A New Survey: Faculty Perceptions of Teaching as a Profession

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Introduction

• K-12 science and math teachers are in high demand!

• Why don’t more STEM majors go into teaching?
  ➢ Many are discouraged by misperceptions about teaching as a profession

• We aim to change this by spreading correct information about the teaching profession

• Step 1: *measure perceptions* among students and faculty
Survey: Perceptions of Teaching as a Profession (PTaP)

- The PTaP is a survey instrument designed to probe STEM students’ beliefs and attitudes about teaching as a profession.

- The PTaP was developed in 2017:
  - 58 statements
  - 1-5 disagree/agree scale (Likert-type)
  - Takes about 8 minutes for students to complete.

- Sample statements:
  - “My department would be proud if I became a grade 7-12 teacher”
  - “I would become a grade 7-12 teacher if the pay were equal to my other career options”
FPTaP: Faculty Perceptions of Teaching as a Profession

• The FPTaP is a survey, similar to the PTaP, designed to measure faculty perceptions and attitudes about teaching.

• Survey containing:
  ➢ 49 statements
  ➢ 1-5 disagree/agree scale (Likert-type)
  ➢ Typically takes ~10 minutes to complete
  ➢ Still in development!

• Shorter, but taking longer to complete - faculty have thought about teaching careers more than students have, but perceptions are not necessarily more accurate
Sample FPTaP statements:

• “I have suggested grade 7-12 teaching to a student.”

• “There are scholarships available specifically for prospective grade 7-12 teachers.”

• “I would feel comfortable if one of my strongest students became a grade 7-12 teacher.”
FPTaP Survey Development

• We started by developing statements – how?
  ➢ Talked to faculty
  ➢ Used modified PTaP statements

• General protocol:
  ➢ Develop questions
  ➢ Interview faculty members
  ➢ Collect data
  ➢ Modify statements
  ➢ Interview faculty again
  ➢ Collect final data
FPTaP Interviews

- We use a think-aloud protocol to validate our survey questions

  - Faculty answer survey questions aloud and discuss their reasoning and interpretation, we record the results

- We have conducted 27 faculty interviews at 5 institutions

  - Generally, question interpretations have been consistent

  - We plan to do 10-15 more interviews after modifying statements
FPTaP Results

- Common faculty misperceptions in interviews have included:
  - Underestimating teacher salaries by about ~$10,000
  - Underestimating teacher retention rates (answer: 79% remain at 5 years)
  - Lack of knowledge about loan forgiveness and scholarships
  - Underestimating interest in teaching from STEM students
FPTaP Questions

• “I regularly discuss general career options with students.”
  ➢ 80% agree  12% neutral  8% disagree

• “I regularly discuss grade 7-12 teaching as a career option with students.”
  ➢ 50% agree  8% neutral  42% disagree

Faculty are not discussing teaching as a career option!
FPTaP Questions

• Open-ended question: “What percentage of students do you think have considered grade 7-12 teaching as a career in your university?”
FPTaP Questions

- Open-ended question: “What percentage of students do you think have considered grade 7-12 teaching as a career in your university?”

  - Interview answers: 2% - 10%
• Open-ended question: “What percentage of students do you think have considered grade 7-12 teaching as a career in your university?”

➢ Interview answers: 2% - 10%

➢ Actual answer: 50%!

Faculty hugely underestimate interest in teaching!
Conclusions

• There are strongly-held misperceptions about teaching as a profession among STEM students and faculty

• We have developed surveys to measure these misperceptions

• Notable misperceptions are related to salaries, loan forgiveness, scholarships, interest in teaching, and retention rates

• We have also developed workshops and other tools to dispel misperceptions about teaching – contact us for more information!
  ➢ “Get the Facts Out” campaign
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Thank you for coming!

Questions?

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PTaP Results

• The PTaP has been completed by ~1000 students at ~15 institutions

• Responses show that STEM students have strong misperceptions about several topics, including:
  - Teacher salaries (underestimated by ~$10,000)
  - Private sector salaries (overestimated by ~$10,000-$40,000)
  - Don’t think teachers can retire comfortably
  - Think teaching would be boring after a few years

• We have developed materials to “get the facts out!”

• What about faculty perceptions?