



**2021|22 Year 3**

**Get The Facts Out**

**Student Strategy Engagement (SSE) Analysis**



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## About Get the Facts Out

Get the Facts Out (GFO) is a five-year, NSF-funded partnership of the Colorado School of Mines and four national societies: the American Physical Society, the American Chemical Society, the American Association of Physics Teachers, and the Association of Mathematics Teacher Educators. GFO is a unique project designed to reach STEM majors in a large fraction of all U.S. mathematics, chemistry, and physics departments and has the potential to address teacher shortages in these high-need STEM disciplines significantly.

## Repairing the Reputation of the Teaching Profession

To change the conversation around STEM teacher recruitment at institutions across the country, GFO produces research-based content and reports that faculty can use to help improve their teacher recruitment efforts. The resources are designed to celebrate the positives of teaching and to provide students and faculty with facts that address misinformation and common misperceptions about teaching. The GFO Project Team continually works to update and improve these resources as well as provide support to the faculty who use them.

These resources, and all other content in this report, are intended to be used broadly to change the conversation around STEM teaching careers. We encourage anyone to use and distribute these materials for their intended purpose, within the terms of the [Creative Commons license described here](#).



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## Questions include:

1. *How many faculty members do you remember hearing mention grade 7-12 teaching as a career option?*
2. *Have you had a conversation with a faculty member about **becoming** a grade 7-12 teacher?*
3. *Have you heard a faculty member mention various topics about grade 7-12?*
4. *Within your department, have you seen any media addressing any of the topics listed in Question 3?*
5. *How do you think your family feels about teaching as a career option? **Please explain.***
6. *Are you interested in sharing any media related to the topics listed in Question 3 with your family? This could be in the form of brochures, or flyers, etc.*

## Demographics

Student Gender Information (n = 2364)		
Gender	Respondents	Percentage
Male	1177	49.7%
Female	1119	47.3%
Other	68	3.0%
<b>Total</b>	<b>2364</b>	<b>100.0%</b>

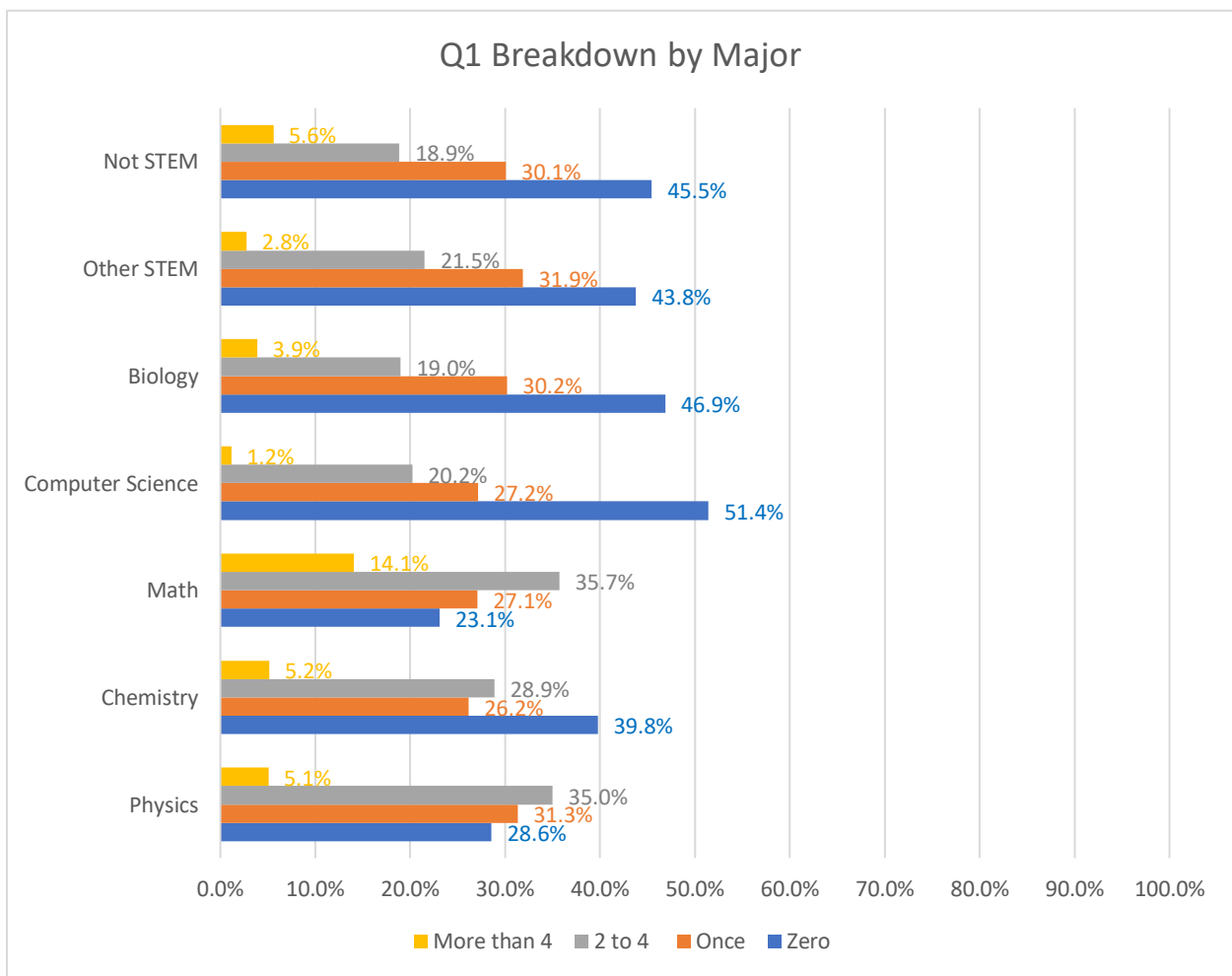
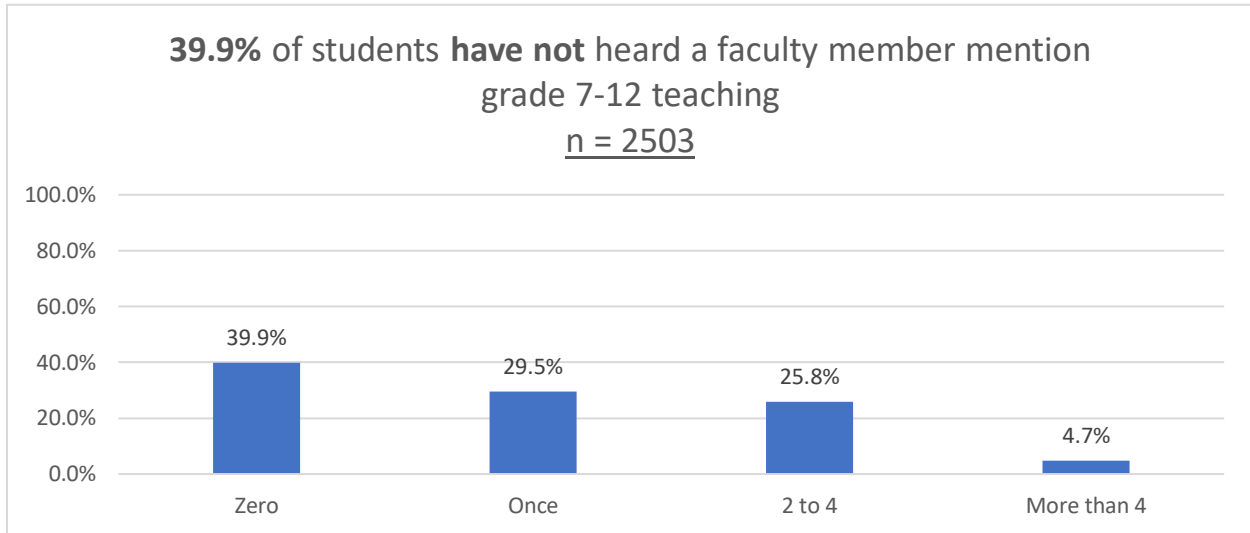
Student Department Information (n = 2570)		
Department	Respondents	Percentage
Math	279	10.9%
Chemistry	368	14.3%
Physics	431	16.8%
Comp. Science	174	6.8%
Biology	389	15.1%
Other	929	36.1%
<b>Total</b>	<b>2570*</b>	<b>100.0%</b>

