



2022|23 Year 4

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 grades 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, flyers, etc.*

Demographics

Student Gender Information (n = 1537)		
Gender	Respondents	Percentage
Male	744	48.4%
Female	742	48.3%
Other	51	3.3%
Total	1537	100.0%

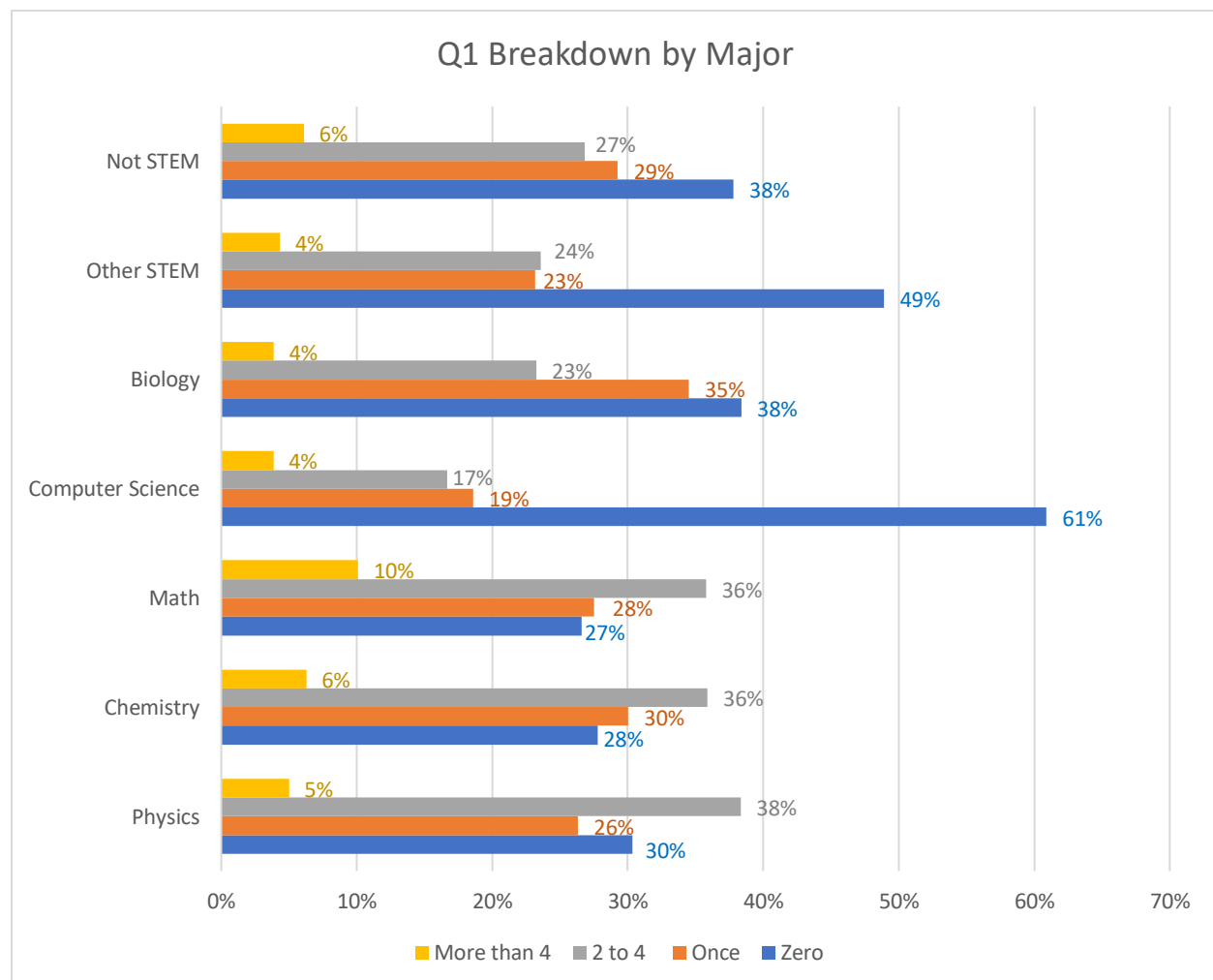
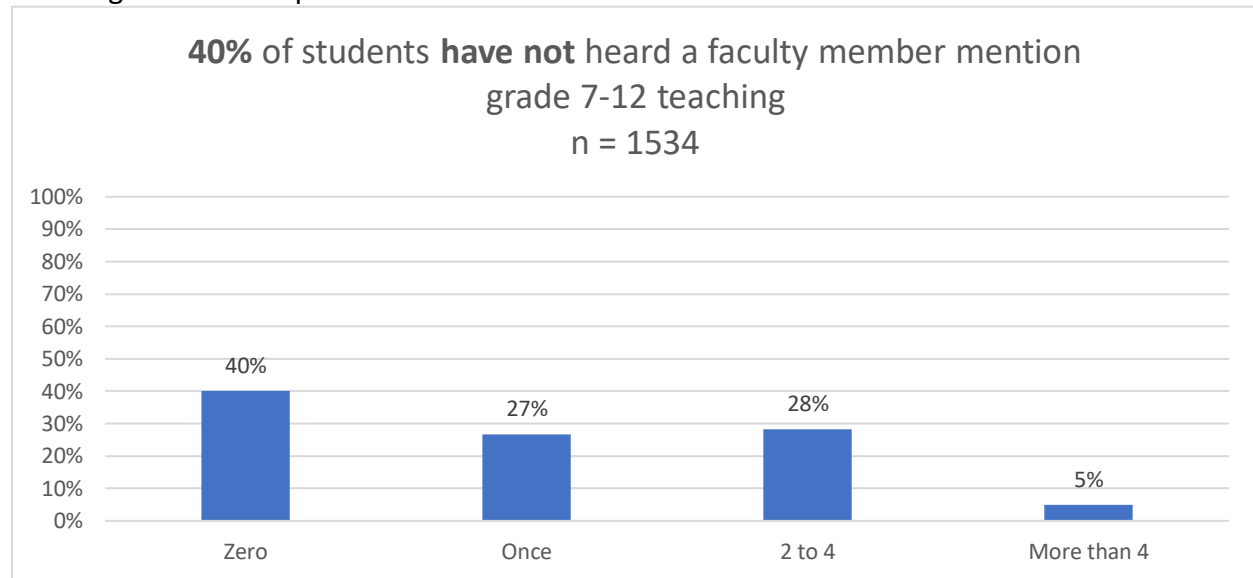
Student Department Information (n = 1683)		
Department	Respondents	Percentage
Math	109	6.5%
Chemistry	223	13.2%
Physics	301	17.9%
Comp. Science	159	9.4%
Biology	289	17.2%
Other	602	35.8%
Total	1683*	100.0%

*This total counts people who selected multiple options

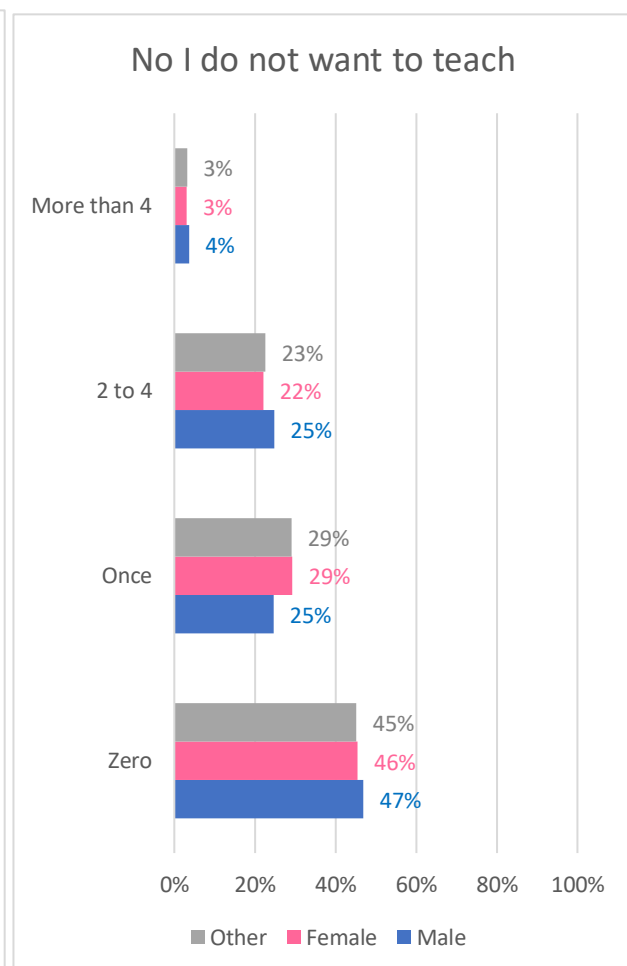
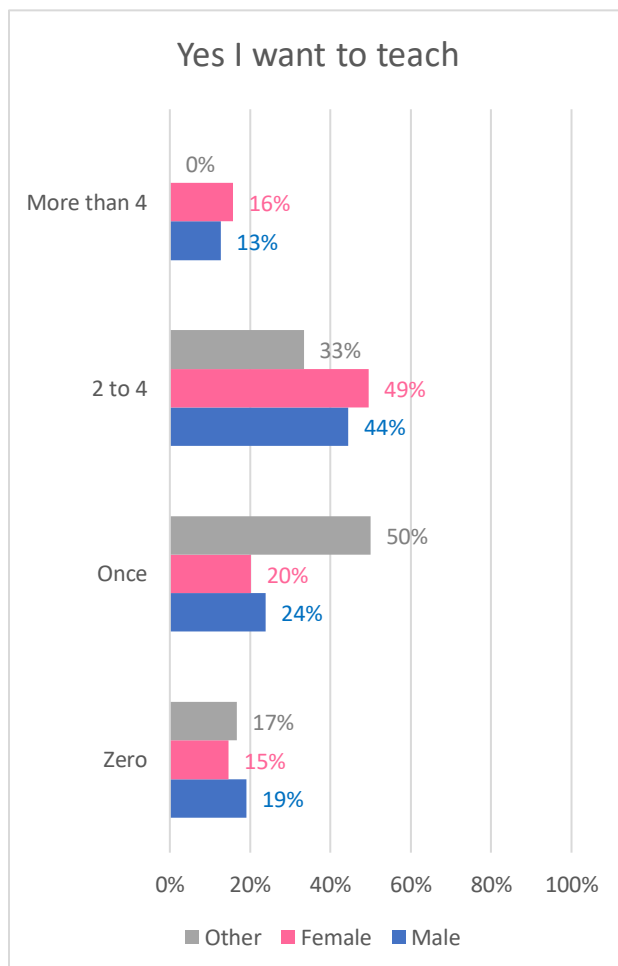
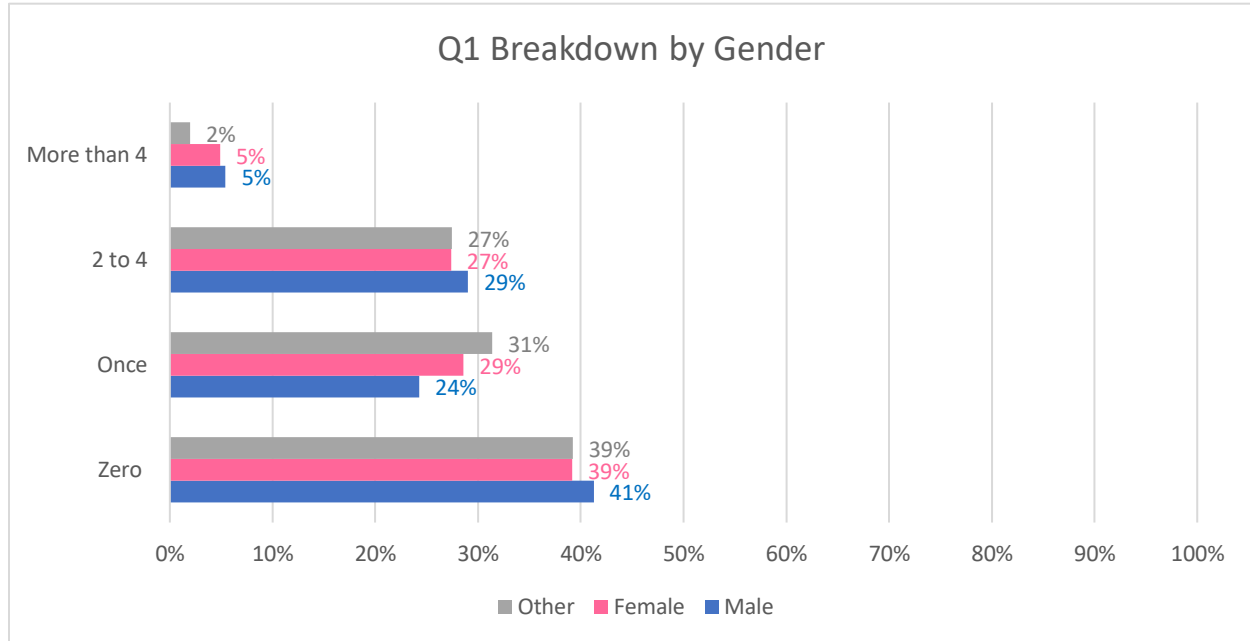
Student Race/Ethnicity Information (n = 1714)		
Race/Ethnicity	Respondents	Percentage
White/Caucasian	977	57.0%
Black/African American	335	19.5%
Hispanic/Latino	165	9.6%
Asian/Asian American	149	8.7%
American Indian/Alaska Native	16	0.9%
Native Hawaiian/Other Pacific Islander	6	0.4%
Middle Eastern/North African	28	1.6%
Prefer not to say	26	1.5%
Other	12	0.7%
Total	1714*	100.0%

