Year 2 Faculty Strategy Implementation Summary

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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 576 respondents that took part in at least one question of the PTaP.HE survey and 367 in the FSI survey. The average amount of responses was around 500 for the earlier questions and decreased to around 50-100 responses per question.

PTaP.HE

Faculty Gender Information (n = 576)		
Gender	**Respondents**	**Percentage**
Male	187	32.4%
Female	361	62.7%
Other	28	4.9%
Total	**576**	**100.0%**

Faculty Department Information (n = 576)		
Department	**Respondents**	**Percentage**
Math	182	31.6%
Chemistry	75	13.0%
Physics	211	36.6%
Comp. Science	6	1.0%
Engineering	9	1.7%
Biology	63	10.9%
Earth Science	12	2.1%
Other	18	3.1%
Total	**576**	**100.0%**

Faculty Tenure Information (n = 576)		
Type	**Respondents**	**Percentage**
Tenured/TT	360	62.5%
Non-Tenured	216	37.5%
Total	**576**	**100.0%**

FSI

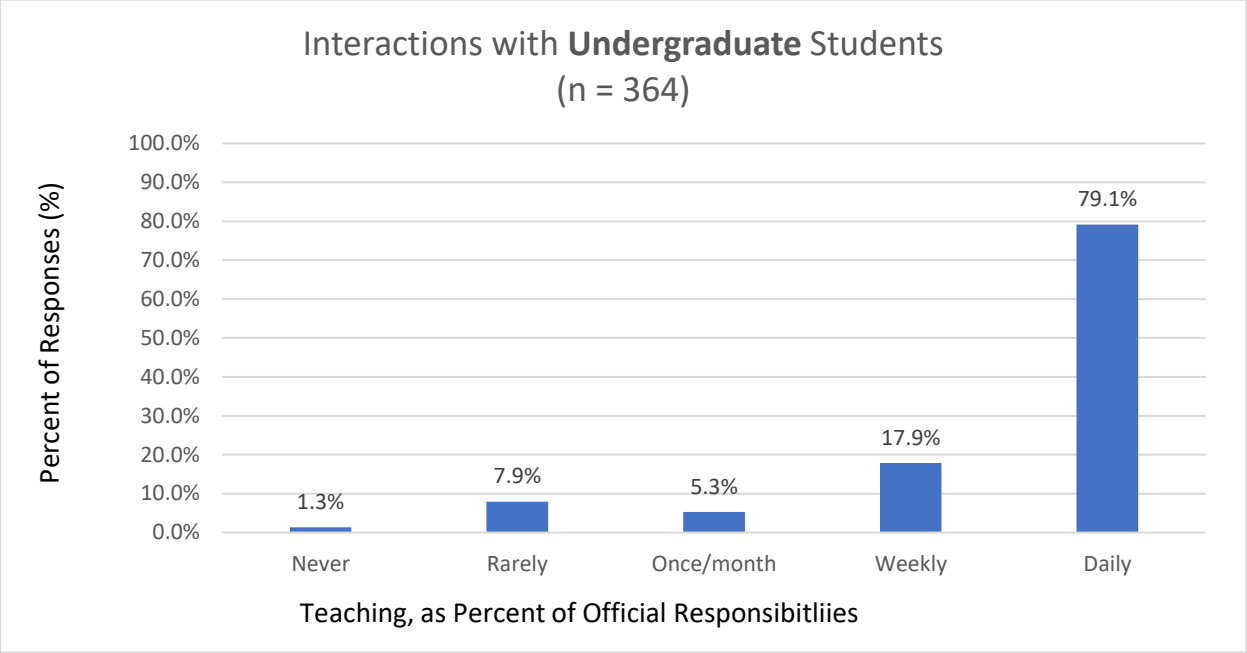
Faculty Gender Information (n = 367)		
Gender	**Respondents**	**Percentage**
Male	128	34.9%
Female	223	60.8%
Other	16	4.3%
Total	**367**	**100.0%**

