



2022|23 Year 4

Get The Facts Out

Faculty Strategy Implementation (FSI) 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](#).



Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. NSF DUE #1821710 & 1821462.

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About this Report

The Faculty Strategy Implementation (FSI) survey is appended to the end of the PTaP.HE to ascertain the degree to which GFO materials are used. In order to learn about Professor's responses to the FSI, we administered the survey directly to this group. We are not able to identify Professors individually within the broader responses to the PTaP.HE. We added some specific questions to the survey about gender, department, and whether the professors are tenured or not.

Research questions and statements include:

- How much opportunity do faculty have/seek to influence their students? (Q52-55)
- How do faculty hear about GFO? (Q56-59)
- Faculty usage of and experience with GFO resources
- Modification of GFO materials
- Anticipated future usage or non-usage of GFO resources
- Other impacts of GFO - Is GFO inspiring action/change?

(Free response questions or questions with "other – specify" sections have numbers stating how many times that general answer was mentioned by respondents. Responses with no number next to it means it was only mentioned once)

Demographics

There were approximately 300 respondents that took part in at least one question of the FSI survey. The average amount of responses was around 270 for the earlier questions and decreased to around 10-20 responses per question.

Out of the 299 responses to the question about gender identification, the results are:

Faculty Gender Information (n = 299)		
Gender	Respondents	Percentage
Male	113	37.8%
Female	171	57.2%
Other	15	5.0%
Total	299	100.0%

Out of the 297 responses pertaining to which department the respondents are affiliated with, the results are:

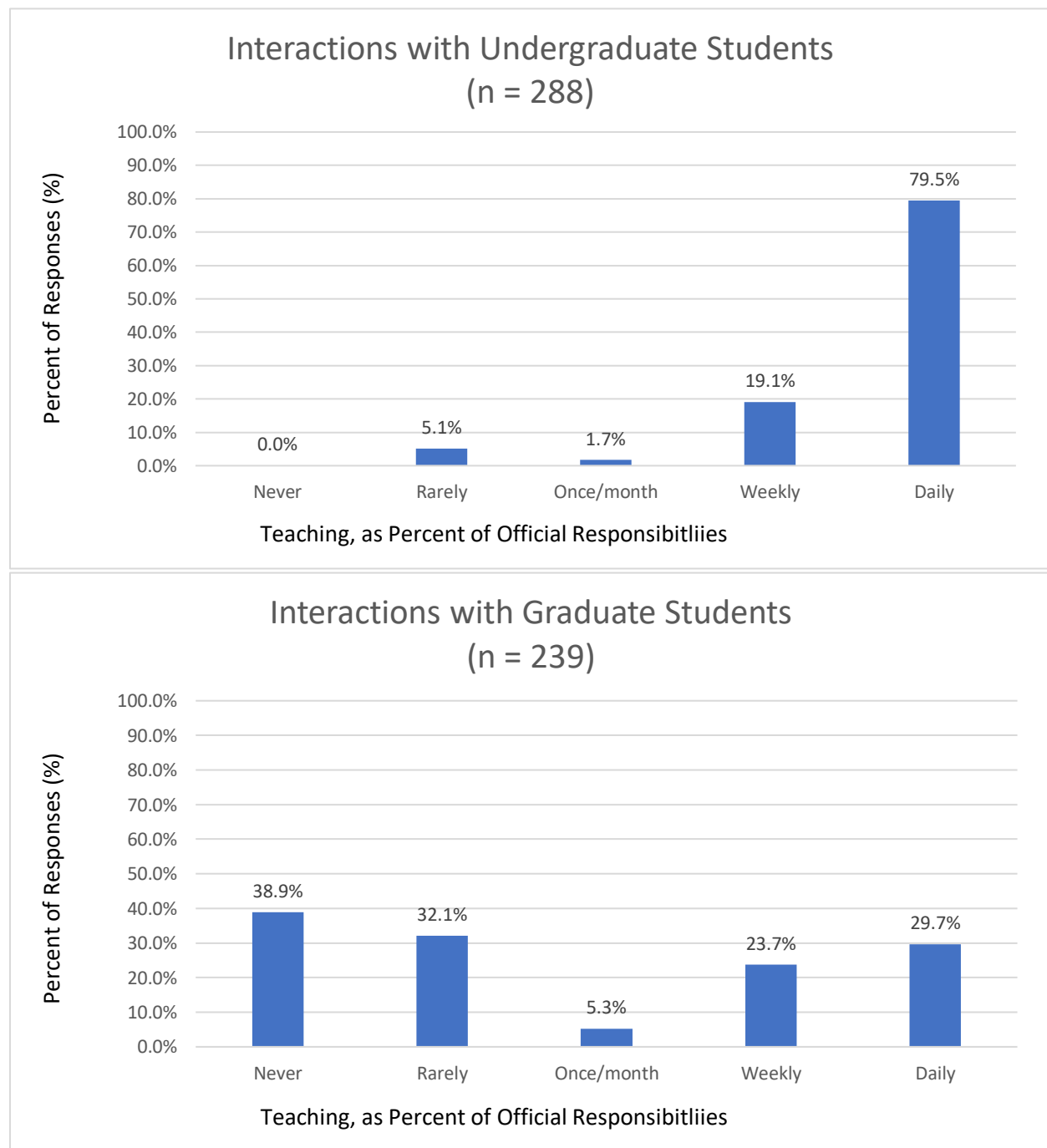
Faculty Department Information (n = 297)		
Department	Respondents	Percentage
Math	116	39.1%
Chemistry	63	21.2%
Physics	58	19.5%
Comp. Science	5	1.7%
Engineering	1	0.3%
Biology	20	6.7%
Earth Science	13	4.4%
Other	21	7.1%
Total	297	100.0%

Out of the 299 responses pertaining to whether the respondents were tenured or not, the results are:

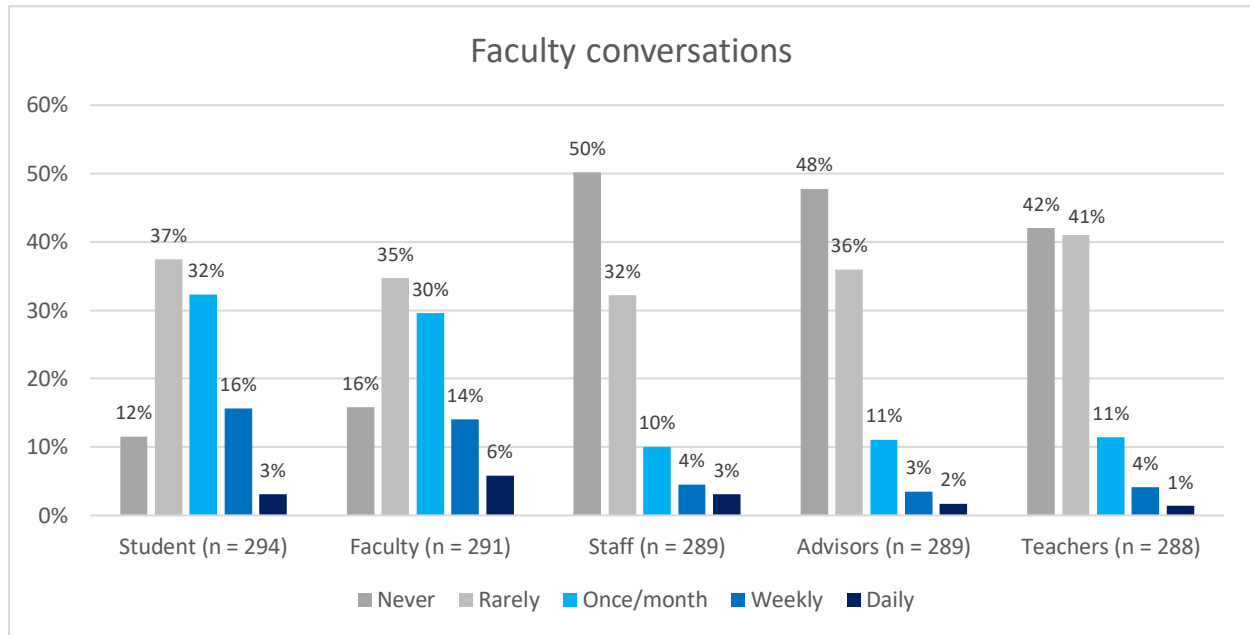
Faculty Tenure Information (n = 299)		
Type	Respondents	Percentage
Tenured/TT	257	86.0%
Non-Tenured	42	14.0%
Total	299	100.0%