*This total counts people who selected multiple options

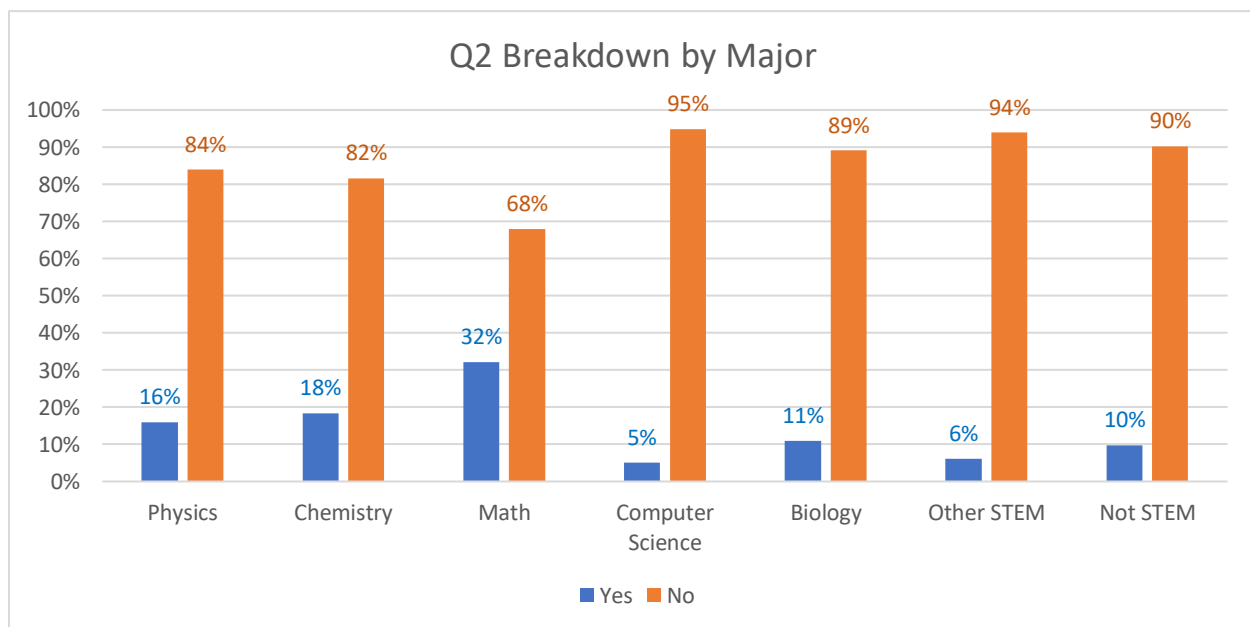
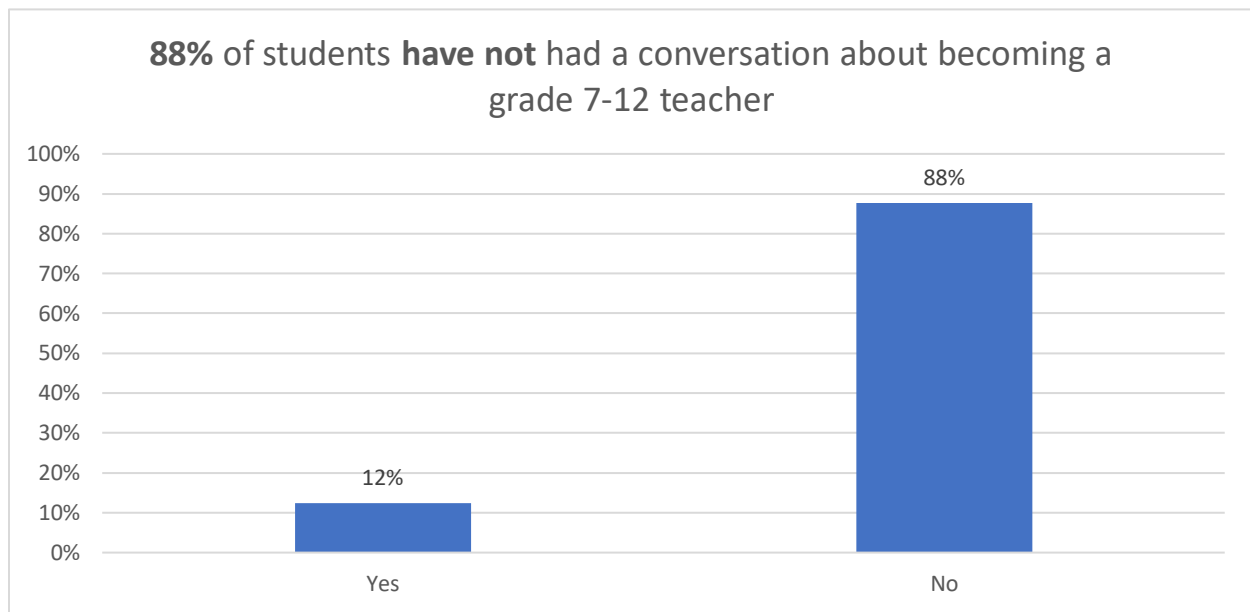
Students were asked how many faculty members they remember hearing mention grade 7-12 teaching as a career option.