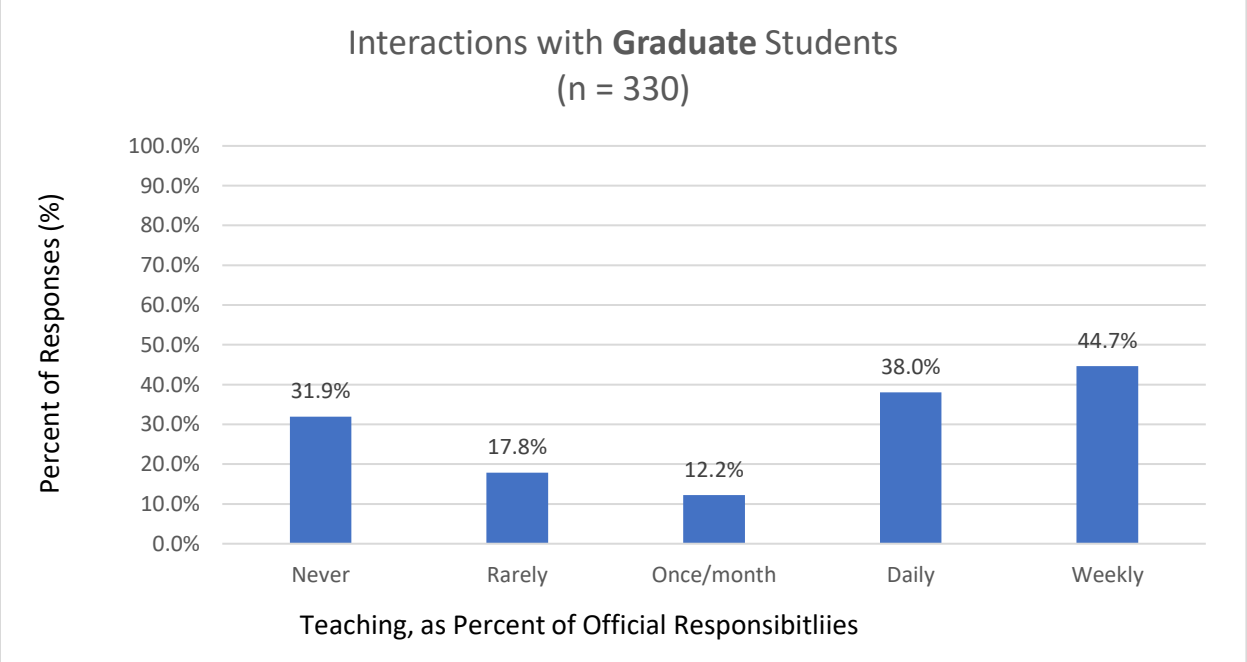
Faculty Department Information (n = 367)		
Department	**Respondents**	**Percentage**
Math	95	25.9%
Chemistry	44	12.0%
Physics	136	37.0%
Comp. Science	6	1.6%
Engineering	9	2.4%
Biology	53	14.5%
Earth Science	12	3.3%
Other	12	3.3%
Total	**367**	**100.0%**

Faculty Tenure Information (n = 367)		
Type	**Respondents**	**Percentage**
Tenured/TT	251	68.4%
Non-Tenured	116	31.6%
Total	**367**	**100.0%**

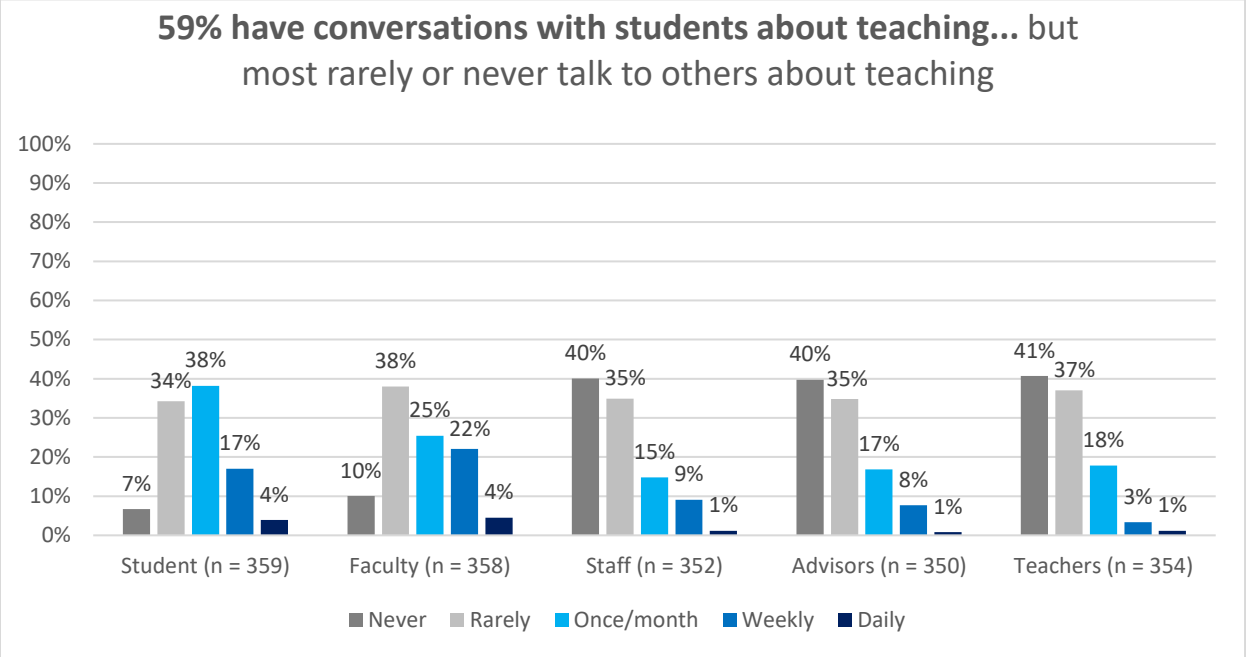
Communication and Conversation between students and faculty

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. The vast majority of respondents interact daily with their undergraduate students, and weekly/daily with graduate students. There were a significant number of respondents that never communicate with their graduate students.