Communication and Conversation between students and faculty

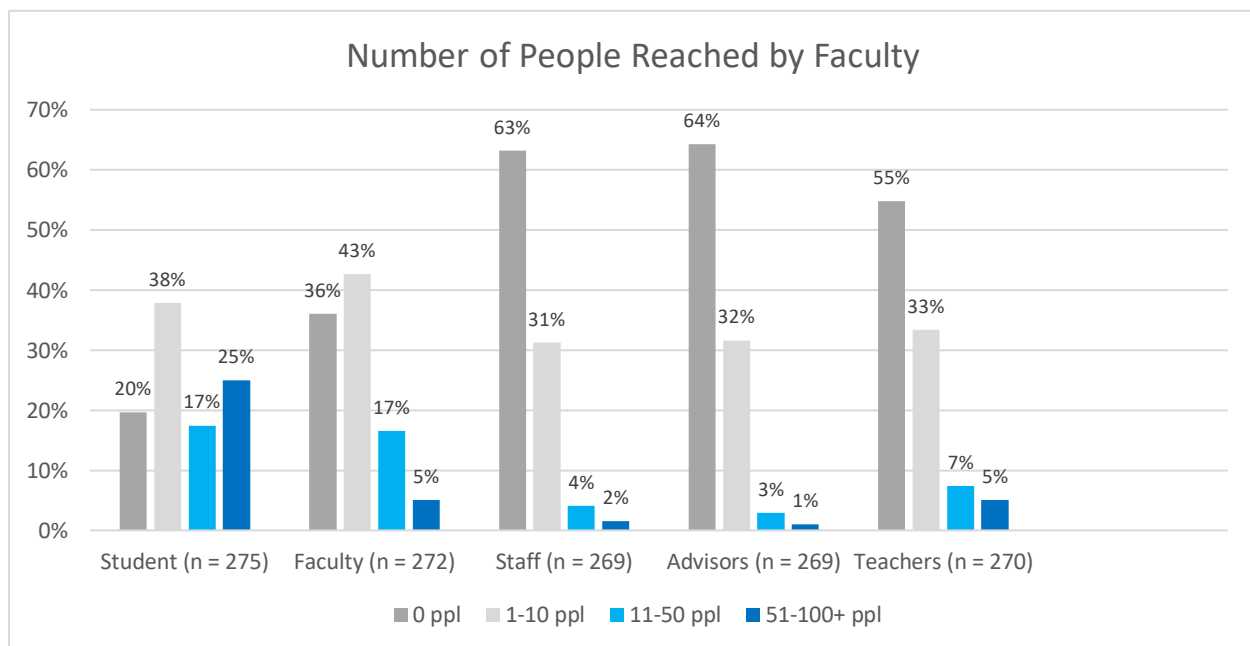
Respondents were asked how often they interact with undergraduate and graduate students in classes, meetings, labs, office hours, or other contexts as part of their university role during a typical year. Most respondents interact daily with their undergraduate students, and for graduate students, there is an even spread among never and daily, with the majority being never. There were a significant number of respondents that never communicate with their graduate students.

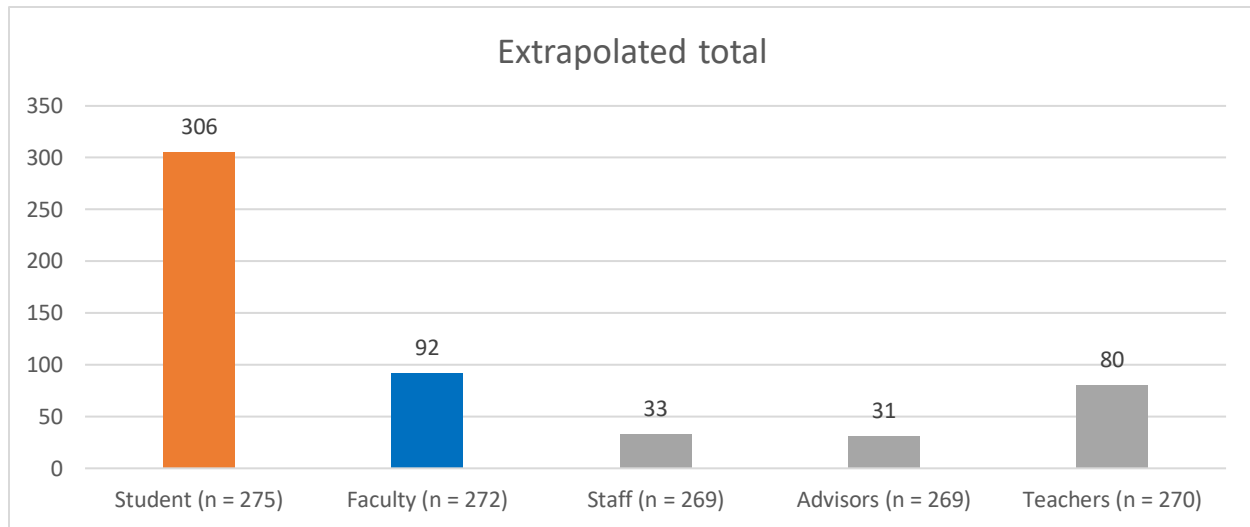


Respondents were asked how frequently they had had a conversation about teaching as a profession with students, faculty, staff, advisors, and local teachers, within the past year. Most of the respondents typically never or rarely had these conversations with these different groups.