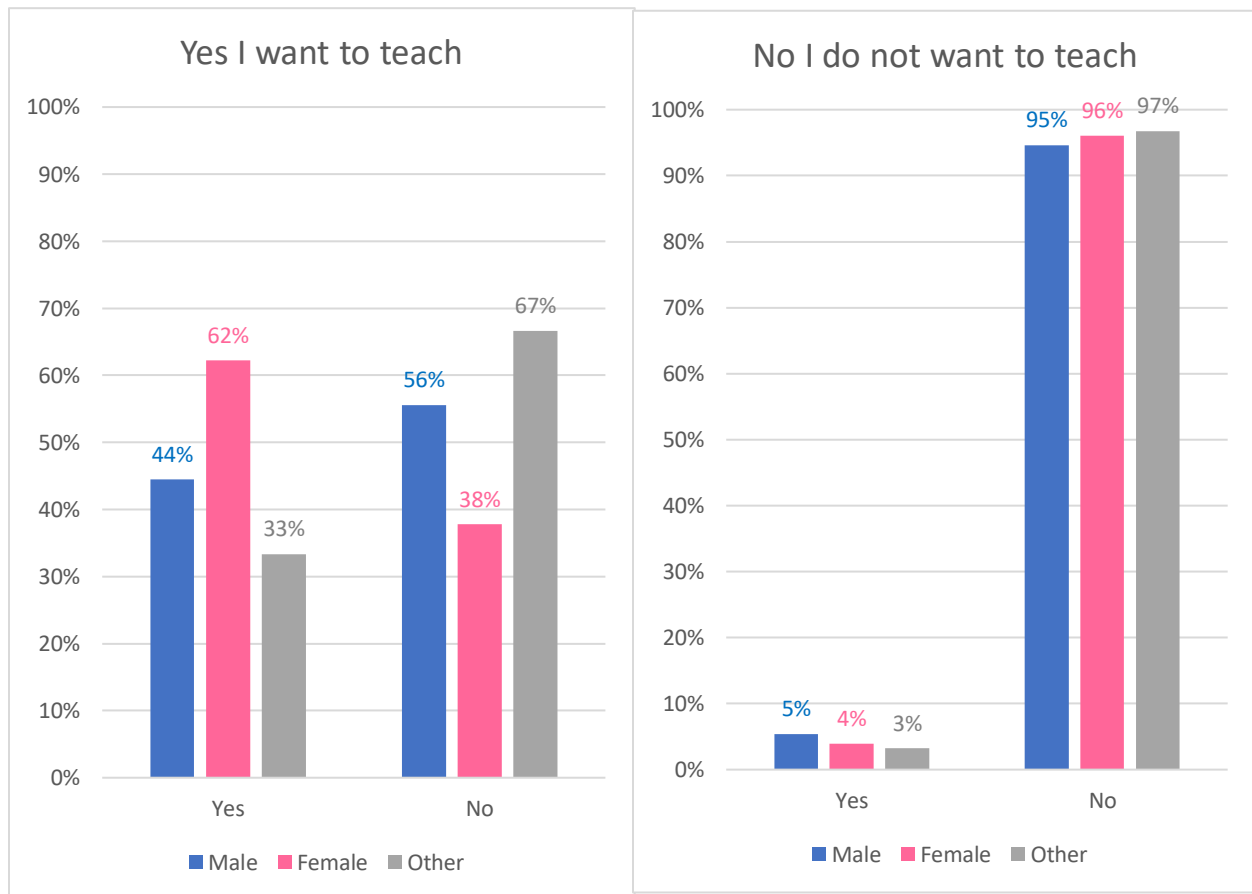
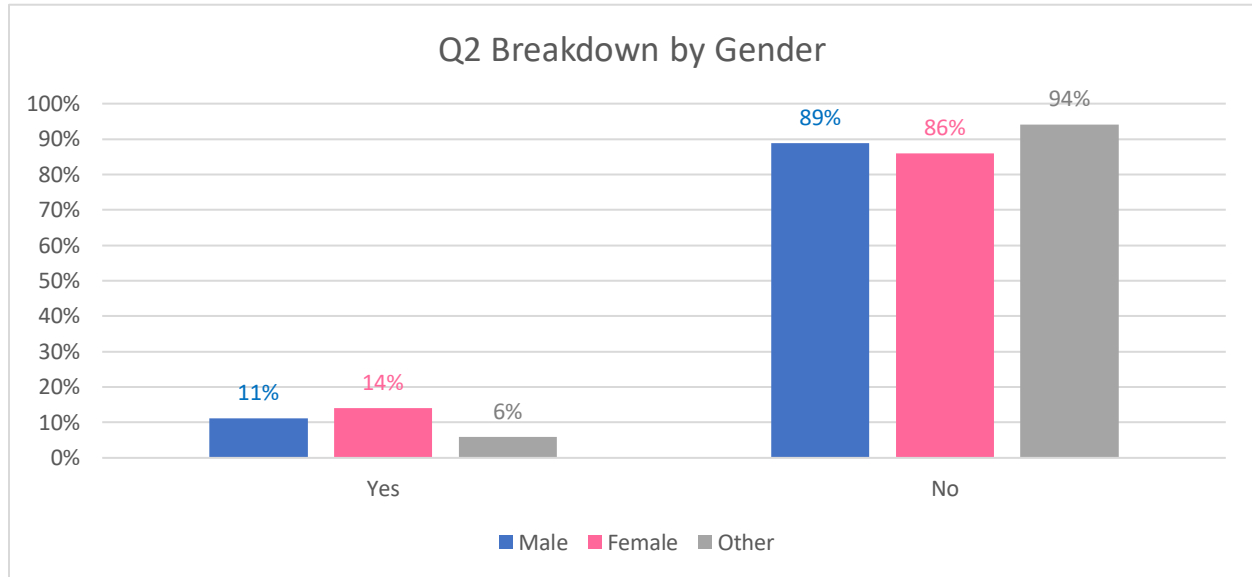
How many faculty members have mentioned grade 7-12 teaching as a career option?



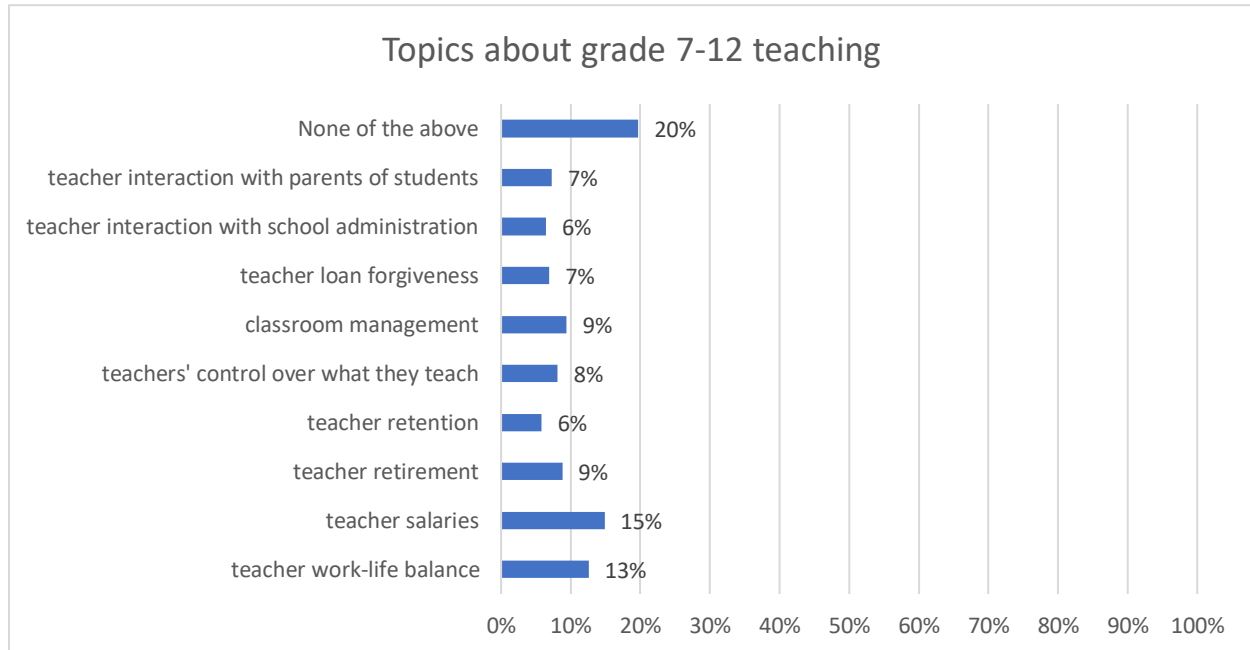
Students were then asked whether they had had a conversation about becoming a grade 7-12 teacher.



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

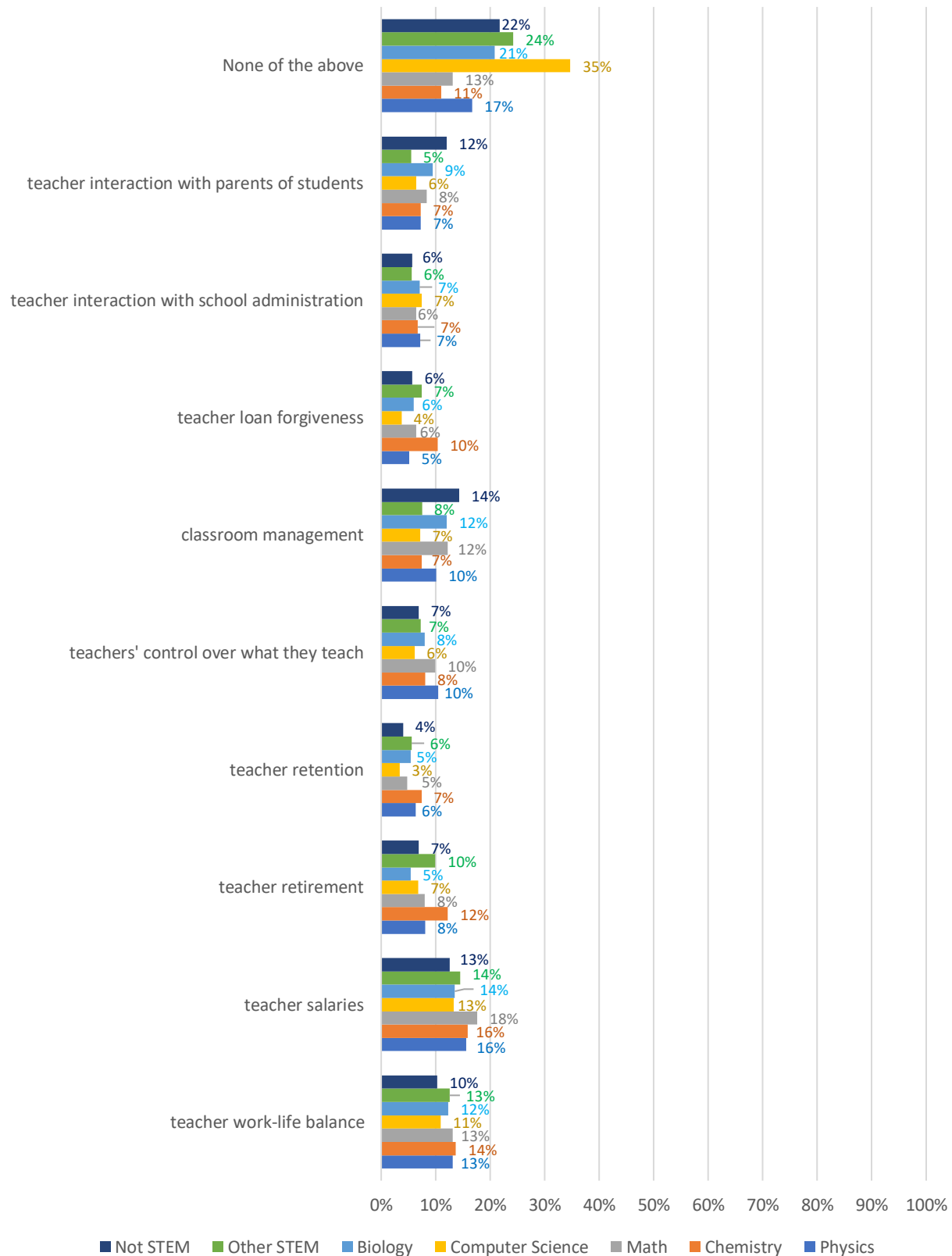


Students were asked whether they had heard a faculty member mention one of the options about grade 7-12 teachers below