\*This total counts people who selected multiple options

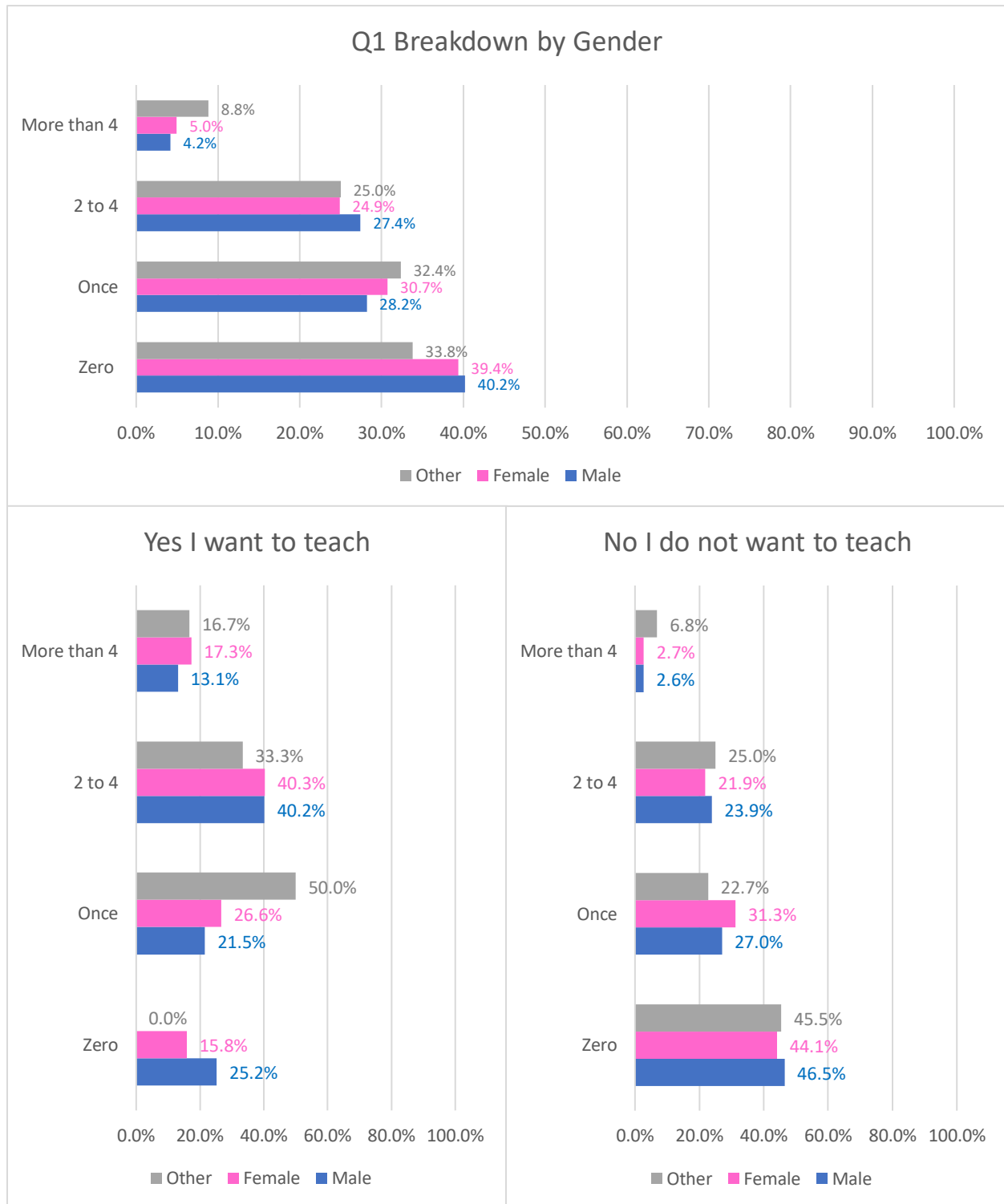
Student Race/Ethnicity Information (n = 535)		
Race/Ethnicity	Respondents	Percentage
White/Caucasian	1776	67.1%
Black/African American	134	5.1%
Hispanic/Latino	311	11.7%
Asian/Asian American	248	9.5%
American Indian/Alaska Native	30	1.1%
Native Hawaiian/Other Pacific Islander	16	0.6%
Middle Eastern/North African	48	1.8%
Prefer not to say	61	2.3%
Other	22	0.8%
<b>Total</b>	<b>2646*</b>	<b>100.0%</b>

\*This total counts people who selected multiple options

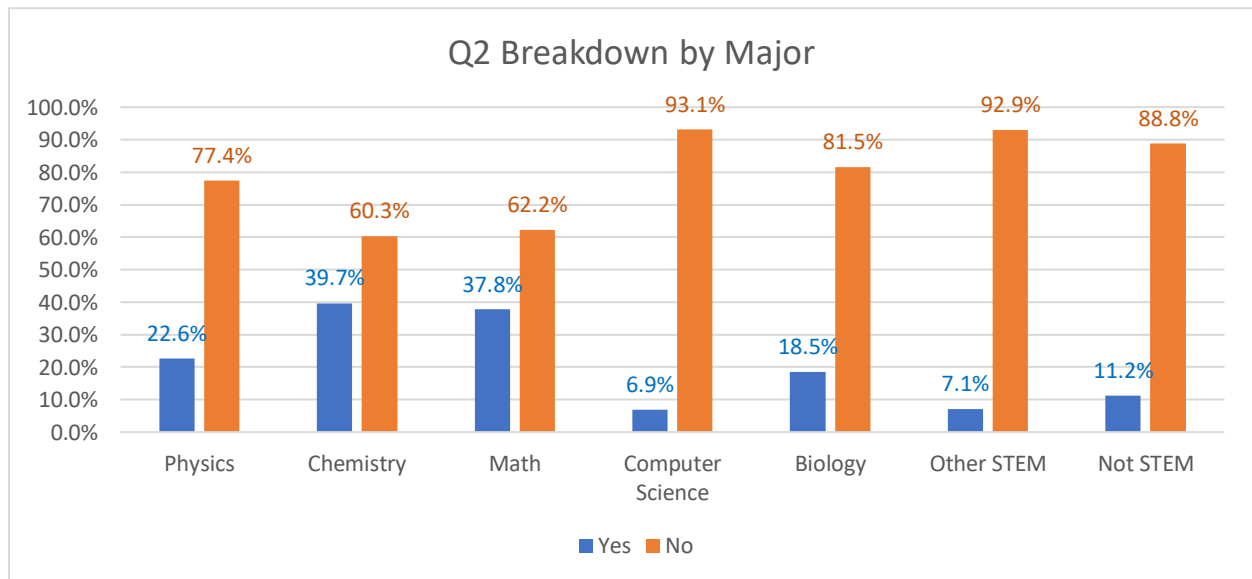
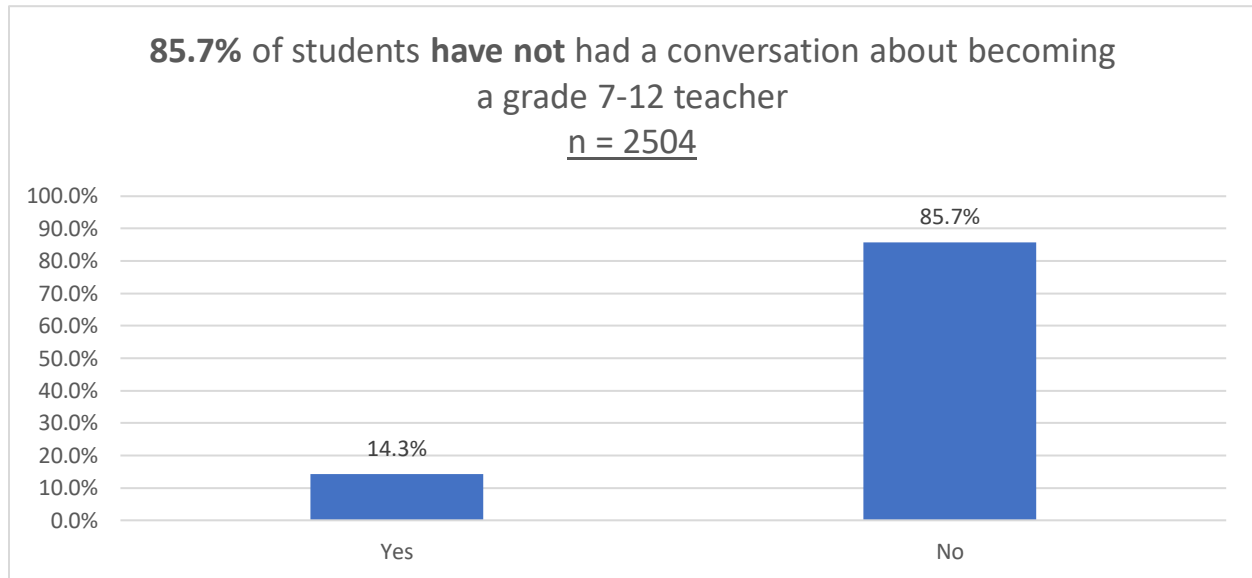
Students were asked how many faculty members they remember hearing mention grade 7-12 teaching as a career option.



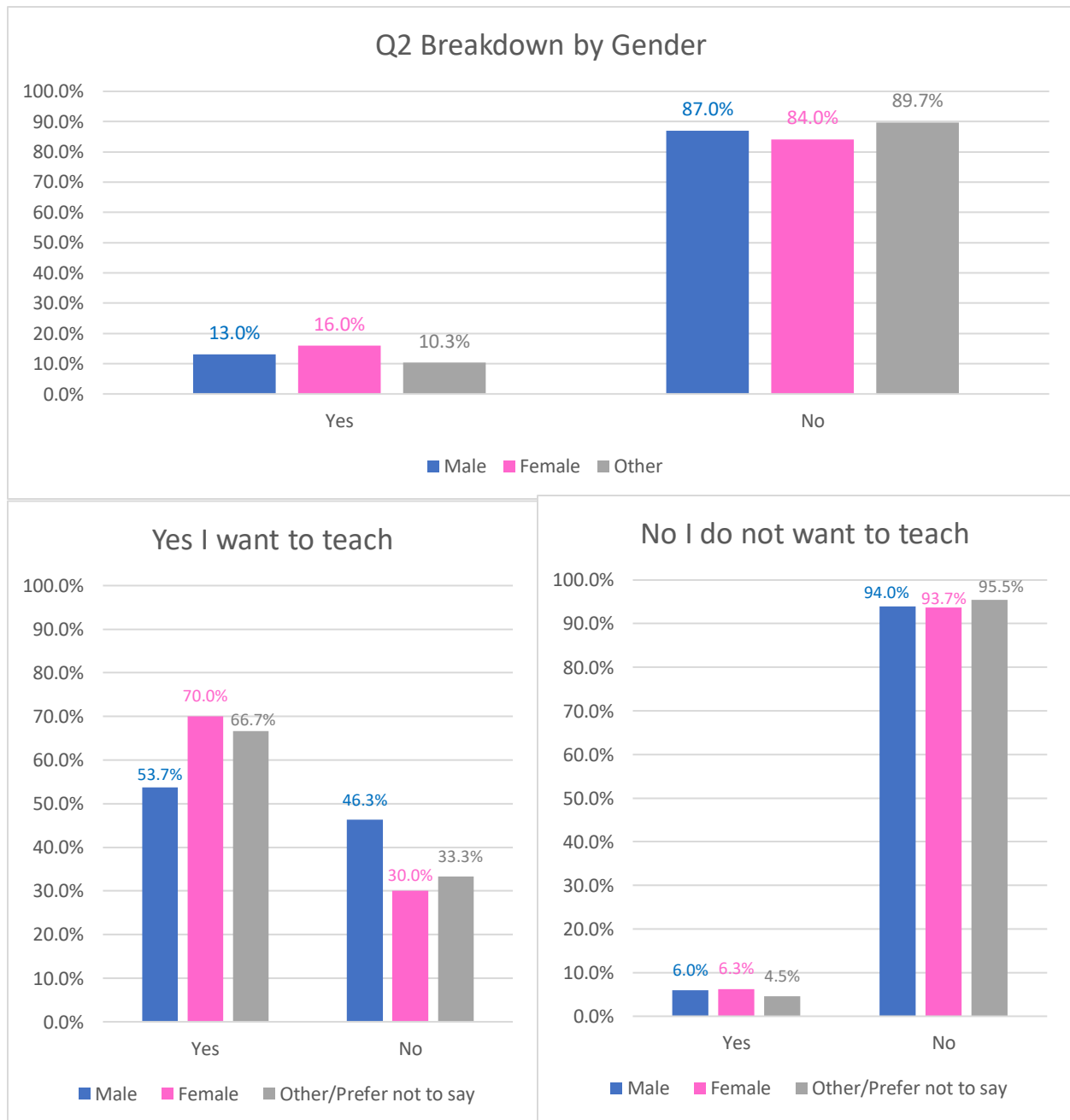
How many faculty members have mentioned grade 7-12 teaching as a career option?