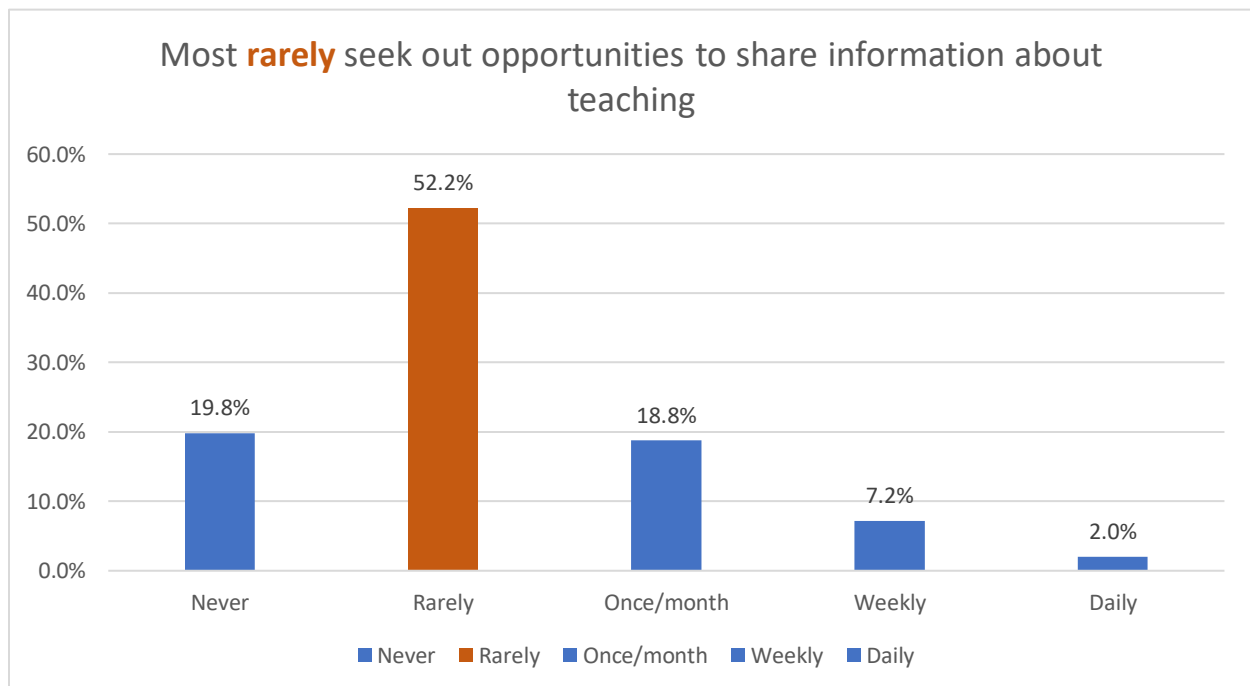


We then asked the faculty respondents how many members of each of the following audiences do they believe they have reached through conversations about teaching or the use of other materials on a scale of 0 to over 100 people. Most respondents indicated 0 people or between 1-10 people.





We also asked respondents how often they actively seek out opportunities to share information about teaching as a profession with others. Over 50% of the respondents rarely sought out opportunities to share information, while many of the other respondents either never share or only share about once a month.



Have faculty heard of GFO?

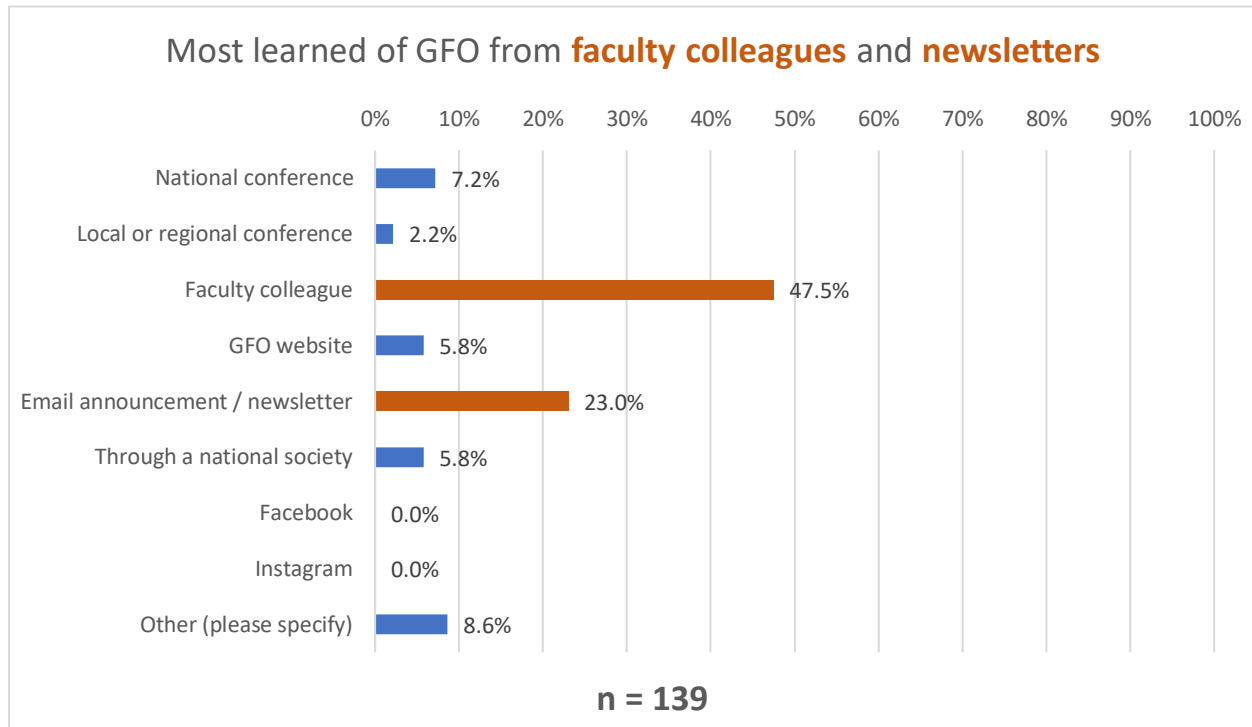
We asked respondents if they have heard of GFO and how. A majority of the responses said they have never heard of GFO.

Values	Total (excl. missing for question)	
	298	
	#	%
Yes	92	30.9%
No	182	61.1%
Unsure	24	8.1%

We then mentioned that GFO is a longitudinal NSF study focused on changing the conversation around STEM teacher recruitment by correcting common misperceptions about the teaching profession and that it is a partnership between the Colorado School of Mines, the American Physical Society, the American Association of Physics Teachers, the American Chemical Society, and the Association of Mathematics Teacher Educators. The result led to 12 respondents to say yes.

Values	Total (excl. missing for question)	
	22	
	#	%
Yes	12	54.5%
No	10	45.5%

Respondents were asked where they have heard of GFO. 34.2% of responses were under “Faculty colleague.” Social media seemed to be the least used source for learning about GFO.



The “other” responses are summarized below:

- Through the same survey from previous years – 9
- Forced to do it
- Through MSU
- Get the Facts Out pilot program outreach from Mines

Respondents were asked to identify a person or venue that referred GFO to them. Most of the responses are colleagues/other faculty.