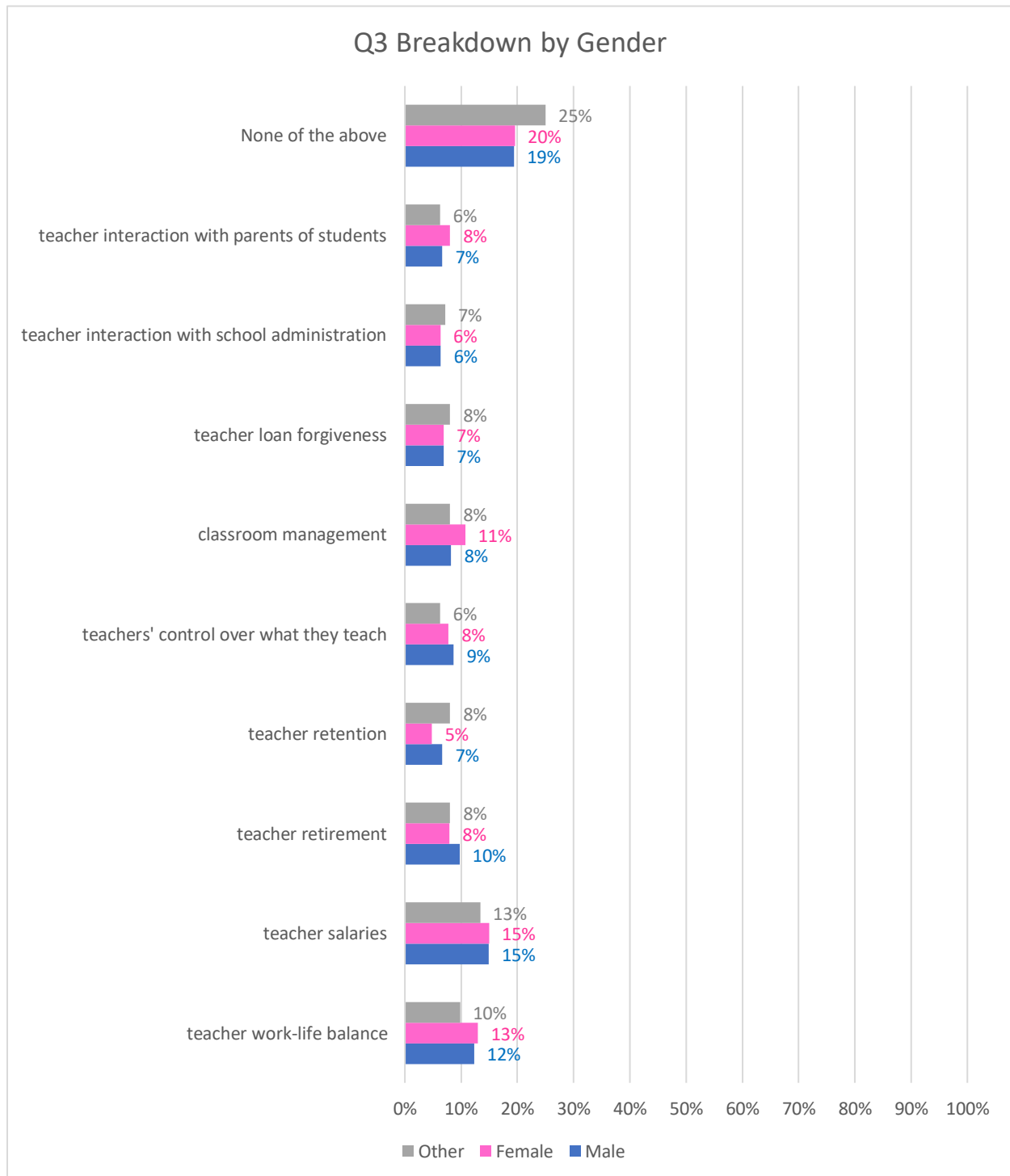


The majority of students have not heard any of the options listed above from a faculty member, but the most popular topics mentioned are teacher salaries and teacher work-life balance.

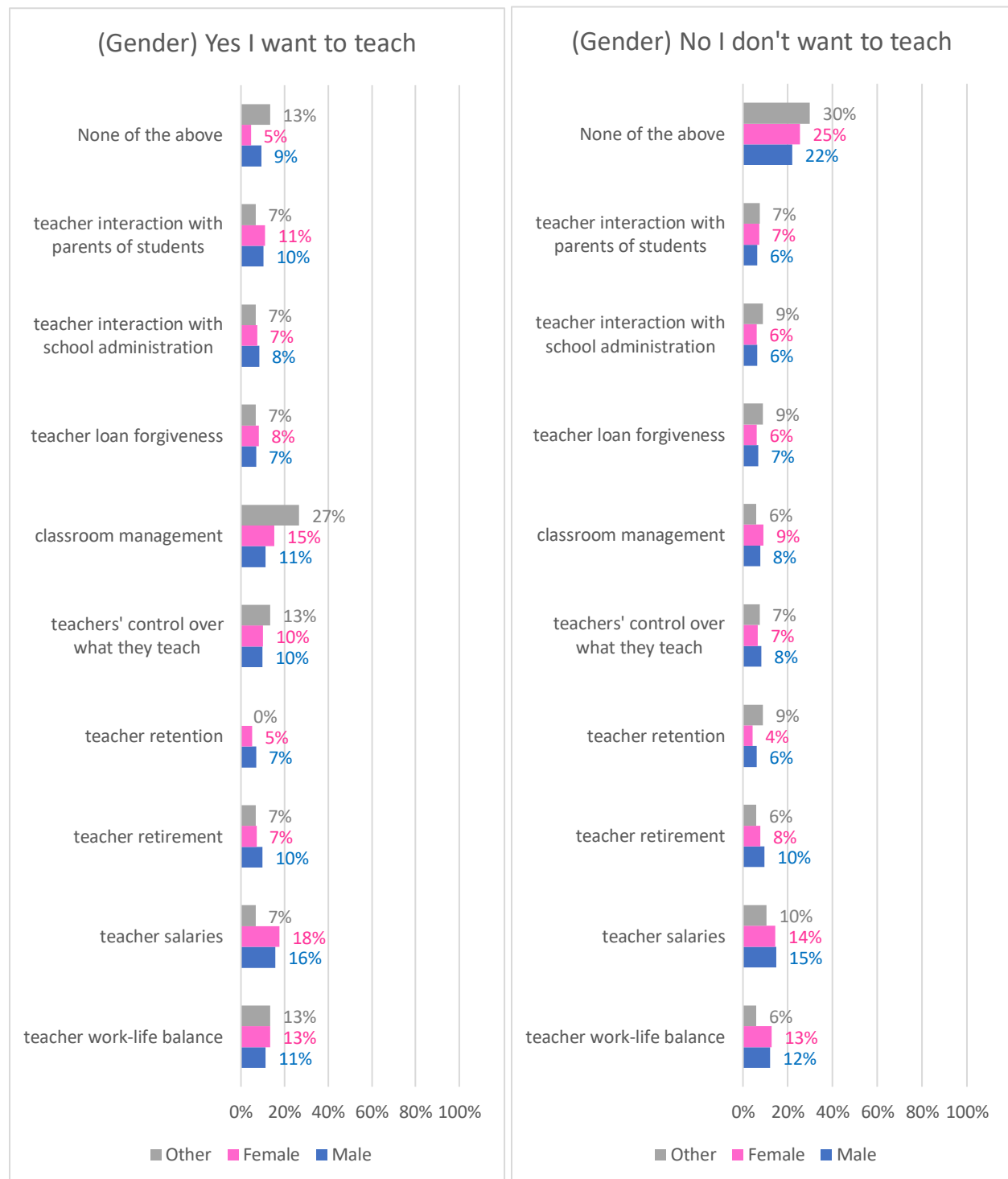
Q3 Breakdown by Major



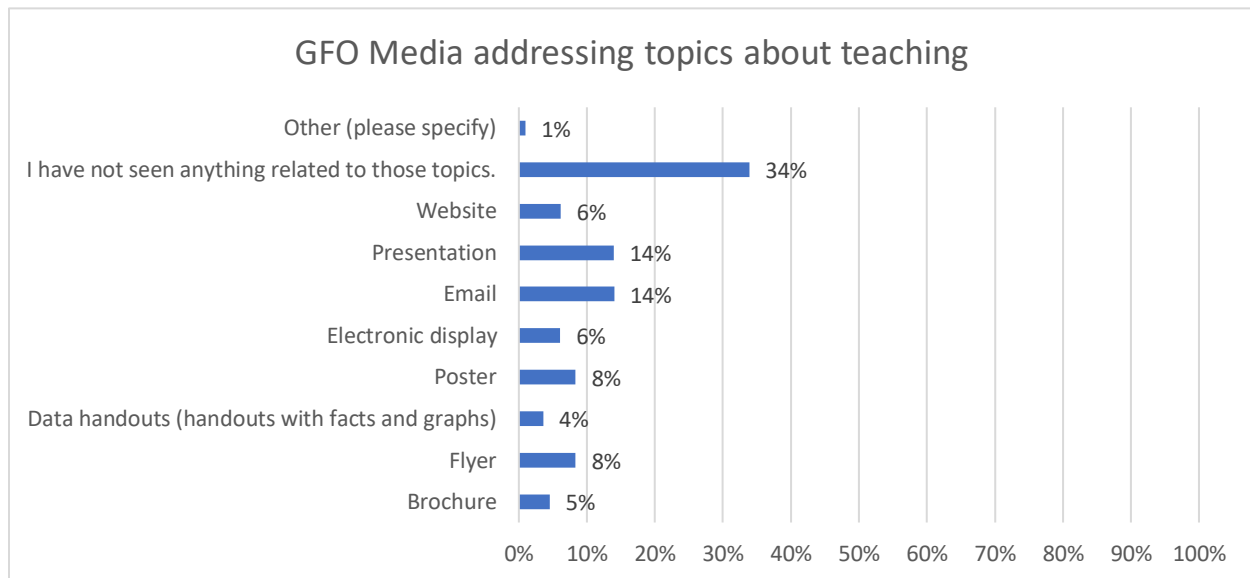
Have students heard a faculty member mention one of the topics about grade 7-12 teaching?



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 seen any media addressing the topics in the previous question.