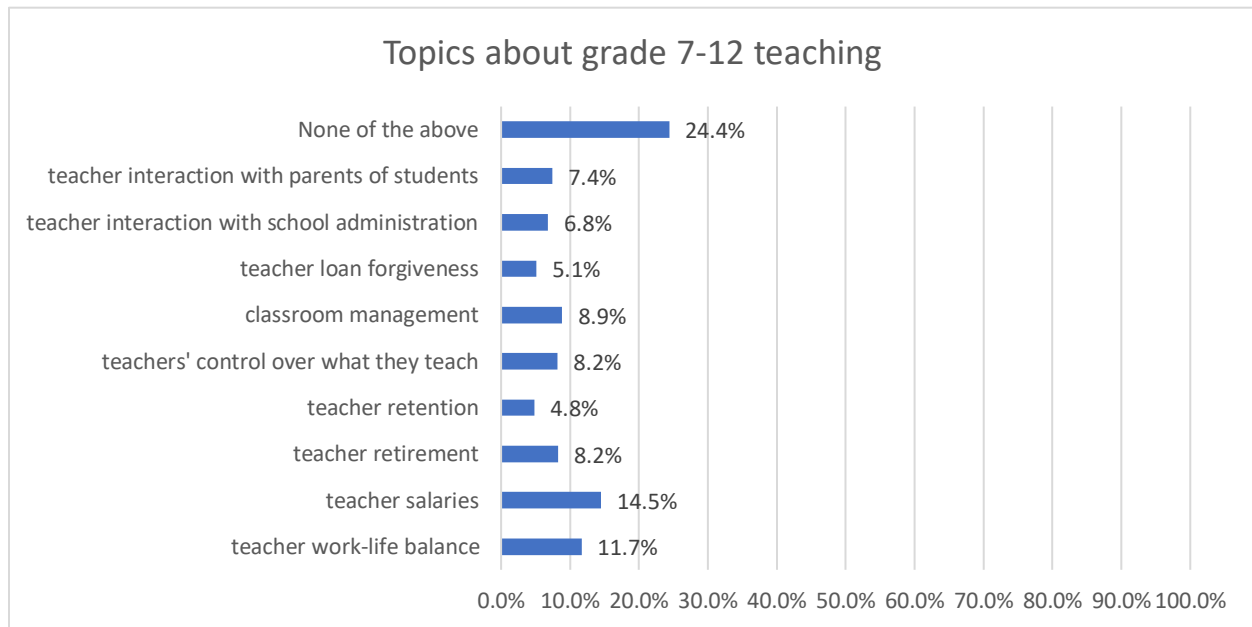
Students were then asked whether they have had a conversation about becoming a grade 7-12 teacher.



Have students had a conversation about becoming a grade 7-12 teacher?

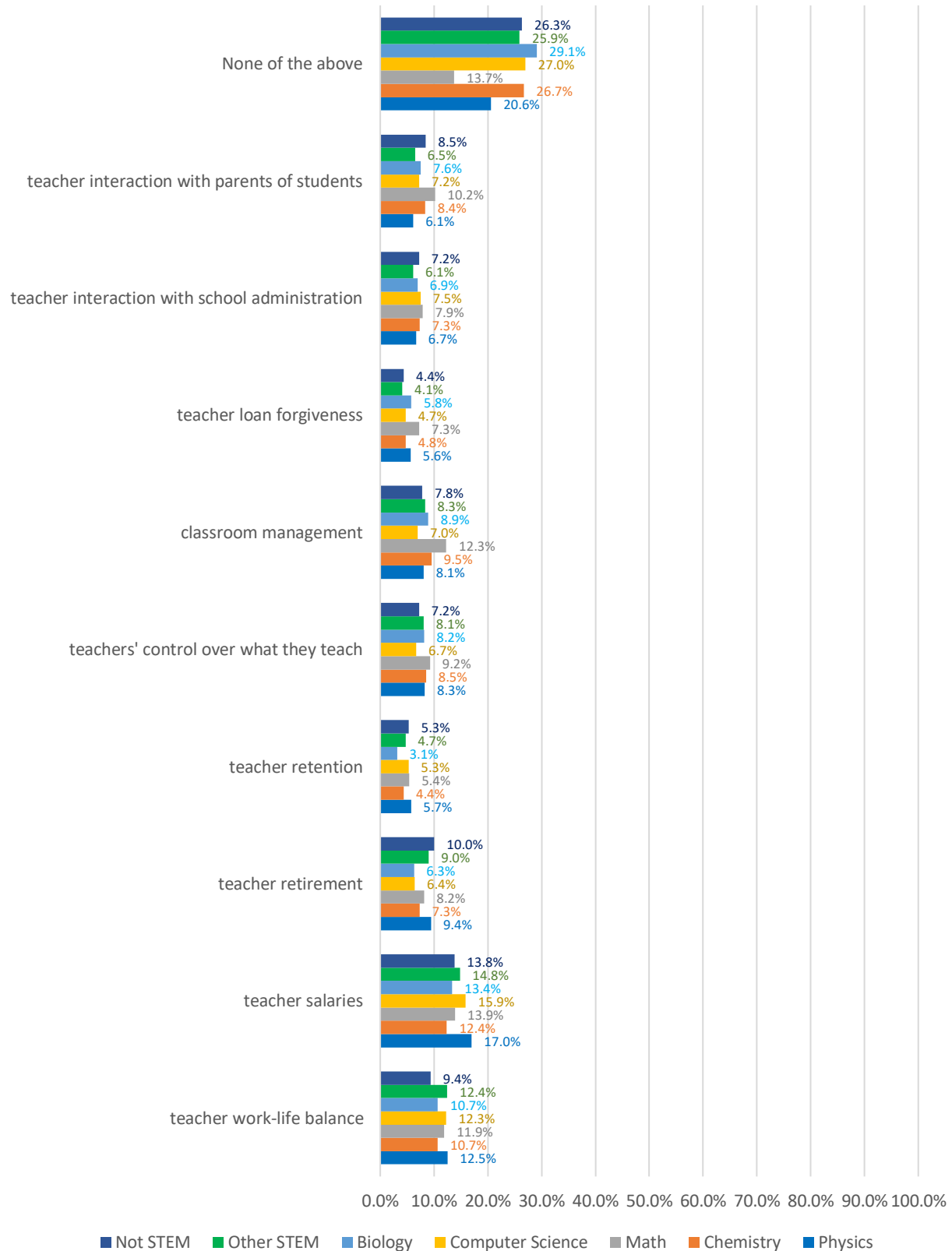


Students were asked whether they have heard a faculty member mention one of the options about grade 7-12 teacher below:

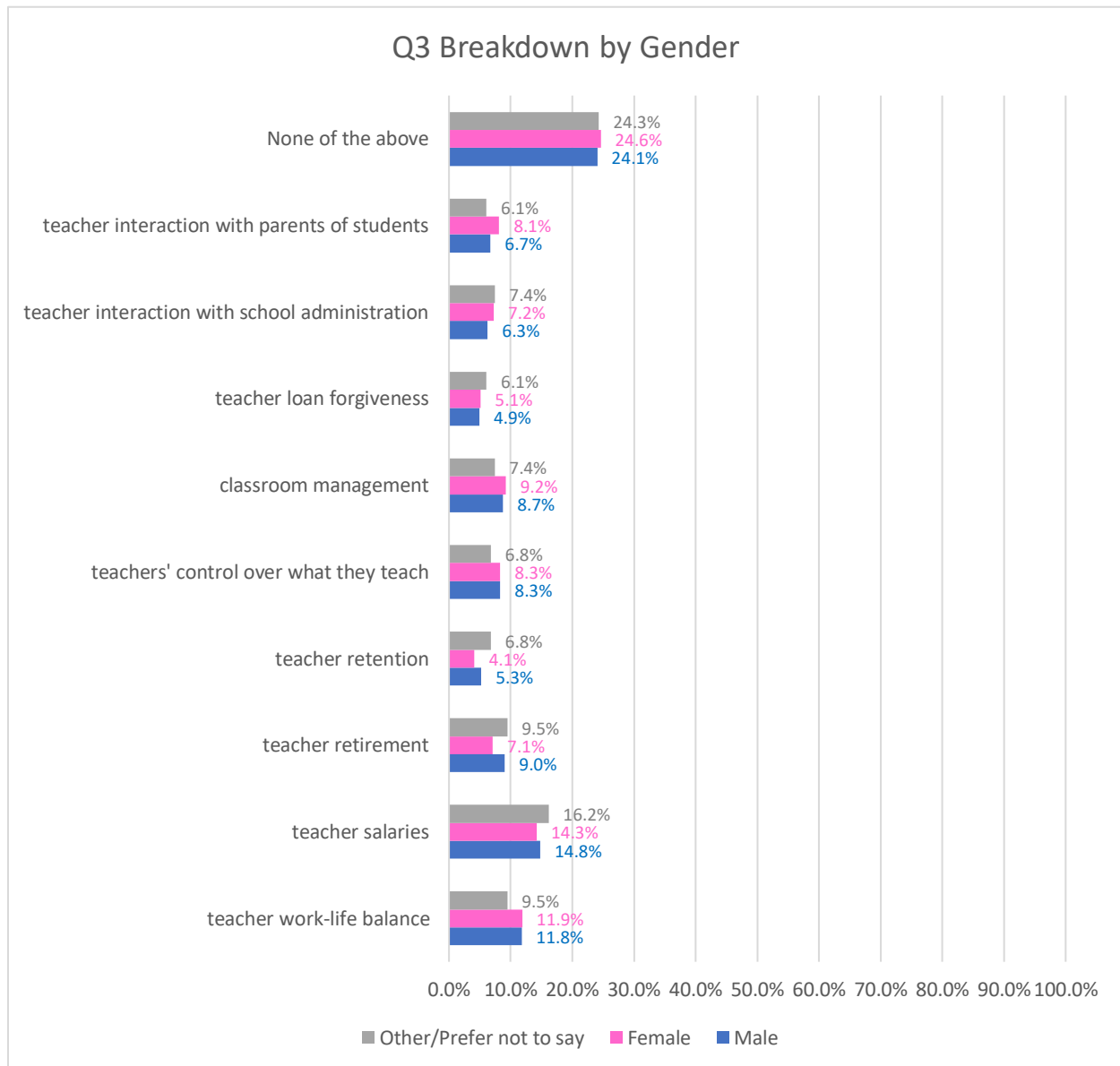


The majority of students have not heard any of the options listed above from a faculty member, but the most popular topics mentioned are teacher salaries and teacher work-life balance.

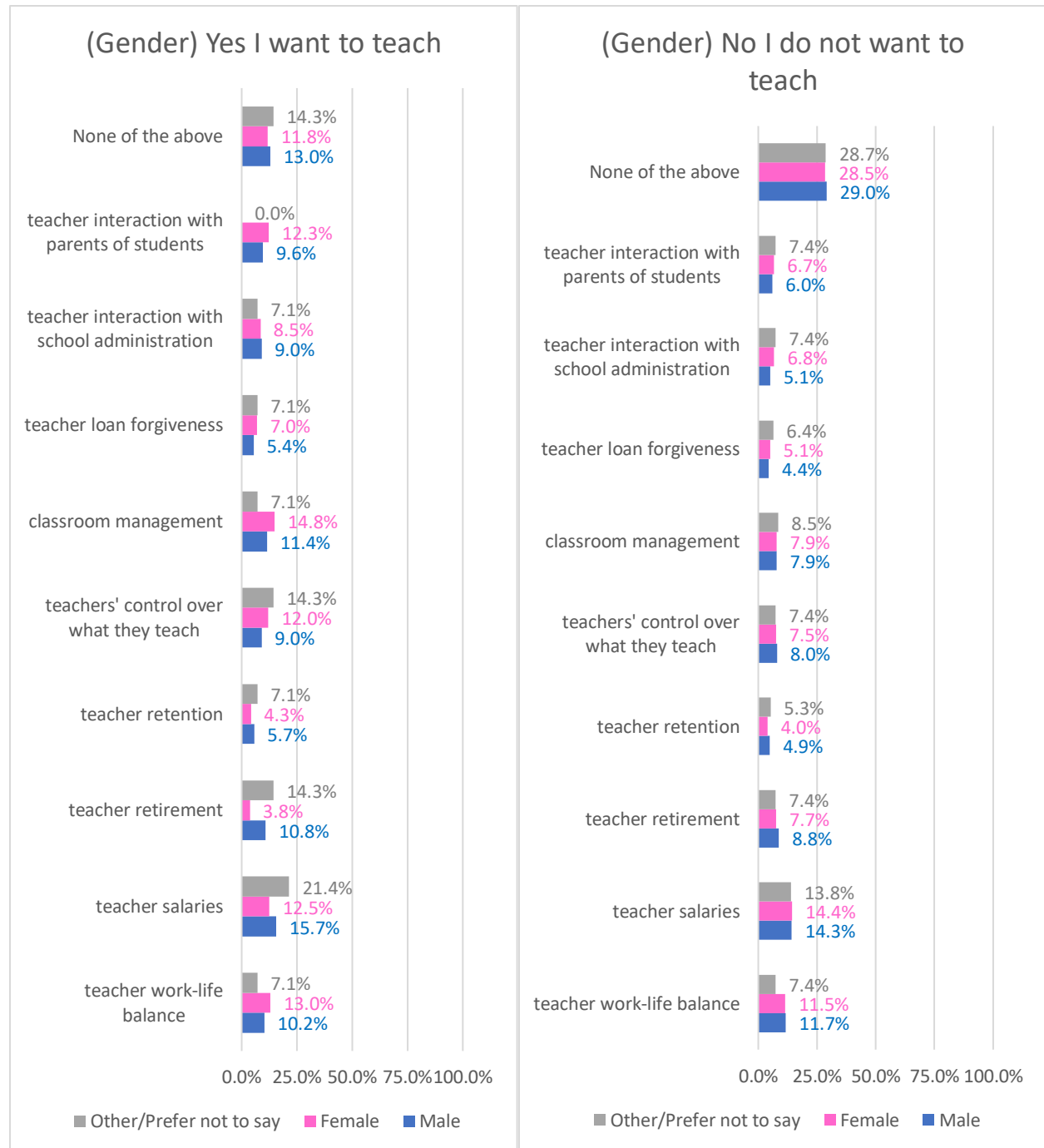
### Q3 Breakdown by Major



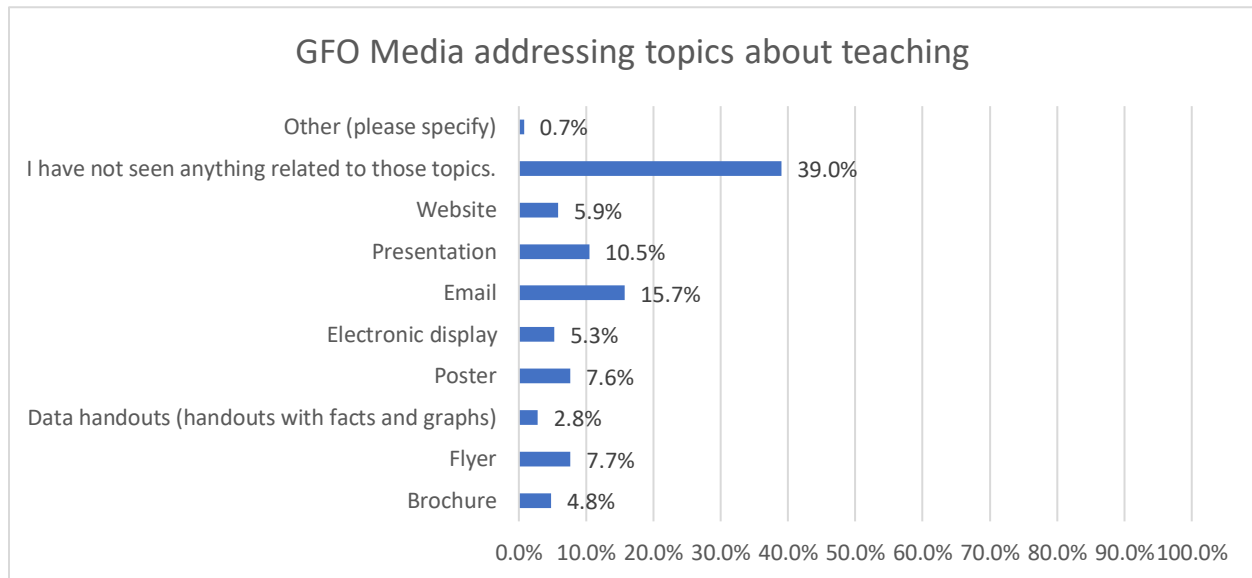
Have students heard a faculty member mention one of the topics about grade 7-12 teaching?



Have students heard a faculty member mention one of the topics about grade 7-12 teaching?



Students were then asked, within their department, have they had seen any media addressing the topics in the previous question.