Faculty/Colleagues: (in alphabetical order)

Drew Alton - 1	Robynne Lock - 1
Rachel Bishop-Ross - 2	Karen Magee-Sauer - 2
Thomas Brown – 2	Paul Miller - 4
Seth Bush - 1	Richard Pearson - 4
Tonya Coffey - 4	Monica Plisch - 1
Mike Dobranski - 2	Barbara Reisner - 5
Steve Elliot - 3	Lake Ritter - 3
Paige Evans - 1	Mel Sabella - 1
Chance Hoellwarth - 1	Kendra Schroeder - 1
Karel Jacobs - 3	Gay Stewart - 5
Brian Lawler - 2	Donna Stokes - 1

Physics = Blue

Chemistry = Yellow

Math = Red

Biology = Purple

National Societies and Conferences/Universities/Other:

APS - 2	PhysTEC - 4	WVU - 2	Faculty member	Email
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Usage of and experience with GFO Information

Respondents were asked whether they have used GFO information for themselves or for others. The results were 60/40 with the majority answer being no.

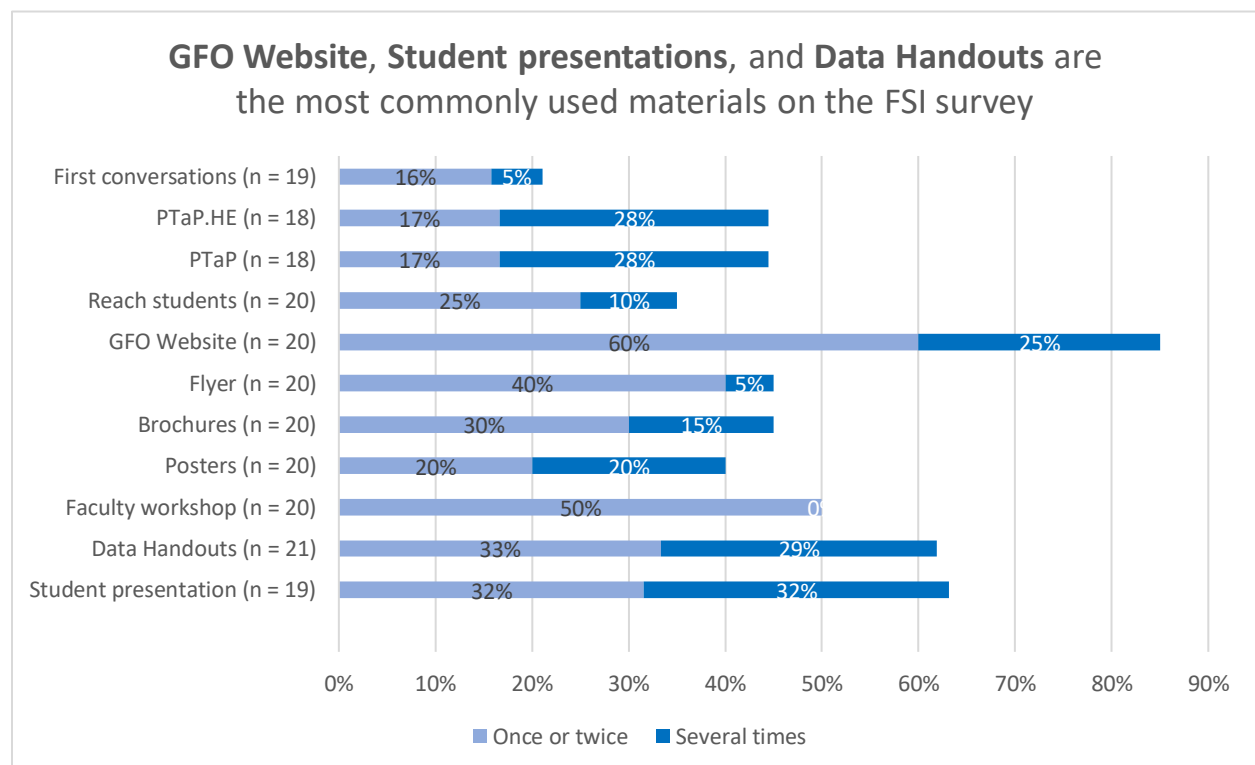
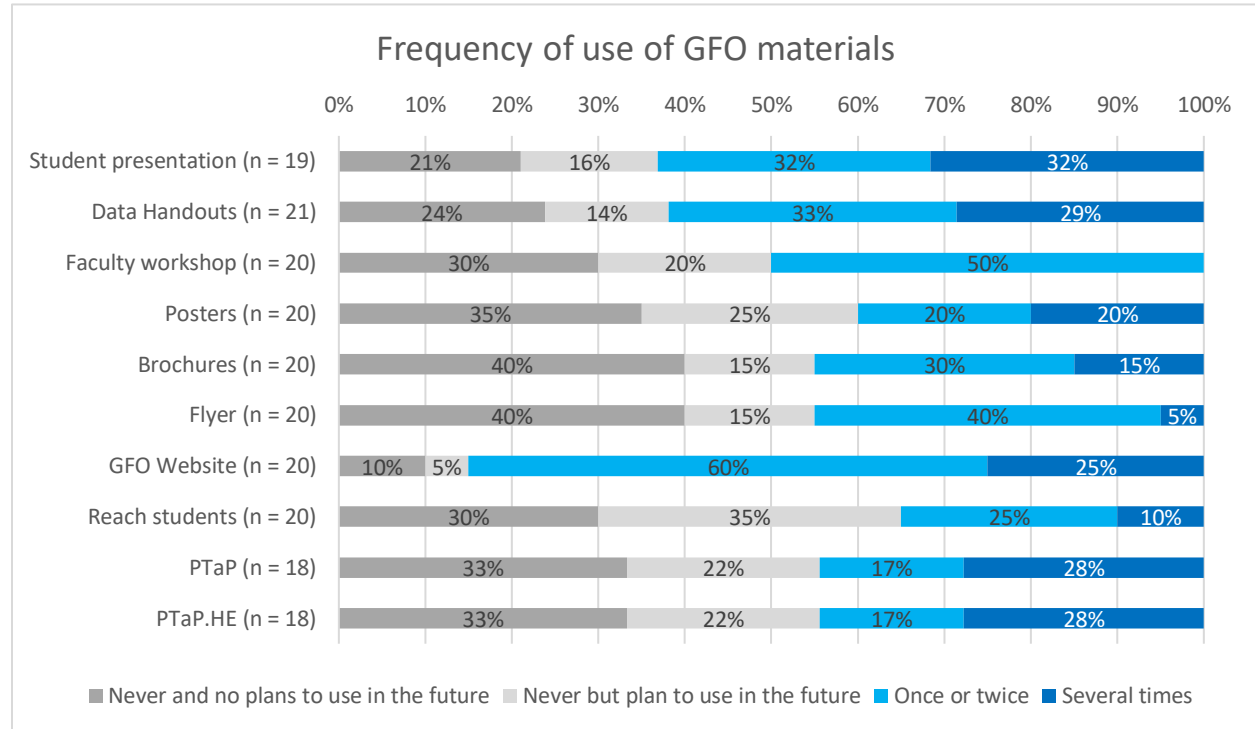
Values	Total (excl. missing for question)	
	104	
	#	%
Yes	43	41.3%
No	61	58.7%
Total	104	100%