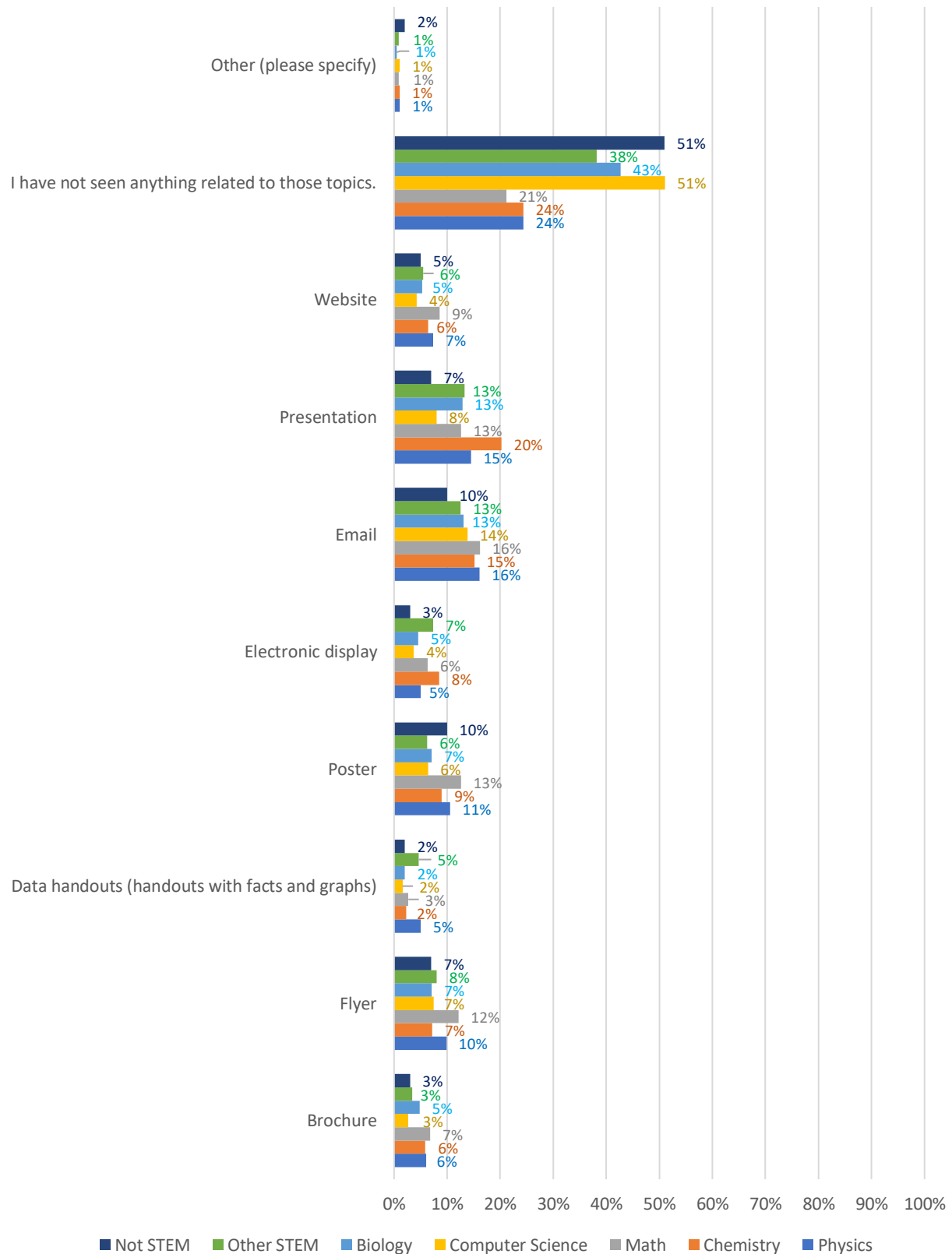


Similar to question 3, the majority of students said they have not seen anything related to the topics above. The most popular medias were Email and Presentations.

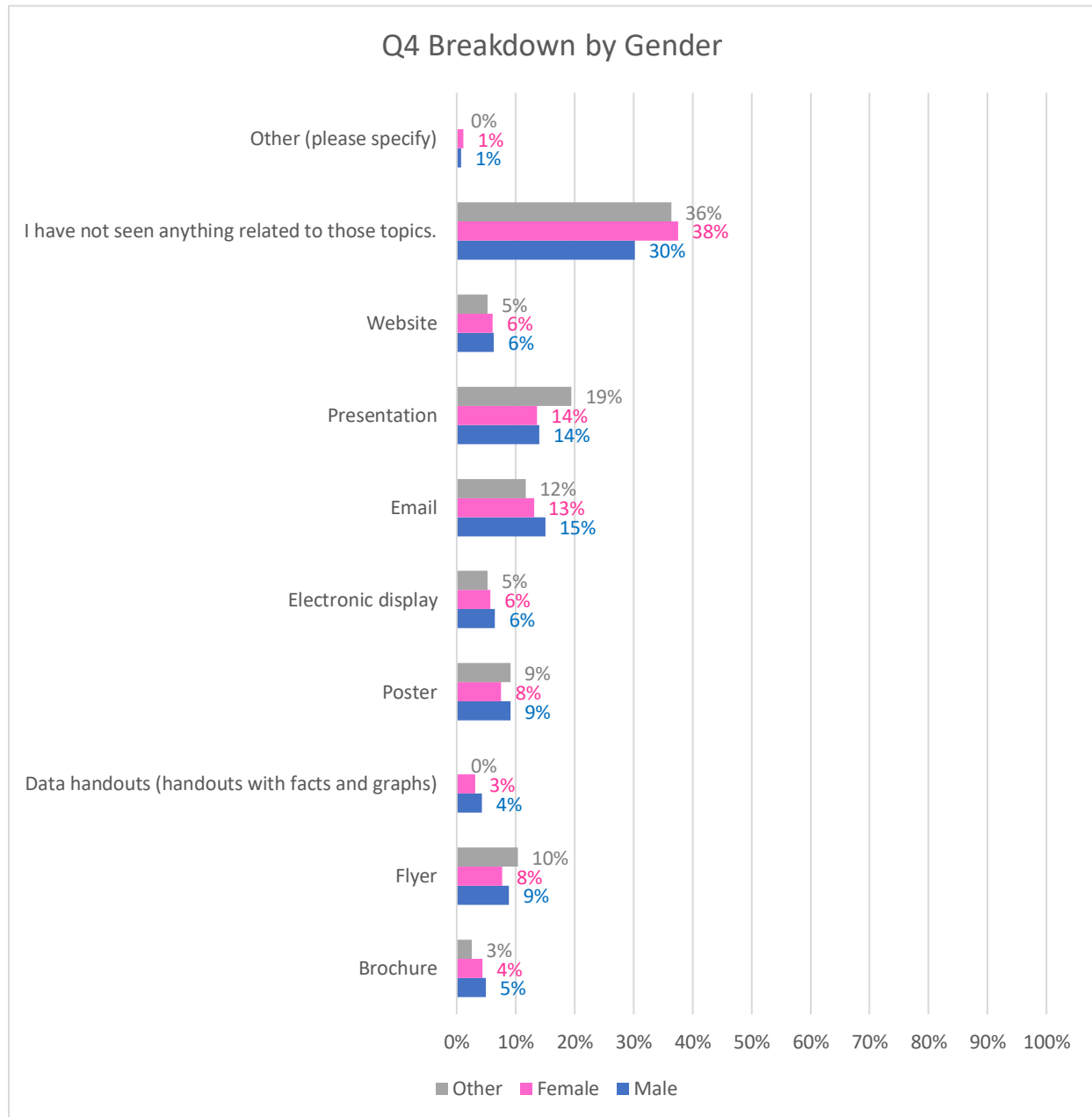
Other responses include:

- None – 4
- Don't remember – 3
- In class – 2
- Article – 2
- Educational video – 2
- Conversations with faculty – 2
- These surveys
- Social media
- Reading Assignment
- FSU program that gets your teaching certification with your BS/BA
- Podcasts, Newspapers
- I have not looked because I'm not interested

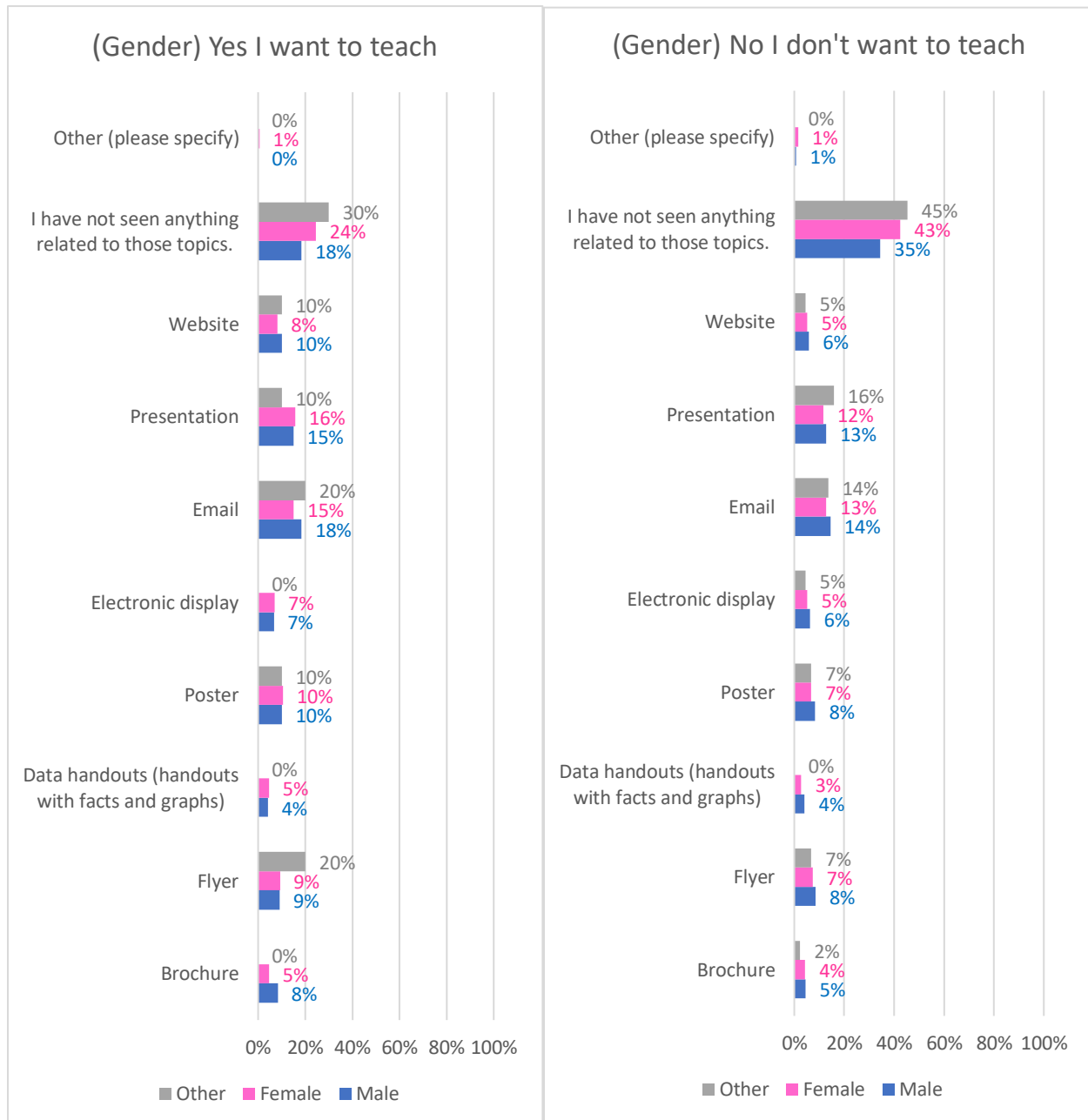
Q4 Breakdown by Major



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

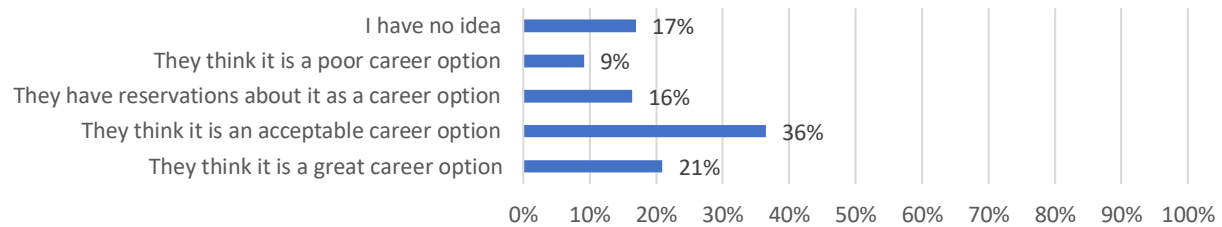


Within their department, have students seen any media addressing the topics in the previous question