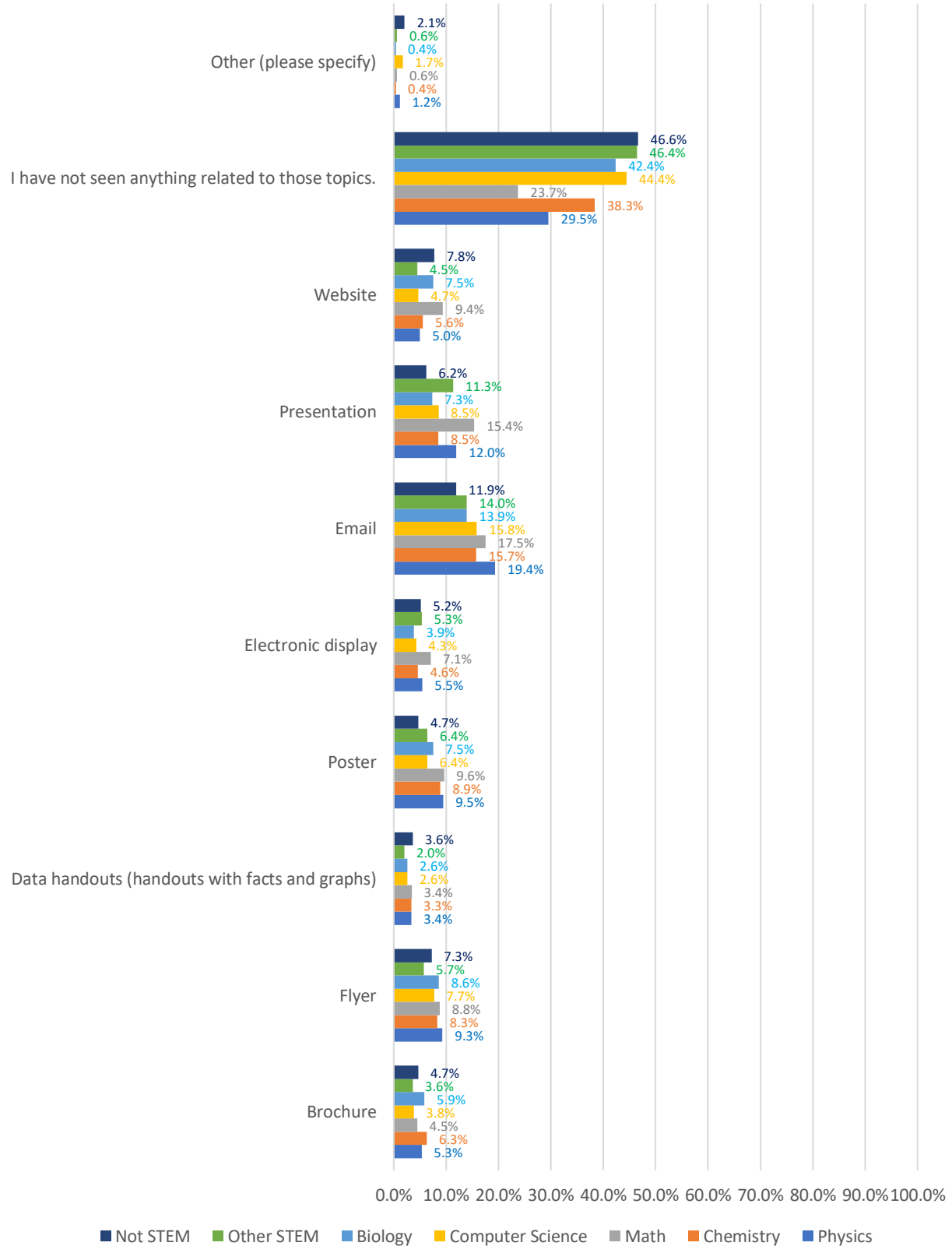


Similar to question 3, the majority of students said they have not seen anything related to the topics above. The most popular medias were Email and Presentations.

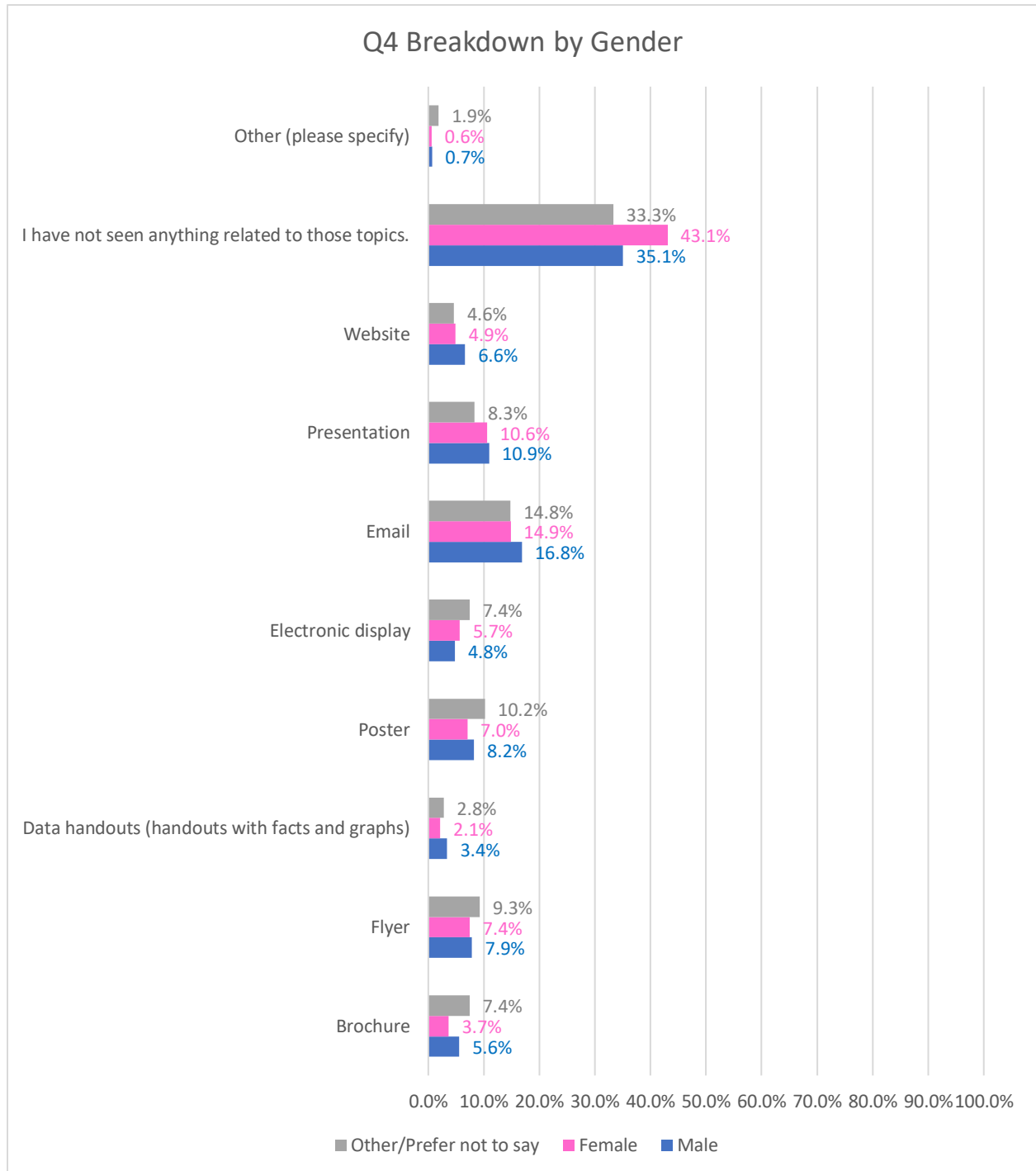
Other responses include:

- Mentioned in class/lecture – 5
- No/Don't remember – 5
- Word of mouth – 3
- Major/Organization fair – 2
- Casual conversations – 2
- A subsection of a presentation on different career paths briefly addressing teaching
- Part of a career choices workbook
- This survey every semester
- A TA mentioned they were in the education program
- Teach Houston gave a talk in class
- Jobs about K-12
- Course on career options
- Videos
- Just seeing it as majors