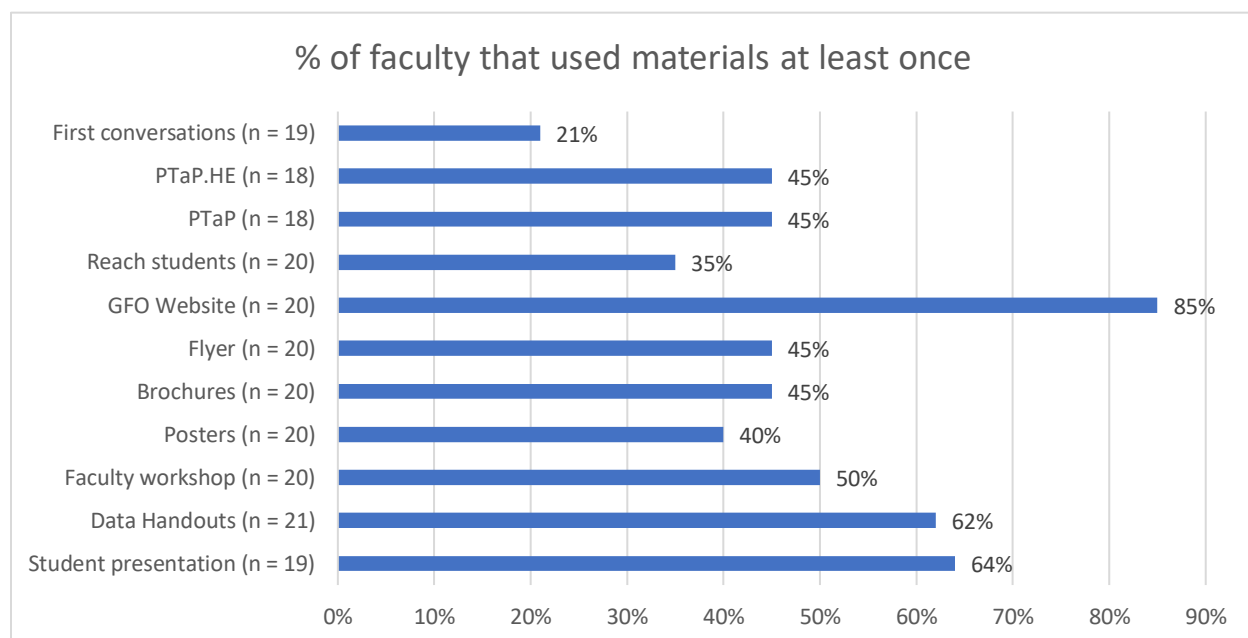
For those that said yes, we asked if the respondents would specify how they used GFO materials and in what context.

Their specified responses are summarized below:

- Presented materials in class – **9**
- Share information with students/faculty – **7**
- Put flyers/posters on door or hand out to students – **6**
- Conversations/discussions with students – **4**
- Recruitment purposes – **4**
- Advising purposes – **2**
- Have students read editorial on GFO website - **2**
- Direct students to GFO website/resources – **2**
- Invited a colleague to provide a GFO presentation to a class.
- With colleagues thinking about marketing new 14 month MAT program, but we're having trouble getting the COE to back it up.
- I do not use them. I do not find them useful and find them insulting at times. I do encourage students to pursue teaching.

Respondents were asked how frequently they have used GFO materials including, student presentation, faculty workshop, posters, brochures, flyers, reaching students via various venues, PTaP survey, PTaP.HE survey, and first conversations guide





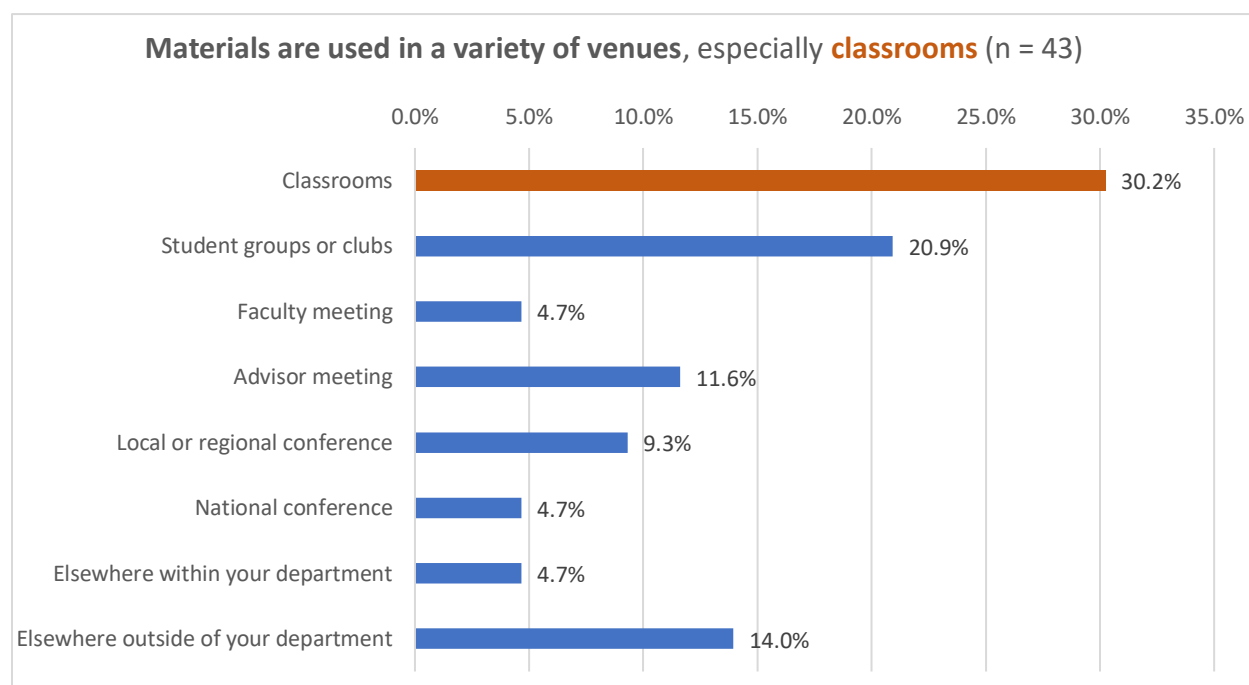
Other responses include:

- Would be fair to say that these materials when adapted to regional conditions are useful.

Respondents were asked if they used GFO data in their recruitment efforts without using the pre-made sources.

- No – 3
- no - I prefer to use the pre-made resources to ensure that I do not make errors in the facts.
- I have mentioned the job-satisfaction blurb in a few presentations that I have made.
- We have used posters.
- I have used the flyer for biology undergrad events.
- We also have a Teach program (WVUTeach) and I have advertised that program in conjunction with GFO.
- Again yes when adapted to regional conditions

Respondents were asked in which venues they have used GFO messages or materials.



Other responses include:

- Individual conversations
- Orientation
- Rotary club presentation
- Undergraduate recruitment events.

Respondents (faculty that have heard of GFO and HAVE used the materials) were asked if there were other ways that GFO has influenced them, other than the use of specific materials. The elaborated answers are as follows:

- No – 4
- It changed some of my preconceived ideas about teaching as a career, making it easier to encourage students to look at it as a career option.
- Helped me address some misconceptions I had about the teaching profession.
- As a template

Respondents were asked which of the materials they found the most helpful and if they were pleased with the outcome. The responses are as follows:

- The website is useful because I don't have to have material handy. I find that students don't really like hand-outs.
- PowerPoint slides - yes, I was happy.
- The posters/flyers are most helpful. I am still working on outcomes.
- NA
- The presentations are very helpful

Respondents were asked what challenges they encountered when presenting these materials.