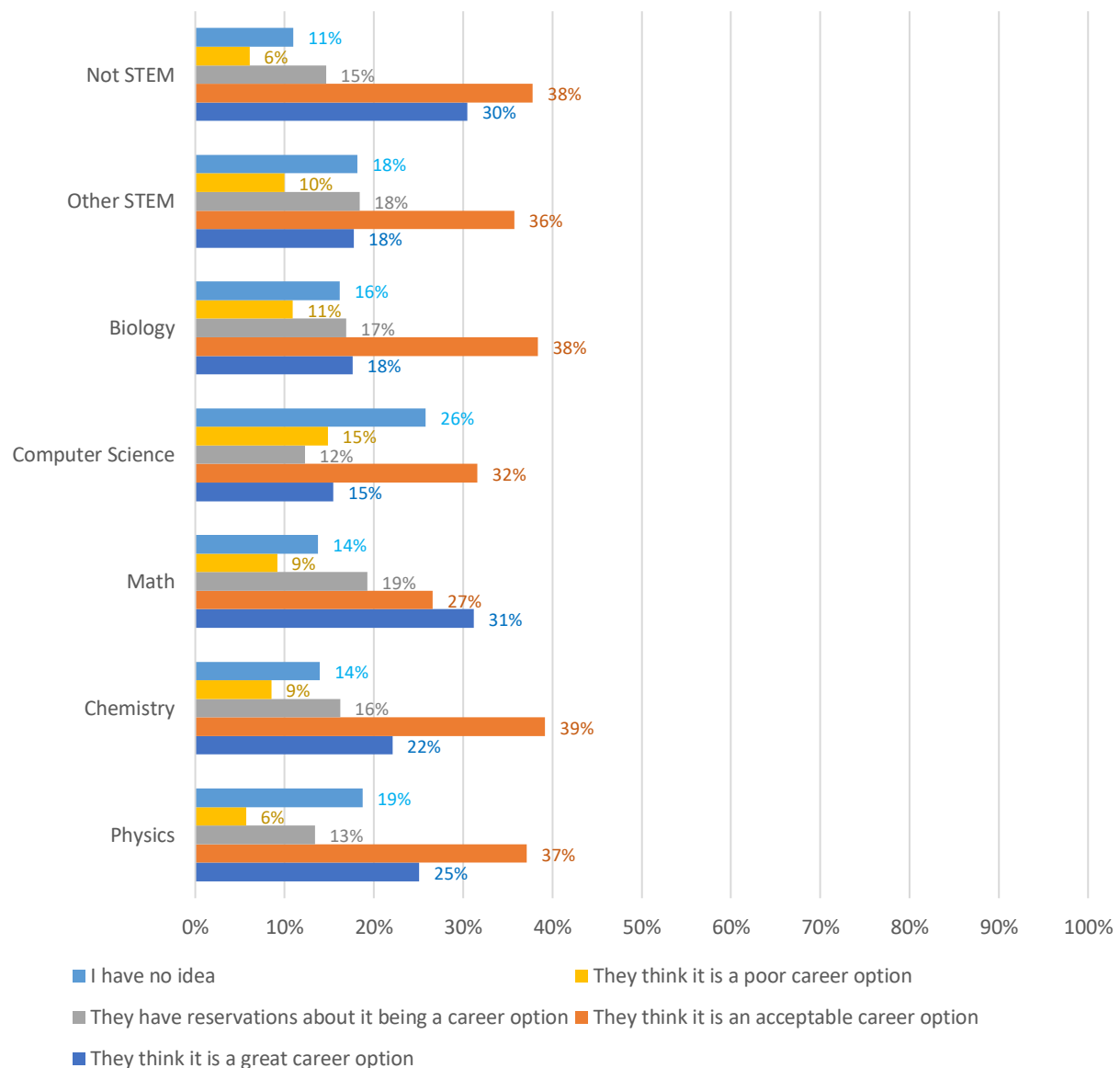


Students were asked how their families feel about grade 7-12 teacher as a career option.

57% of student's families think teaching is a **great/acceptable** career option



Q5 Breakdown by Major



Explanations of what families think of grade 7-12 teaching

Male: n = 241 | Female: n = 204 | Other/Prefer not to say: n = 20

My family will support me for any career choice including teaching	100 - 44	54	2
I have family members that are/were teachers	98 - 47	47	4
Teachers do not make enough money/are treated poorly/overworked	60 - 32	26	2
I or my family does not want me to teach/want to pursue another career	41 - 22	18	1
Never asked/Not sure	38 - 27	8	3
Teaching is an acceptable profession, but there are better careers/more money outside of teaching	36 - 18	16	2
I have family members that are/were teachers, BUT they do not support a career in teaching .	32		
	18	13	1
I can do more with my degree/knowledge than teaching.....	24 - 10	14	0
My family thinks it is a great/acceptable career	20 - 13	7	0
Not mine or my families first choice of career, but will still have support.....	20 - 13	5	2
My family does not support teaching/think it is a poor career choice	11 - 4	5	2
My family does not have a say in what I do with my career	5 - 5	0	0
Grade 7-12 teachers are needed and important.....	3 - 0	3	0
Teaching collegiate level is better than grade 7-12	3 - 3	0	0
My family wants me to pursue higher education	2 - 2	0	0
My family thinks going to an expensive school for a teaching degree is not worth it	1 - 0	0	1
Teaching is a backup career	1 - 0	1	0
Being a teacher would limit potential as an international student	1 - 1	0	0

Explanations of what families think of grade 7-12 teaching

Students that want to teach

Male: n = 18 | Female: n = 28 | Other/Prefer not to say: n = 1

I have family members that are/were teachers	14	-	5		9		0
My family will support me for any career choice including teaching	11	-	5		6		0
Teachers do not make enough money/are treated poorly/overworked	7	-	2		4		1
I can do more with my degree/knowledge than teaching.....	5	-	1		4		0
Teaching is an acceptable profession, but there are better careers/more money outside of teaching	3	-	1		2		0
I or my family does not want me to teach/want to pursue another career	2	-	1		1		0
My family thinks it is a great/acceptable career	2	-	0		2		0
Never asked/Not sure	1	-	1		0		0
I have family members that are/were teachers, BUT they do not support a career in teaching ...	1						
	0		1		0		
Not mine or my families first choice of career, but will still have support.....	1	-	1		0		0
My family does not support teaching/think it is a poor career choice	1	-	1		0		0