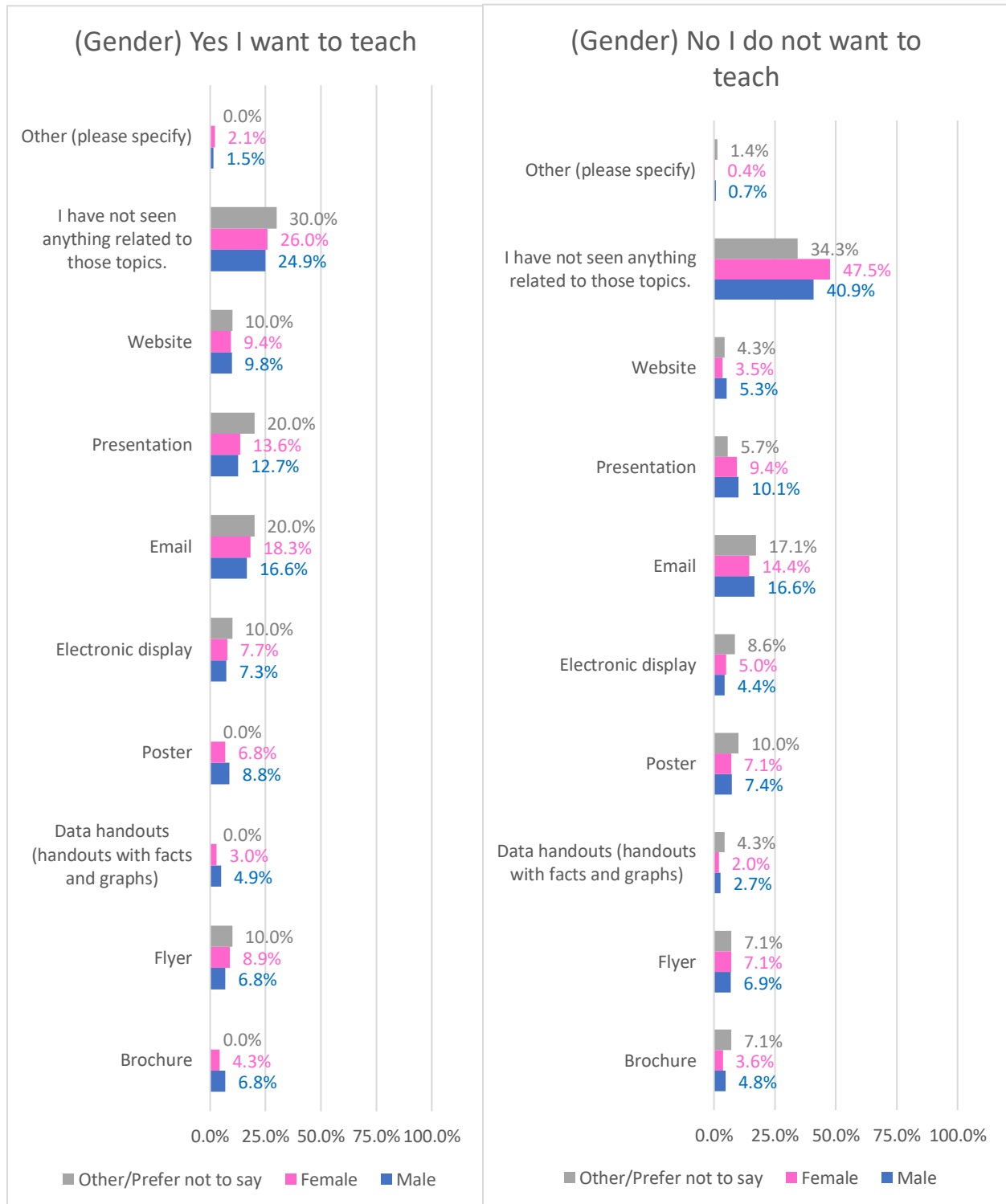
### Q4 Breakdown by Major



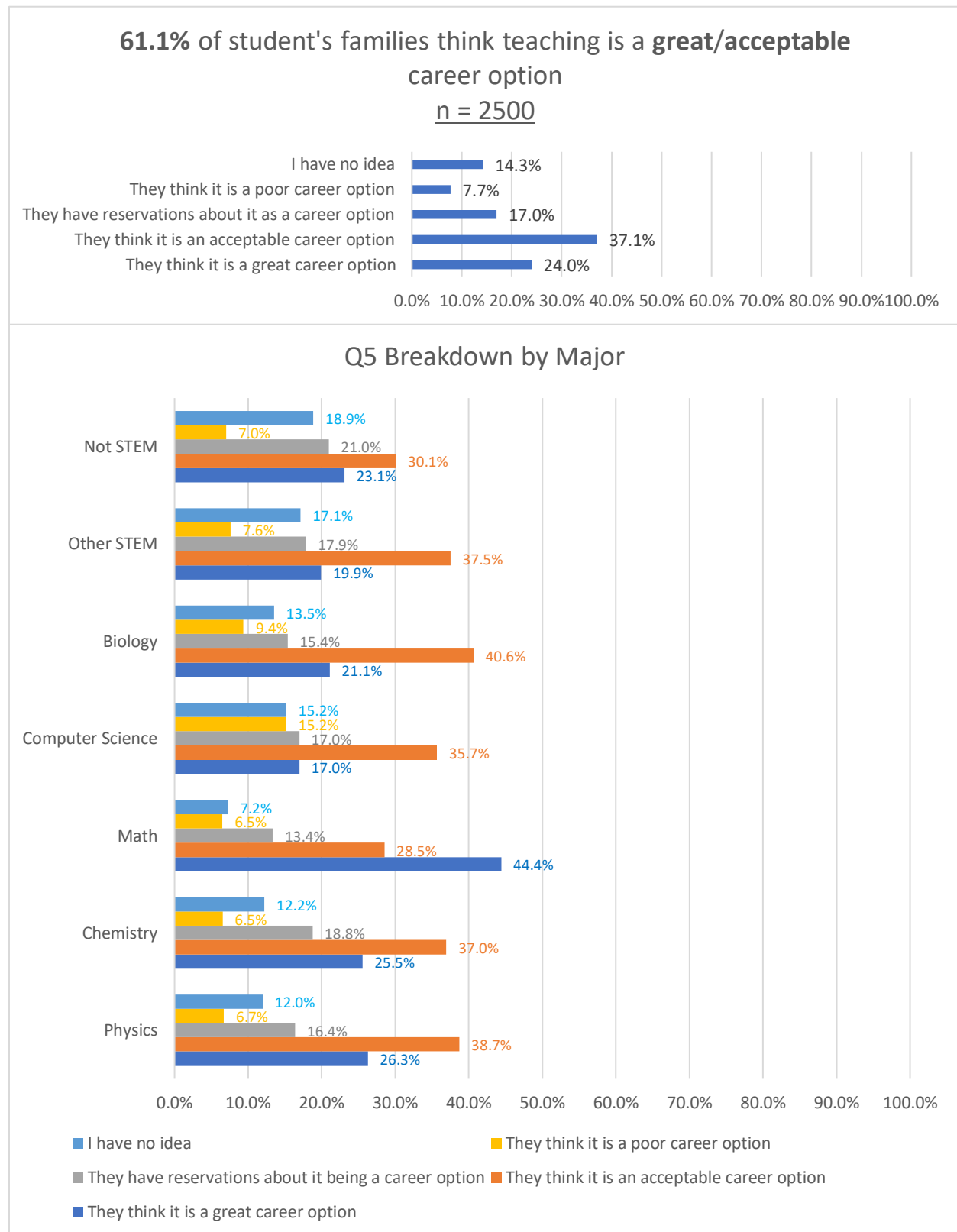
Within their department, have students seen any media addressing the topics in the previous question?



Within their department, have students seen any media addressing the topics in the previous question.



Students were asked how their families feel about grade 7-12 teaching as a career option.



## Explanations of what families think of grade 7-12 teaching

Male: n = 413 | Female: n = 374 | Other/Prefer not to say: n = 25

I have family members that are/were teachers .....	181	- 92	82	7
My family will support me for any career choice including teaching .....	148	- 81	65	2
Teachers do not make enough money/are treated poorly/overworked .....	144	- 71	70	3
I or my family does not want me to teach/want to pursue another career .....	91	- 44	44	3
Never asked/Not sure .....	65	- 34	24	7
Teaching is an acceptable profession, but there are better careers/more money outside of teaching .....	41	- 20	21	0
My family thinks it is a great/acceptable career .....	36	- 17	18	1
Not mine or my families first choice of career, but will still have support.....	35	- 17	17	1
I have family members that are/were teachers, BUT they do not support a career in teaching .	26			
10   14   2				
My family does not support teaching/think it is a poor career choice .....	17	- 9	8	0
Grade 7-12 teachers are needed and important.....	14	- 9	4	1
Teaching collegiate level is better than grade 7-12 .....	4	- 3	1	0
My family thinks going to an expensive school for a teaching degree is not worth it .....	4	- 3	1	0
Parents have high standards.....	3	- 2	1	0
My family supports teaching, but changes should be made to school system.....	3	- 1	2	0
Gender stereotype that women should be teachers .....	2	- 0	2	0

## Explanations of what families think of grade 7-12 teaching

### Students that want to teach

Male: n = 42 | Female: n = 53 | Other/Prefer not to say: n = 1

I have family members that are/were teachers .....	29	- 14	15	0
My family will support me for any career choice including teaching .....	23	- 11	12	0
Teachers do not make enough money/are treated poorly/overworked .....	14	- 6	8	0
My family thinks it is a great/acceptable career .....	6	- 2	4	0
I or my family does not want me to teach/want to pursue another career .....	6	- 1	4	1
Teaching is an acceptable profession, but there are better careers/more money outside of teaching .....	5	- 2	3	0
Never asked/Not sure .....	3	- 0	3	0
Not mine or my families first choice of career, but will still have support.....	3	- 1	2	0
Grade 7-12 teachers are needed and important.....	3	- 1	2	0
My family does not support teaching/think it is a poor career choice .....	2	- 2	0	0
Teaching collegiate level is better than grade 7-12 .....	1	- 1	0	0

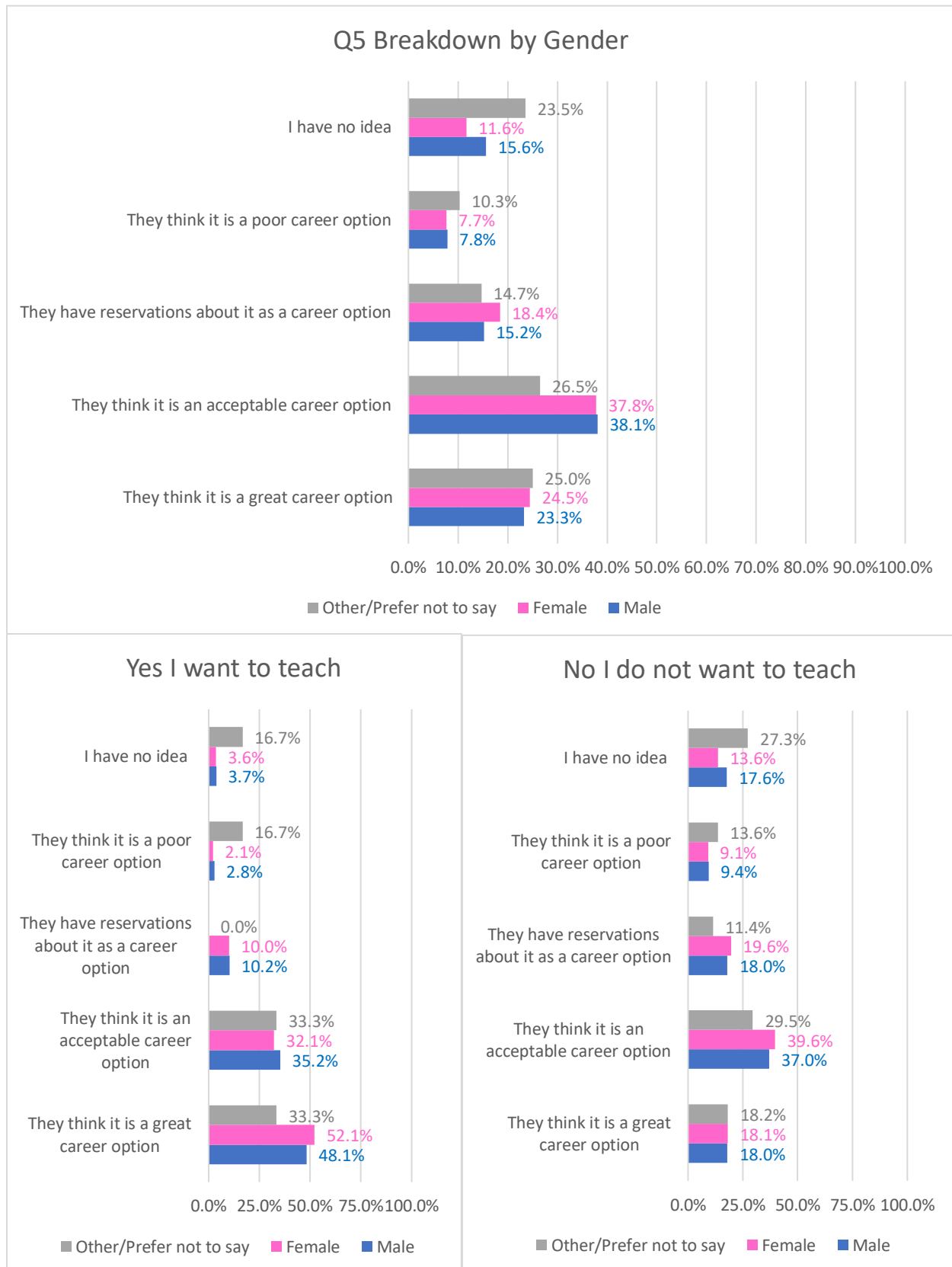
## Explanations of what families think of grade 7-12 teaching