- None – 3
- Remembering the name "get the facts" so that I can find the material on line. I need to bookmark it.
- It was straightforward.
- We're a small program trying to revive our MAT. I think we're still overwhelmed from the pandemic and haven't used the materials as much since we're still struggling to get our program back up and running much less recruit for it. Our major numbers are down as well.
- Much research needed to make them optimally appropriate for recruiting teachers.

Responses about modifying materials

Respondents were asked if they have modified any of the GFO materials to better suit their needs.

Values	Total (excl. missing for question)	
	18	
	#	%
Yes	7	38.9%
No	11	61.1%

The specific materials that were modified are summarized below:

- Flyers - **3**
- Powerpoint slides
- Posters
- Most of them
- Local Salaries
- Presentations

How did you modify them?

- Changing the data to be aligned with regional conditions and requirements - **2**
- hid select slides
- We used our university colors and pictures which showed our own faculty/students.
- Colleague in biology modified them and asked for feedback
- Show what the different supplements are
- info about our teacher prep program

Why did you modify them?

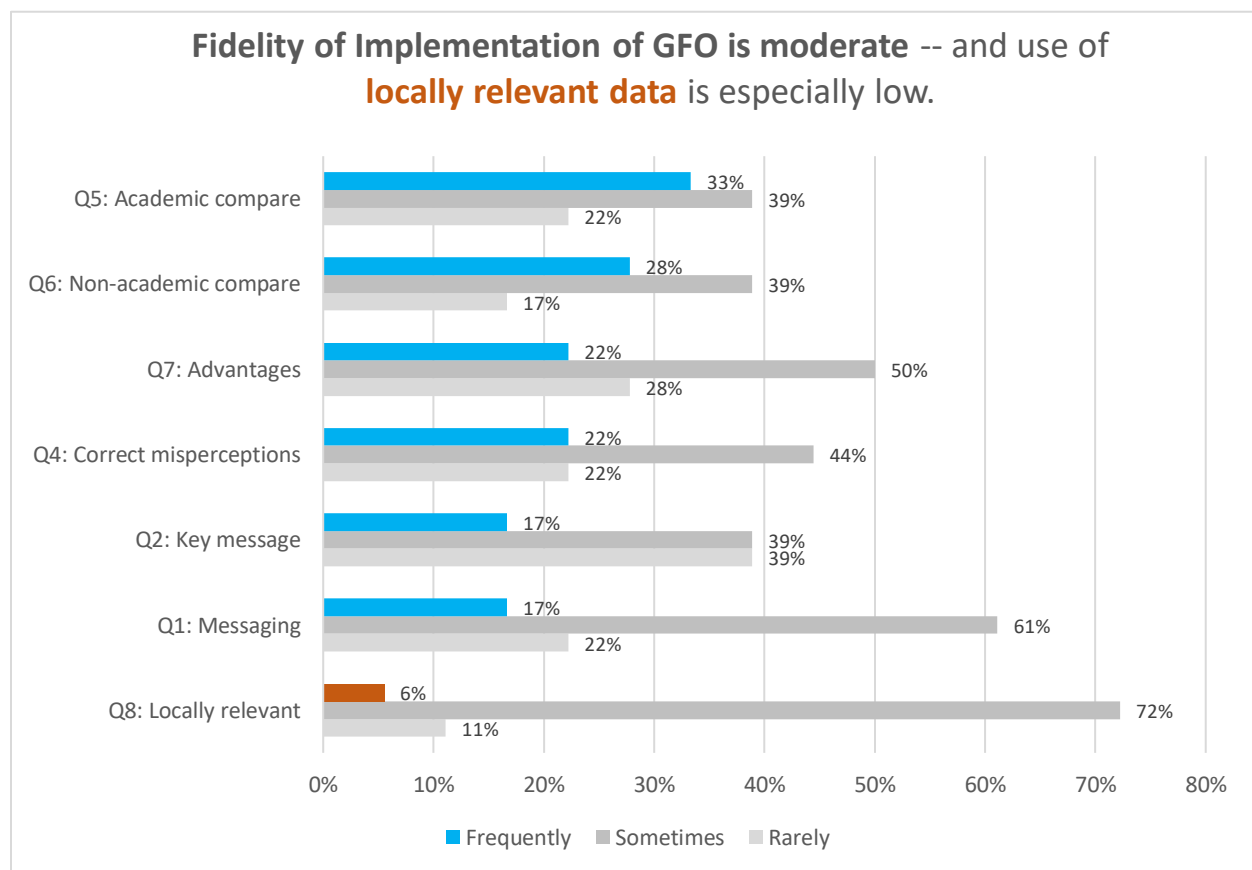
- time constraints
- I am using the materials to recruit students for a Robert Noyce Teacher Scholarship Program project at my university. I wanted the posters to reflect our university brand to attract people to our university in addition to attracting them to the teaching profession.
- to make more campus specific
- To make them more effective (not a criticism). Note we already had many of our own versions of the materials and data -- e.g. we have always informed the students about loan forgiveness programs, scholarships, professional earning opportunities etc.

- More local information
- to market our program to our region

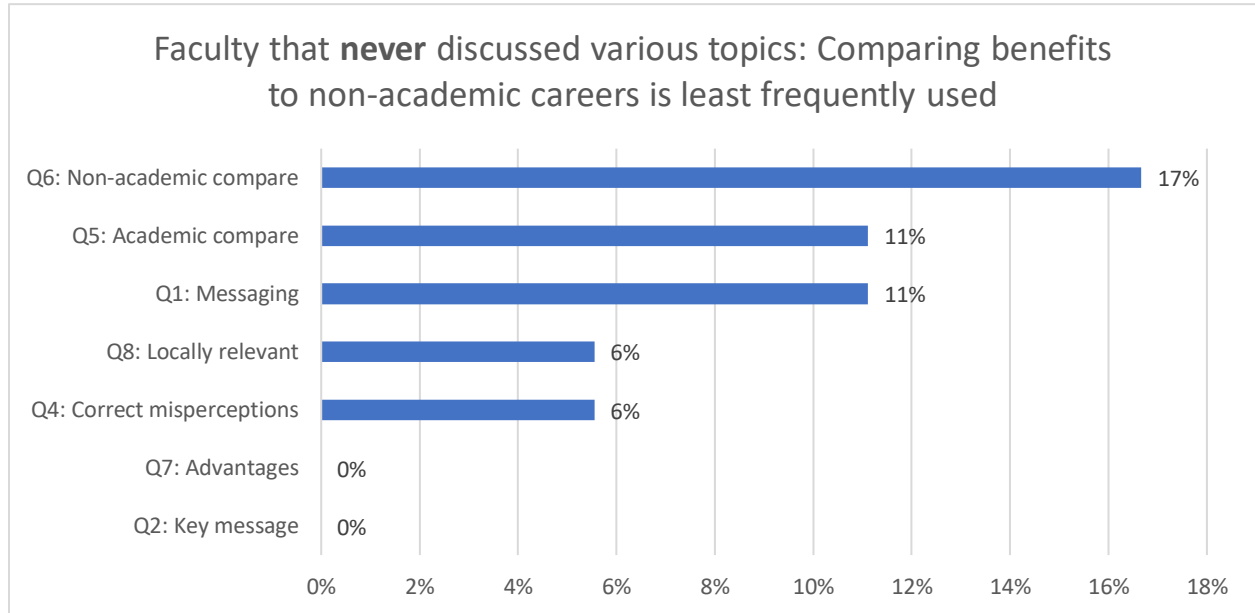
Future usage or non-usage of GFO resources