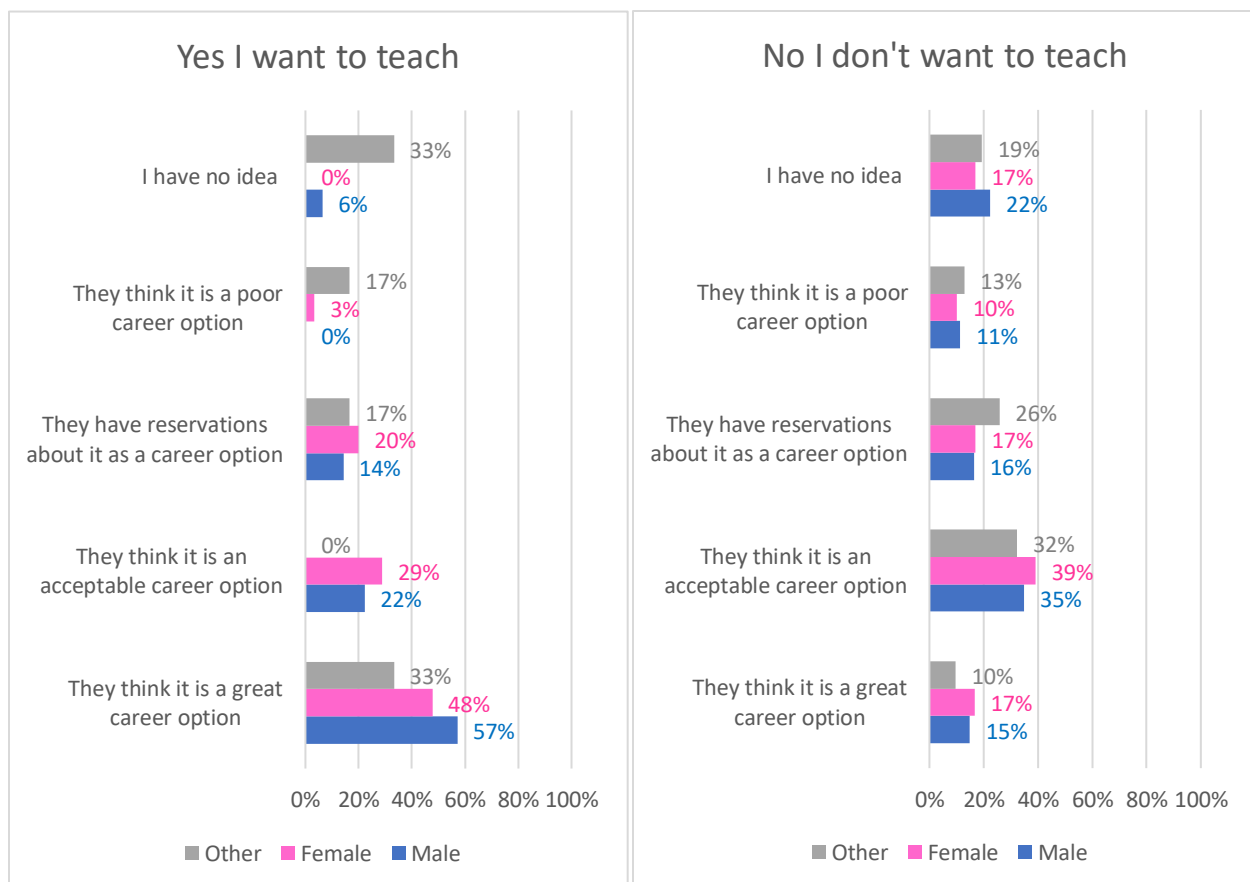
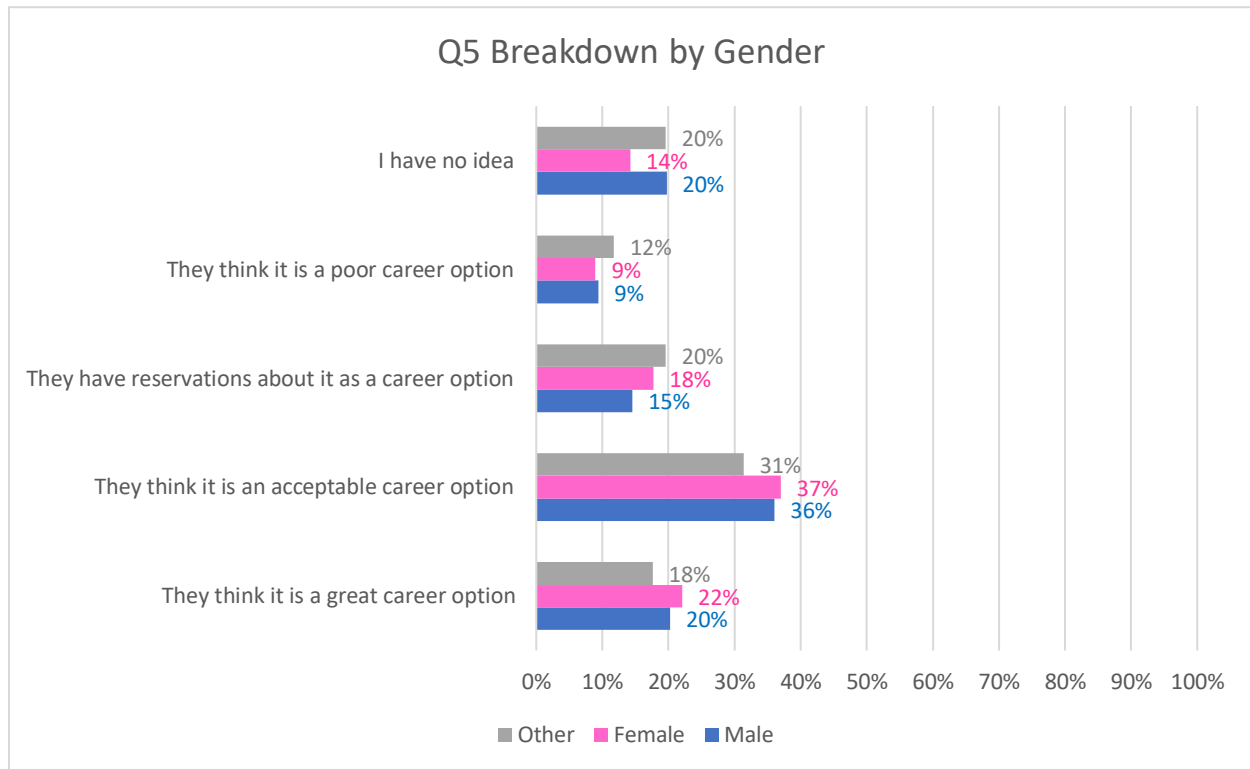
Explanations of what families think of grade 7-12 teaching

Students that DO NOT want to teach

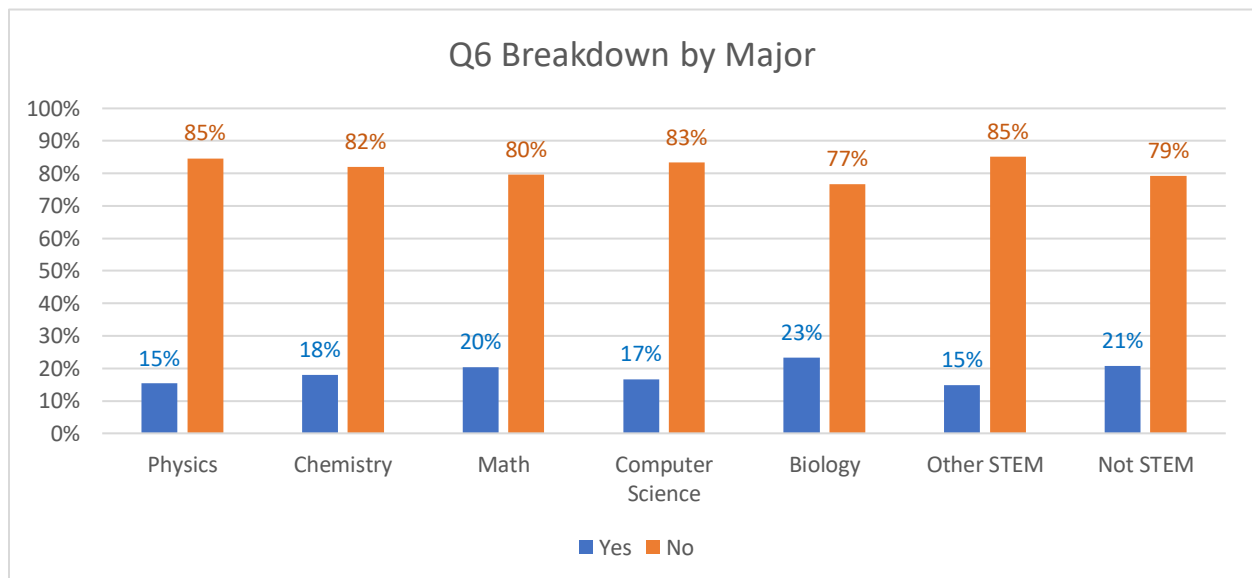
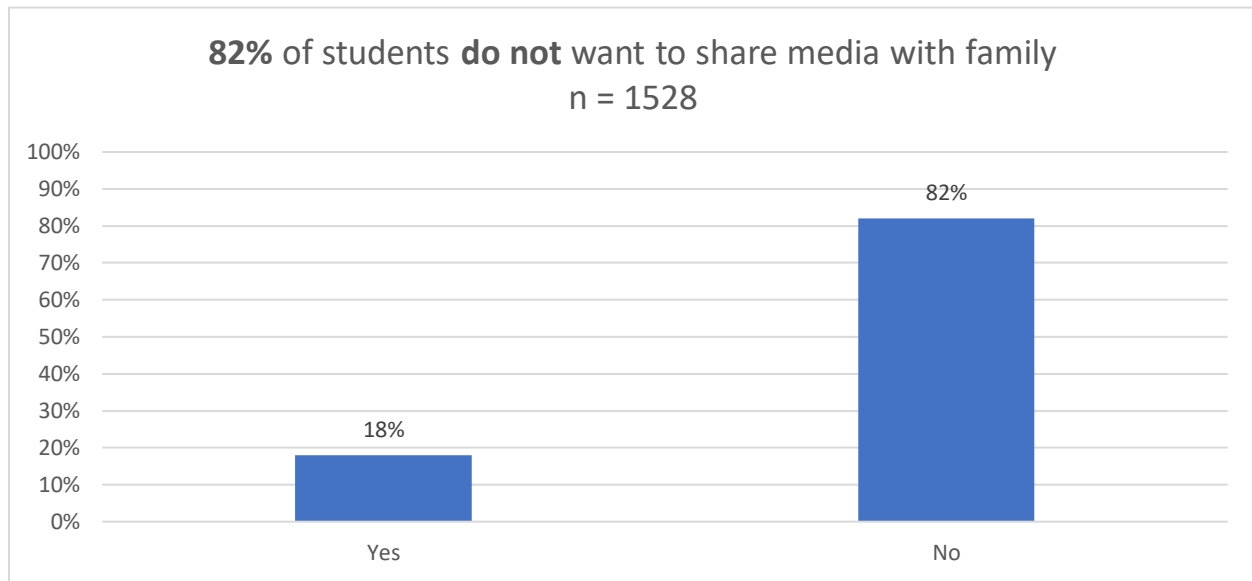
Male: n = 178 | Female: n = 146 | Other/Prefer not to say: n = 11

My family will support me for any career choice including teaching	70 - 31 38 1
I have family members that are/were teachers	65 - 29 34 2
Teachers do not make enough money/are treated poorly/overworked	43 - 25 17 1
I or my family does not want me to teach/want to pursue another career	34 - 18 15 1
Never asked/Not sure	32 - 22 7 3
Teaching is an acceptable profession, but there are better careers/more money outside of teaching	27 - 15 11 1
I have family members that are/were teachers, BUT they do not support a career in teaching .	26 16 9 1
I can do more with my degree/knowledge than teaching.....	18 - 8 10 0
Not mine or my families first choice of career, but will still have support.....	16 - 10 5 1
My family thinks it is a great/acceptable career	13 - 9 4 0
My family does not support teaching/think it is a poor career choice	8 - 3 4 1
My family does not have a say in what I do with my career	4 - 4 0 0
Teaching collegiate level is better than grade 7-12	2 - 2 0 0
My family wants me to pursue higher education	2 - 2 0 0
Grade 7-12 teachers are needed and important.....	1 - 0 1 0