### **Students that do NOT want to teach**

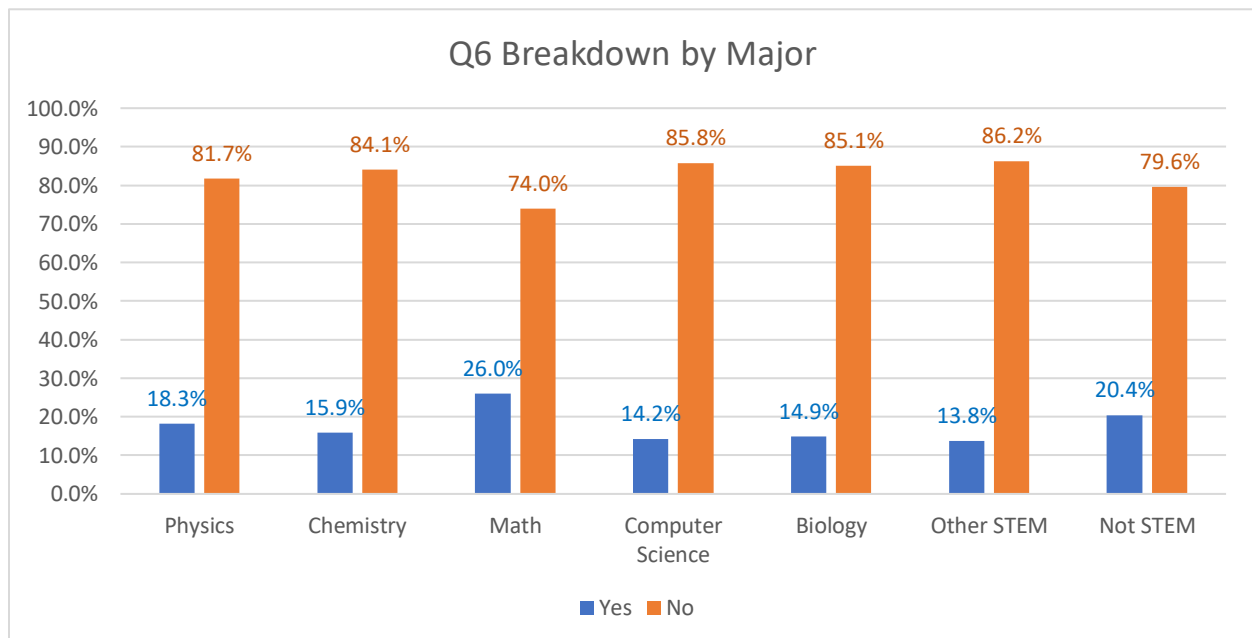
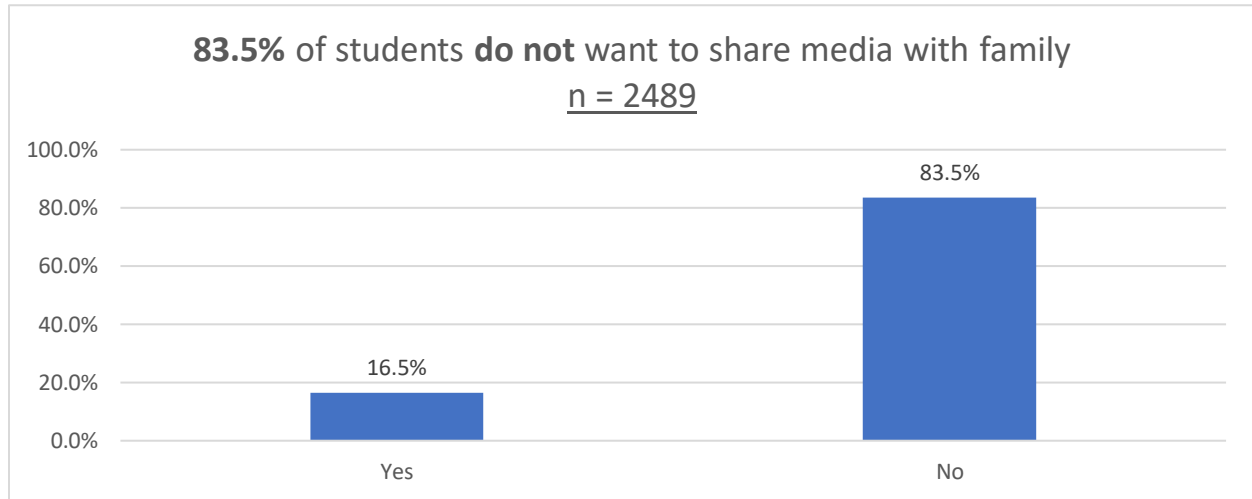
Male: n = 308 | Female: n = 263 | Other/Prefer not to say: n = 20

I have family members that are/were teachers .....	121	- 61	54	6
Teachers do not make enough money/are treated poorly/overworked .....	102	- 58	44	2
My family will support me for any career choice including teaching .....	100	- 53	46	1
I or my family does not want me to teach/want to pursue another career .....	77	- 43	34	1
Never asked/Not sure .....	49	- 29	15	5
Teaching is an acceptable profession, but there are better careers/more money outside of teaching .....	29	- 12	17	0
I have family members that are/were teachers, BUT they do not support a career in teaching .	25			
	10	13	2	
My family thinks it is a great/acceptable career .....	21	- 9	11	1
Not mine or my families first choice of career, but will still have support.....	16	- 12	3	1
My family does not support teaching/think it is a poor career choice .....	11	- 7	4	0
Grade 7-12 teachers are needed and important.....	11	- 7	3	1
Teaching collegiate level is better than grade 7-12 .....	3	- 2	1	0
My family thinks going to an expensive school for a teaching degree is not worth it .....	3	- 2	1	0
My family supports teaching, but changes should be made to school system.....	3	- 1	2	0
Parents have high standards.....	2	- 2	0	0
Gender stereotype that women should be teachers .....	2	- 0	2	0