Respondents were asked how often they discussed these various topics while discussing grade 7-12 teaching, since GFO, including:

1. Used messaging from GFO
2. Emphasized the key message of GFO in interactions with others
3. Avoided voicing misperceptions about teaching as a profession
4. Corrected common misperceptions about teaching as a career when voiced
5. Compared benefits of teaching as a profession to other academic careers in a positive light
6. Compared benefits of teaching as a profession to other non-academic careers students can get with the same degree in a positive light
7. Mentioned less commonly known advantages of teaching as a profession, such as work-life balance or flexibility in the classroom
8. Shared locally relevant data about teaching as a profession



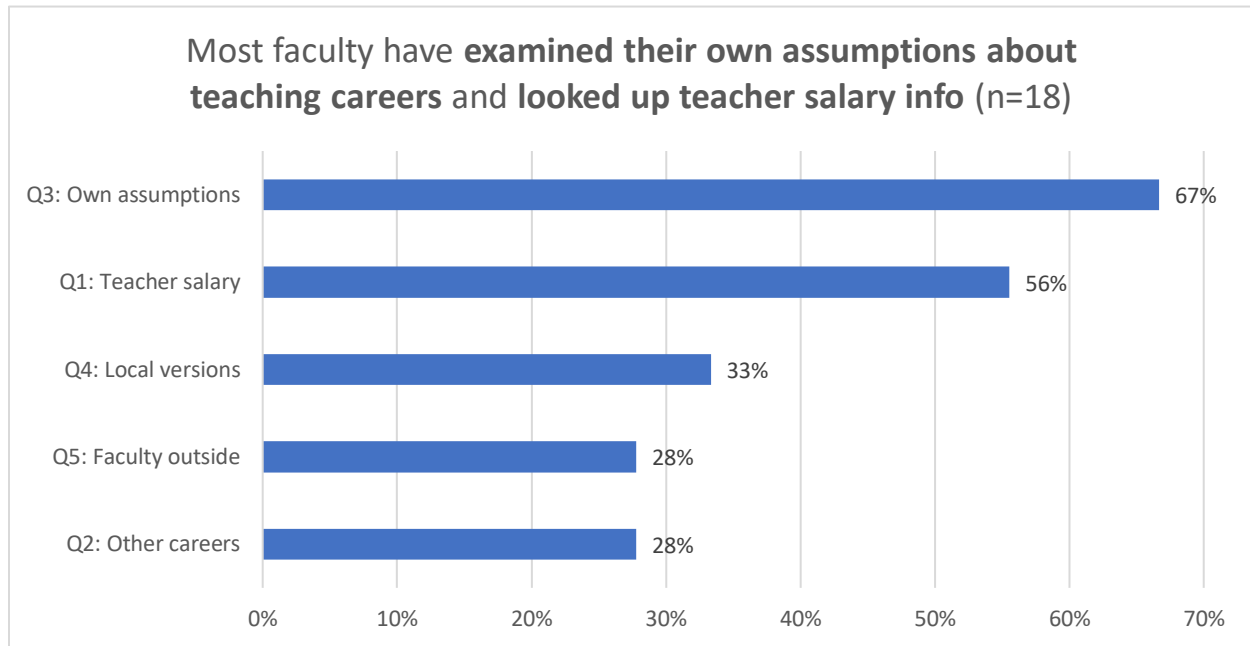
(Omitted question 3 due to poor wording that skewed results)



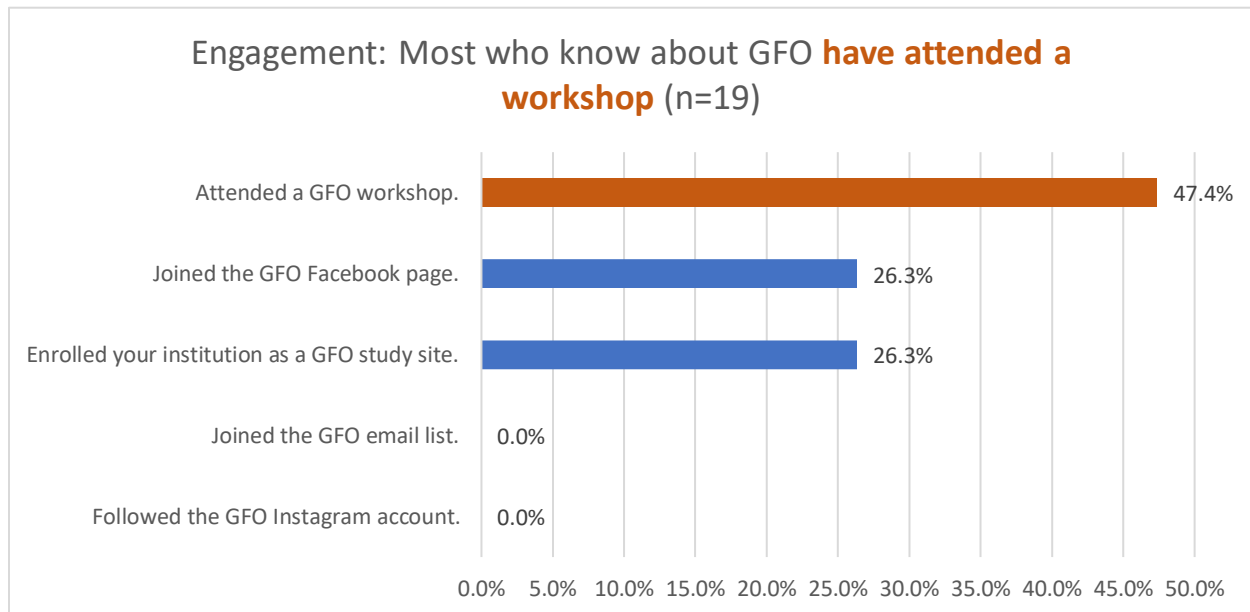
Respondents were asked since learning about GFO if they have:

1. Looked up or examined local salary, retirement, and other benefit data for grade 7-12 teachers.
2. Looked up or examined local salary, retirement, and other benefit data for other careers students can get with the same degree.
3. Examined your own assumptions or perceptions of grade 7-12 teaching as a career
4. Created local versions of GFO resources or materials.

5. Spoken to faculty outside of your institution about GFO



6. Attended a GFO workshop
7. Joined the GFO Facebook page
8. Joined the GFO email list
9. Followed the GFO Instagram account
10. Enrolled your institution as a GFO study site



Respondents were asked if they have any other comments or suggestions for the GFO team.

- It is very useful especially for programs that are attempting to grow their STEM teaching populations and lack resources, knowledge, information. Much of it is common sense.

