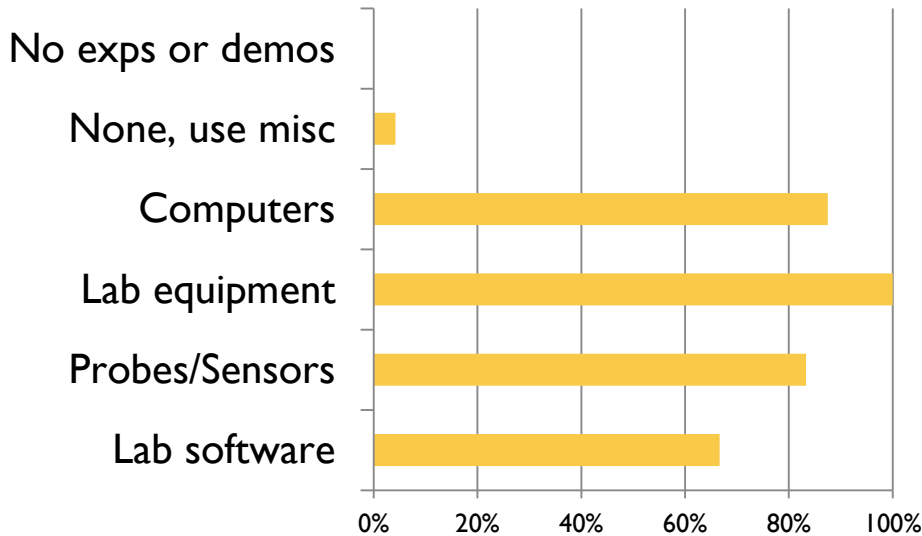


# Results– PER-based Pedagogy



- Training Description:**
- AAPT Workshop: 3
  - Modelling Workshop: 3
  - Optics Conference Workshop: 1

# Results– Available Resources



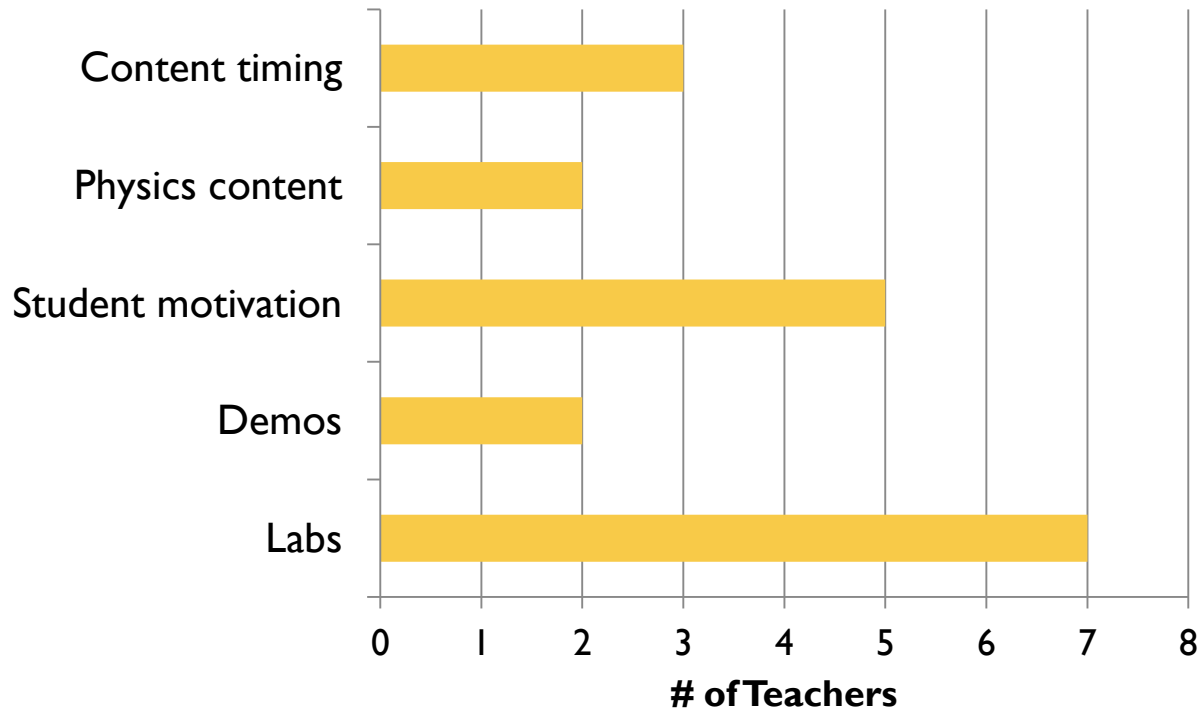
## Other:

- physicsclassroom: 17%
- prettygoodphysics.wikispaces.com: 8%
- Teacher Websites: 13%
- General Internet Searches: 17%
- Peers/Mentors: 8%
- Other– AAPT, NSTA, NASA. Modeling Website, Textbook, aplusphysics.com



# Results– Areas of Improvement

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# Discussion

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- ▶ Many teachers have access to equipment, but would like new ideas about how to use it.
- ▶ Several teachers have a wealth of experience we can harness.
- ▶ A few teachers request help with content– could lead to fruitful relationships with physics majors.
- ▶ All teachers knew about PhET sims– may be a good topic for a workshop.
- ▶ Teachers have not had access to much physics specific training.
  - ▶ UCF TIR gave physics-specific in-service workshop for one county



# Thank you!

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- ▶ Learn more about the UCF PhysTEC project at our website: [physics.cos.ucf.edu/phystec](http://physics.cos.ucf.edu/phystec)