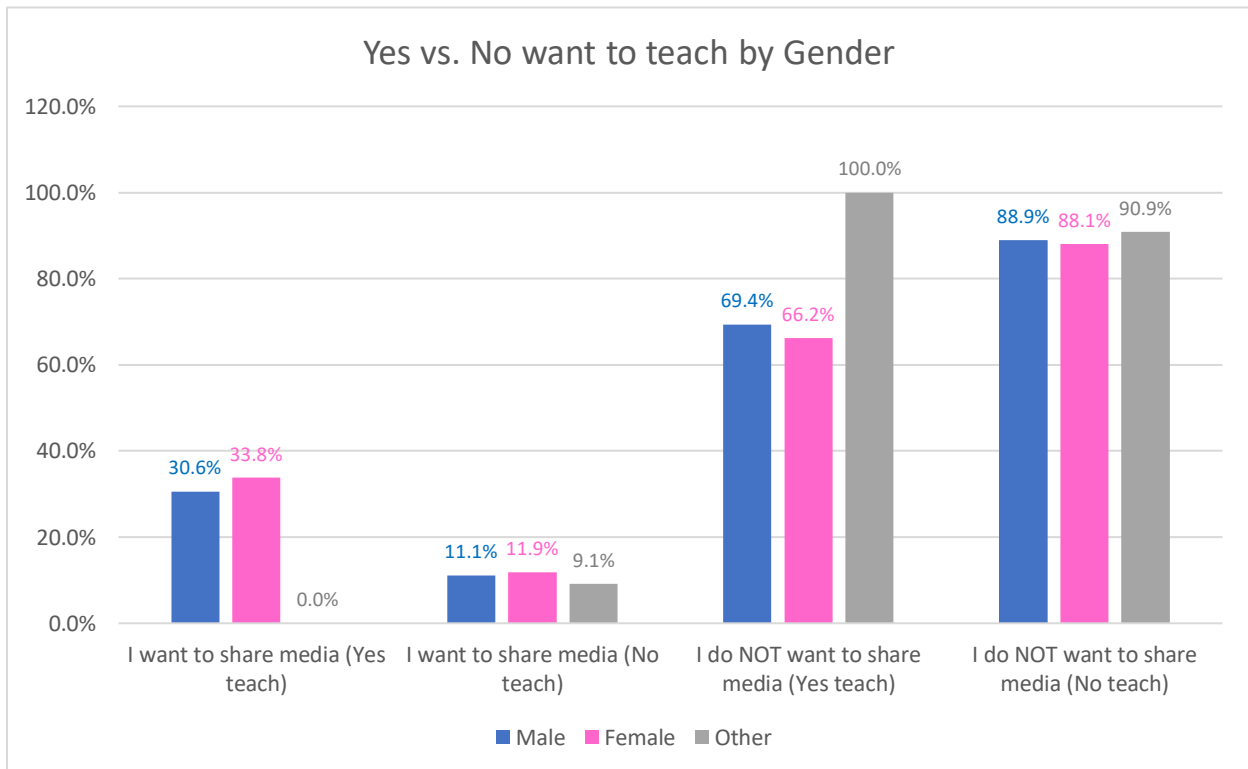
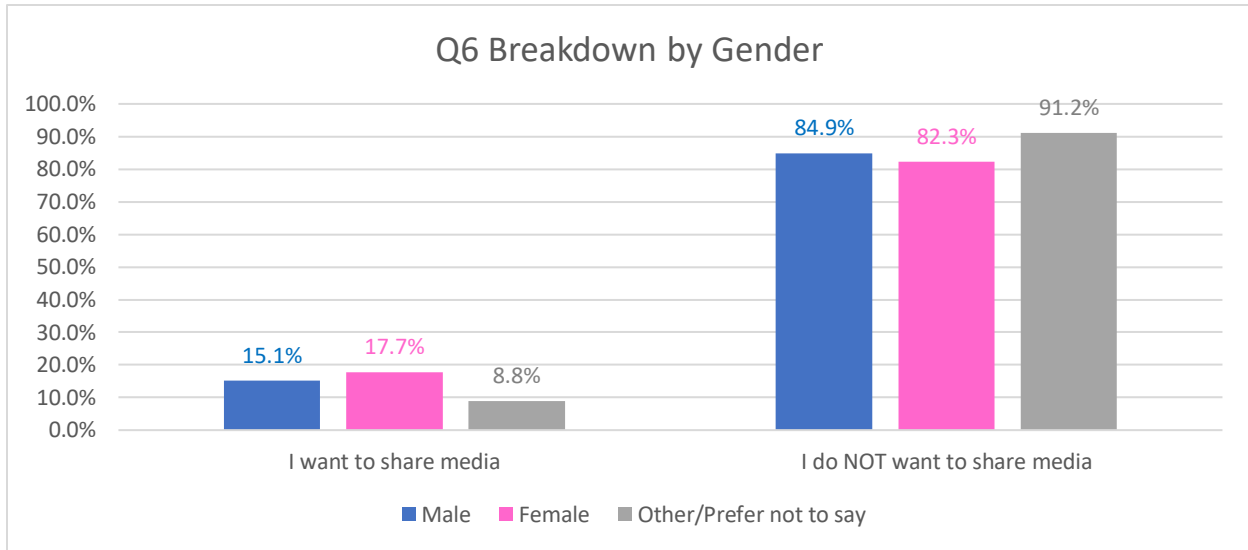
How do student's families feel about grade 7-12 teaching as a career option.



Students were finally asked if they would share any of the media relating to the topics in question 3 with their family.



Do students want to share any media relating to the topics in question 3 with their families?



## **Comments/Suggestions**

### **Positive:**

#### Teaching is a great career/More people should go into teaching – 10

- The stronger STEM teachers we have, the stronger the future students.
- I am completing my teaching certificate through teachHOUSTON and I could not be more excited. The professors are caring and it is an amazing profession to go into

#### Great survey - 7

#### Perceptions were changed positively – 4

- Changed a lot of my perceptions and made me think of stuff I hadn't considered
- Survey was really long, but extremely thorough. It actually got me to think about this as a possible career choice.

#### Want to learn more about teaching – 2

### **Negative:**

#### Low salary/benefits and unfair treatment – 25

- One of the largest stints on keeping quality teachers is low pay and no access to better benefits.
- Better options financially for STEM teachers
- The salary makes it a risk to pursue
- It is one of the least paid jobs and I have seen my mom slowly lose her love and passion for teaching due to lack of respect.
- We need to pay our teachers more rather than allocating the money to creating smaller class sizes
- I got a degree in math and it is hard for me to pick being a teacher when I can make twice the salary being an accountant
- I started as a teaching major but abandoned it because of the continual disrespect teachers get from administrations
- I do not believe becoming a 7-12 or even K-12 teacher is economically viable in the state of North Carolina. Someone needs to have an overwhelming passion to want to teach in this state.

#### Do not want to deal with administrative aspects/difficult to work with students who are uninterested – 6

- Teaching is great, it's everything else that pushes me away from wanting to teach: correcting assignments, standardized tests, discipline, kid's PARENTS, etc. With the way the school system is I am pushed away from wanting to teach.
- Most kids are not interested in chemistry, so I would be stuck with uninterested and unmotivated kids.

Other – 10

- Young people don't want to be teachers because they see how teachers are treated (especially during COVID) and how the current system doesn't prepare them to truly help students at all. Many are realizing that there are other ways to help the younger generation other than teaching.
  - The education system needs to make changes
  - Do not think it is a good career choice due to rapid automation (robots taking human jobs)
  - My university does not cover the behind the scenes of what it is like to be a teacher. (Benefits, programs, classroom management) – UW La Crosse
  - This has persuaded me to consider other career options
  - I have an issue with the diversity and inclusion initiatives. Merit based grading is the best way to cultivate the next generation of Americans to be the best they can be rather than forcing myself to curve grades for traditionally marginalized groups
  - School is all about rote memorization instead of learning. If learning was valued more than memorization, I would consider teaching as a career
  - So many better options than low paying teaching jobs. Youtube, Khan Academy, and other education media that isn't locked in. I don't want to be locked into educating people the same things over and over, but I would happily consider starting a youtube channel
- 
- I don't understand the point of surveying the marketing of grade 7-12 teachers in college campuses this heavily. A 7-12 teaching career is marketed as less risky and more stable. I wonder if ivy league schools like MIT or Harvard take this survey. Before you answer, question the motives behind the response.
  - Waste of my time. High school teachers are just babysitters who are too dumb or lazy to pursue a PhD to become a college professor. Why on earth would you choose a profession where you know you are going to be under paid and underappreciated for your entire career? Sounds like you need to go to school and educate yourself on real careers with competitive salaries instead of chasing some participation trophy pipedream.

### Neutral:

#### Teaching is a great career, but it is not for me – 20

- Teaching is a great career and I want to see more people do it, but I just don't think it is the right fit for me and my skillset
- I respect those who teach, but it is not what I am passionate about
- Being a teacher is great for society; however, I was inspired by my teachers to change the world and I believe I cannot do that by being a teacher.

#### Specific survey feedback – 8

- Less questions
- Make it a little shorter to retain attention and add more text boxes for easier detailed analysis
- This was semi-insulting to 7-12 teachers and students moving into the profession. It felt like the questions that seemed bias against going into a teaching career.
- The questions are too long, maybe plan on reducing the length
- I believe this survey would be more comprehensive if there was a section of questions concerning resources and dilemmas teachers have as well. For example, more money budgeted for classrooms to be able to afford to do experiments and get equipment, money for updated textbooks, issues with increasing class sizes, how standardized testing plays into what is taught, its importance in comparison to other material in the class, and how it is being tested.
- Instead of entertain, it should be worded engage (I believe this comment is referring to the question: You cannot be a good teacher unless you can entertain
- One of the first pages had a question asking me what percentage of teachers had something (I can't remember what it was), but I didn't know the answer and so didn't answer it. Perhaps rephrase it with "What do you think the percentage is?"
- In question 22 you asked what fraction instead of what percentage
  - These 2 comments are talking about: What fraction of grade 7-12 teachers remain in the profession at 5 years?

#### I want to teach and do research simultaneously – 3

- I want to continue doing research while I teach, but I doubt non-university schools would allow that. If there are, I would like to know ([tjc00018@mix.wvu.edu](mailto:tjc00018@mix.wvu.edu))

I have had one professor talk about grade 7-12 teaching – 3

- Gettysburg college
- Florida State University
- University of Central Florida

Other – 13

- Some schools are easier to work for than others
- Some students interested in teaching prefer getting a graduate degree to work as university professors instead of grade 7-12
- I would have loved to get a teaching certification, but I have too many course requirements for my major
- The survey is interesting. However, grade 7-12 is a large gap! If the grades were from 9-12, then I can answer more clearly.
- Is it possible to receive information regarding 7-12 STEM teachers, their benefits, how to get certificated....etc? ([CSULB](#))
- I think professors should be required to take a course in teaching. Most professors are clearly only a professor so that they can perform research. Students deserve better.
- I really do wish there was more info readily available on STEMTeach and other teaching programs. No one person is ever able to answer all the questions I have ([University of Kansas](#))
- I think there are definitely students in my field of chemistry and biochemistry that do want to pursue teaching grades 7-12, but because chemistry can get quite specialized later on, many choose to become college professors instead simply because they can pick a more specialized area to work in, not because they don't find teaching 7-12 grades fulfilling or resepectable.
- I used to be a physics student, and if I were to answer based on my experience in that department, the answers would be a lot different. Ex. I only knew one professor that ever really advocated for students to enter the profession. Everybody else pushed research or engineering.
- Teaching can never be a viable field again until more autonomy is returned to the teachers and common core is dismantled. Corporate interests have no place in the class room.
- I think education really needs to reconsider EdTPA requirements because many students miss the benefits of student teaching due to their focus on this process.
- My answers are negative not because i think K-12 teaching is a bad idea, but because i have been pressured into thinking of a career as secondary to being a housewife/mother, and being a teacher is the #1 way people try to convince me of that.
- I think teaching done right is amazing but standardization is some of the most twisted and counterintuitive ways to teach our next generation.