Respondents (faculty that have heard of GFO, but have NOT used the materials) were asked if there were other ways that GFO has influenced them, other than the use of specific materials.

Most responses said “no” and the other responses include:

- It has prompted more discussion about 7-12 teaching as a profession
- Not really. It might have slightly improved my view of K-12 teaching in the US. (I still think it is in a terrible state, sorry to disappoint.)
- I haven't used any materials, only gave my students a survey.
- I keep in mind that teaching is a great profession for students. Switching to education is not a topic students I encounter are asking about. They land in my class hoping to major in the sciences, engineering, exercise science, and computer science.
- It has made me seriously reconsider my perceptions of a teaching grades 7-12 in a STEM area.

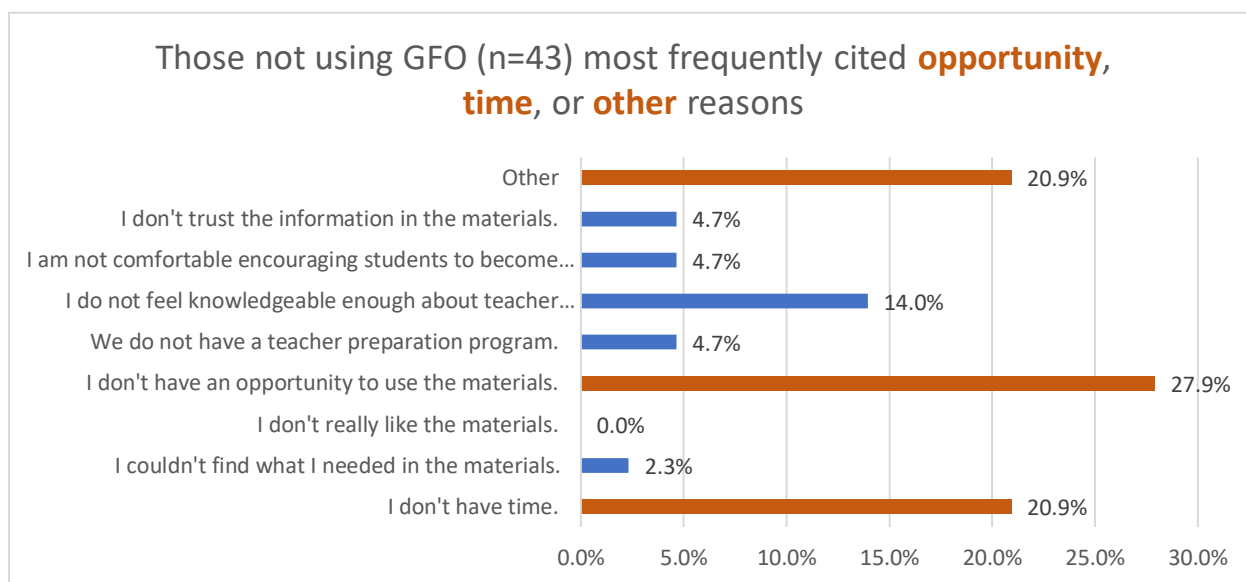
Respondents were asked if they would be interested in using some of the GFO materials on their campus.

Values	Total (excl. missing for question)	
	61	
	#	%
Yes, I am interested	28	45.9%
No, thank you	33	54.1%

For those respondents that replied no, we asked if they could tell us the main reason why they do not plan on using GFO materials.

1. I don't have time
2. I couldn't find what I needed in the materials
3. I don't really like the materials
4. I don't have an opportunity to use the materials
5. We do not have a teacher preparation program
6. I do not feel knowledgeable enough about teacher preparation to use these materials
7. I am not comfortable encouraging students to become teachers
8. I don't trust the information in the materials

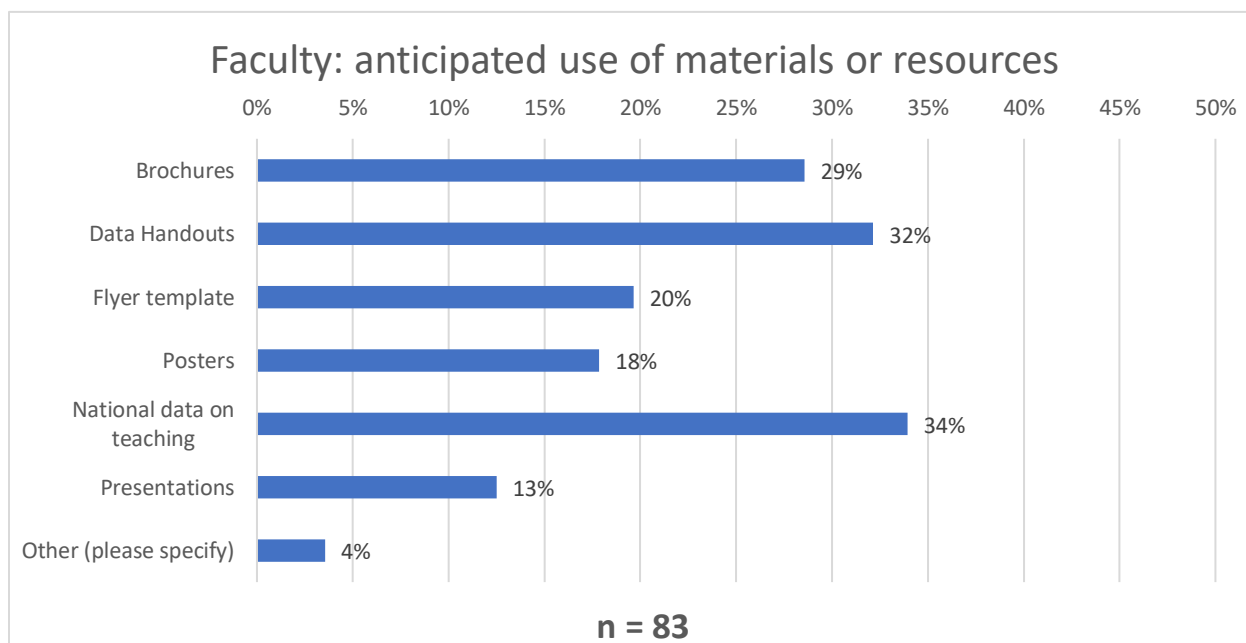
9. Other



Other Responses:

- Other colleagues are responsible for it – 5
- I am not actively recruiting teachers.
- I am a part-time faculty member. I feel the materials might be more effective in the hands of the department leads.
- retiring
- Some question are guesses and scientifically nonsense.

For those that replied yes, we asked which of the materials they would use.



We asked respondents how they anticipate using these materials.

- Share/discuss materials with students – 6
- Posting materials around school – 3
- Present materials in class - 2
- Hand out materials in class – 2
- Recruitment purposes – 2
- I'm not sure
- I don't

We asked respondents why they anticipate using these materials.

- To help students know about teaching career options – 4
- To make materials easily accessible for interested students – 2
- Convenient/easy to use – 2
- Because we often have discussions about career goals.
- We need more math and science teachers, especially those with strong academic skills.
- better than nothing!
- Works well in current environment
- Brochures are easy and can be kept on hand for one-off encounters. Data or presentation slides can be integrated into presentations (e.g. given to prospective students or department student groups).
- I don't