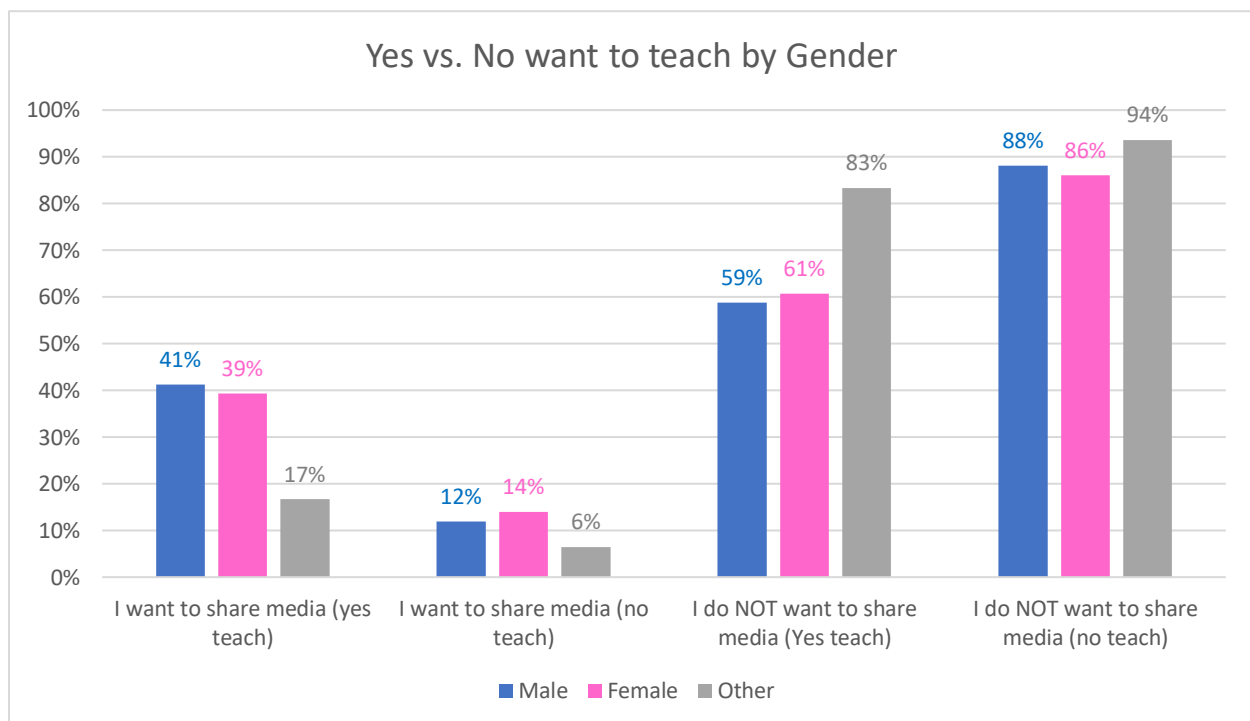
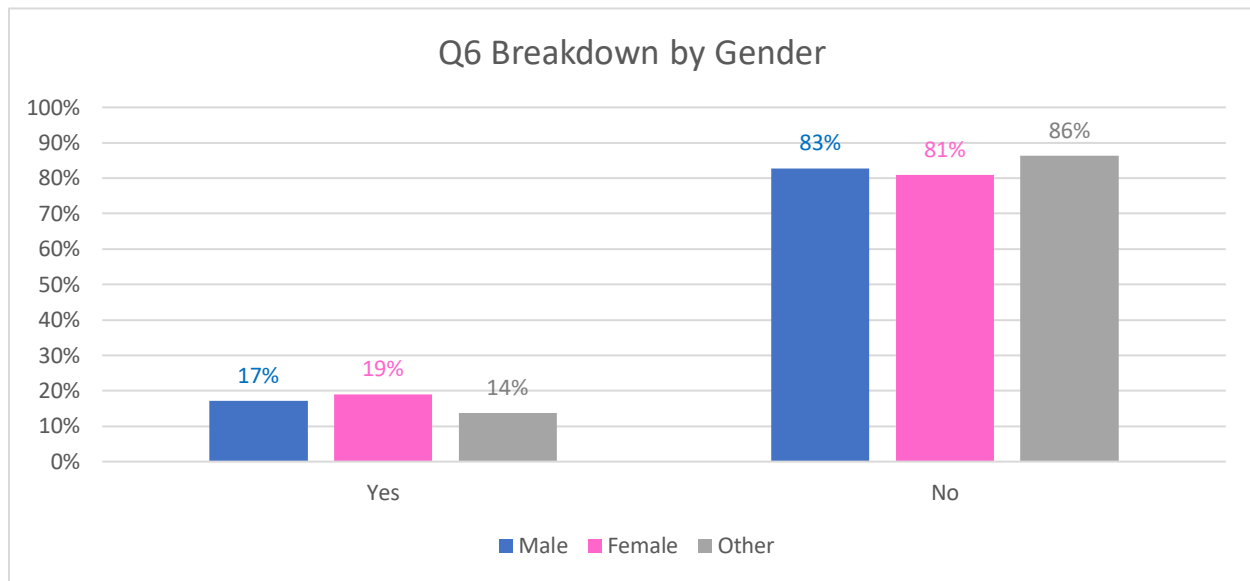
How do student's families feel about grade 7-12 teaching as a career option.



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 family?



Comments/Suggestions

Positive:

Great survey – 5

- This survey is very well crafted and explores the nuances of the perception of teaching as a discipline very gracefully.
- Great survey to develop better understanding about students and how they perceive everything.
- This is an admirable survey, teaching all over the world has gone down. Students don't want to learn and tests do not prove knowledge and intelligence.

Want to know more about getting certified – 2

Want to learn more about teaching as a career – 4

- I really want to learn more about the possible career path within the 9-12 grade range and the benefits of choosing a career path in teaching.
- I am very interested in teaching EC-6 math/science i am not sure where to get started

Other - 5

- The video explained the benefits of 7-12 teaching very well. I did not know about the pay raises common in 7-12 teaching compared to university teaching.
- The reason I decided to major in physics was because of a high school teacher
- I think teaching in America in public schools is a very admirable duty for the record and have had some wonderful 7-12 grade teachers.
- Having professor Sanders as an educator is extremely mentally and educational beneficial.
- I am working toward chemistry teacher licensure now through a minor in secondary education.

Negative:Low salary/benefits and unfair treatment - 10

- teachers get terrible pay and are generally poorly treated by their employers, parents, and students, theres a reason so many places have a teacher shortage right now.
- Please advocate to at least pay teachers an actual living wage as they support the generations to come
- If teacher pay was comparable to other careers in the field it would certainly be a more viable career option. I don't think teachers are treated with the respect they deserve or that they receive the payment they deserve. I believe that this issues could be fixed with government policy/funding, but until that happens, I don't view teaching as a viable career choice.
- I don't understand why there is a survey going around and a push for students to go into teaching. The reason there is a teacher shortage and a lack of people looking to pursue teaching is because of how disrespected teachers are at any level. Of course there will be people that want to teach out of the goodness in their hearts but anyone who is on the fence about it will ultimately choose not to because the career is disrespected. Maybe instead of trying to coerce college students into teaching efforts should be focused on improving the career of teaching so people will be more interested in pursuing it.
- Not many people want to teach, at least where I come from because of the money. Again, from my experience it is worse than most jobs that require degrees. Throughout high school I knew many teachers that spoke on this as the salaries at my school in NH were especially low.

Other - 5

- Although my individual experiences in UH have been good, I have heard from other students say some professors have practically said not to go into teaching if your majoring in math because it is a waste. I thought that would be very discouraging if I was shaky about teaching.
- The only reason people leave a teaching career is that they love the subject, not the students.
- The only post-graduate plans my profs have ever mentioned in class is med school and grad/PhD programs in chem/biochem/physics.
- We need better and more qualified unbiased teachers that promote good morals and teach in a revolutionary way. There must be a change within the k-12 system. Its basically a prison mentally and physically for kids
- I once had a meeting with a professor to see if grad school was right for me. I mentioned that i had failed a class last semester, and he immediately pivoted to telling me to become a highschool teacher. I firmly believe that the atmosphere in my department (or any stem department)is that students with low gpa's should become teachers, while those with high gpa's should go on and work in research/industry. Being told i should become a high school teacher was incredibly demoralizing, and it motivates me to get better grades. Teaching at a college level is different however, if he had said id make a good lecturer that'd be a whole different ball game (University of Houston)

Neutral:Teaching is a great career, but it is not for me – 12Teaching is great, but unsupported by society/government - 4

- I think teaching is a great career but it is looked down upon because you often hear teachers complain too much about their teaching job. They always talk about how poorly they get paid.
- Teachers are so very important in our entire nation and for our future. It is ashamed that teachers are so very good at a subject and could make so much money doing anything else yet they choose to help students and want to teach students yet they are some of the lowest paid employees in the nation with a 4 year degree. With any other degree I personally have looked into careers that start out pay is 75k+ a year. STARTING PAY!!! A teachers start out pay is 36K a year. Terrible.

Survey Feedback - 4

- I would suggest adding a "I have no idea" option for question 22
- The questions on page 3 contain wording bias, it feels that you are driving towards answers that fit your narrative. Consider the wording used and consider adding explanatory boxes for comments on those questions.
- There have been several times where I answered 'Neutral' as a replacement for 'I don't know'
- Survey is too long

New to college, haven't had time to think about teaching as a career - 3

- I found this survey hard to take as I am currently in my 4th day of college ever, so my results are skewed by the fact that I have had very little interaction with professors and the likes.
- I have been in this university for only a few weeks now. I have not had much exposure, as of yet, to any particular career option, and, with all due respect, I do not often think about 7th-12th grade teaching. I don't have some intense disdain for it, but I do have a more outlined career path right now that I intend to follow.

Getting teaching license/certification takes too long – 2

- If becoming teaching certified did not extend my time in college I would 100% strive to get it.

Other - 8

- I think I would like to work as an engineer for a few years (outside of WV) while saving money, and then come back to Morgantown to teach Calculus, Intro Engineering courses, or Physics. I would like to venture into research eventually, so pursuing a PhD part time while teaching sounds appealing to me.
- I would like to look into getting my teaching certificate however I have changed my major to a non stem major.
- I am a computer science major, I'm not a target demographic for this survey
- I would appreciate more information regarding the responsibilities of a teacher NOT regarding teaching. It seems like teaching is only 10% of the job -- what about interactions between teacher-student, teacher-parent, teacher-admin, etc. I am glad that I have been taught how to teach -- but I feel as though I have not been adequately prepared on how to be a TEACHER. I am excited to be a teacher and look forward to the experience, but I do feel as if I am learning on the fly and will learn the most once I am actually in the field as a full teacher
- I hope that you use this data to persuade law makers that teachers need more resources in order to combat the teacher shortage in high need areas. As well as they need to address pay disparity in cities that have a much higher cost of living, and the disparity that students face in lower income areas by providing additional resources for their success.
- My mom is an 8th grade math teacher. It's obvious that it can be a fulfilling or miserable job depending on location, satisfaction, and personality.
- I think the residual effects from the forced transition to digital and asynchronous learning are going to be significant. Teaching in a public school is likely to evolve into a significantly larger teacher to student ratio where the students are learning primarily from a standardized, digital third party program. The role of the instructor will turn into one more similar to a TA. It doesn't seem cost effective for states to increase budgets for faculty in an attempt to solve the teacher shortage issue when the pandemic has proven the viability of digital learning. Teaching seems like a gig that is only going to get worse, and worse, and worse.
- The only main reason I would be interested in K-12 is so I could do my own research on the side without my employer encroaching on my intellectual property. Also my frustration with how much more could be taught so much earlier on. Downsides to teaching are correcting student work, of course in STEM this can possibly be a bit easier by having students enter things in a computer and automating the process