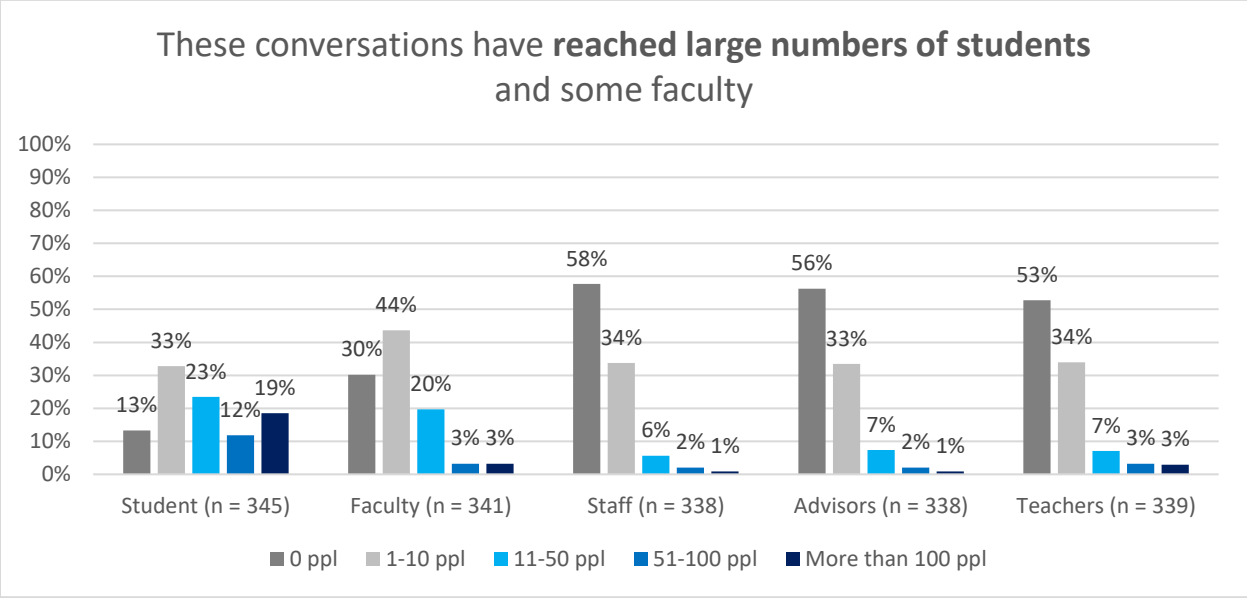


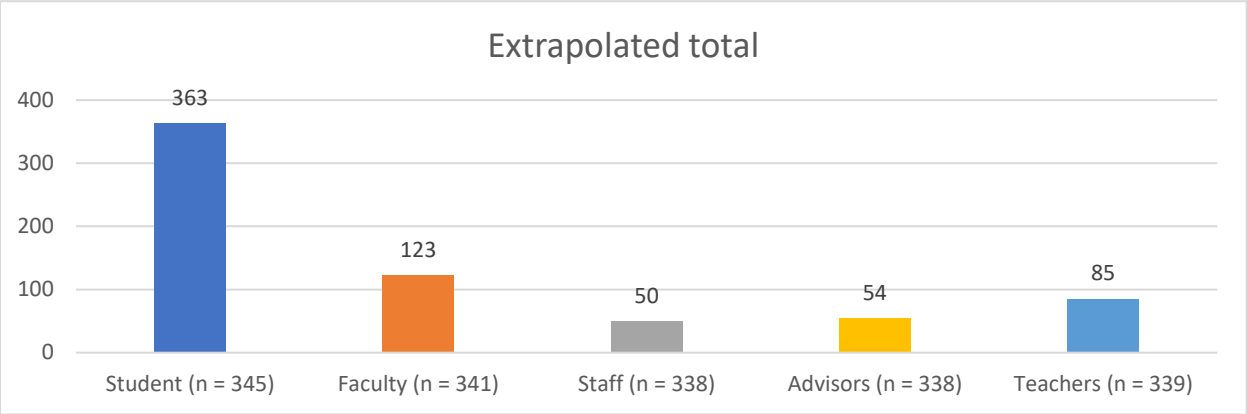


Respondents were asked how frequently they had had a conversation about teaching as a profession with students, faculty, staff, advisors, and local teachers, within the past year. Most of the respondents typically never or rarely had these conversations with these different groups.

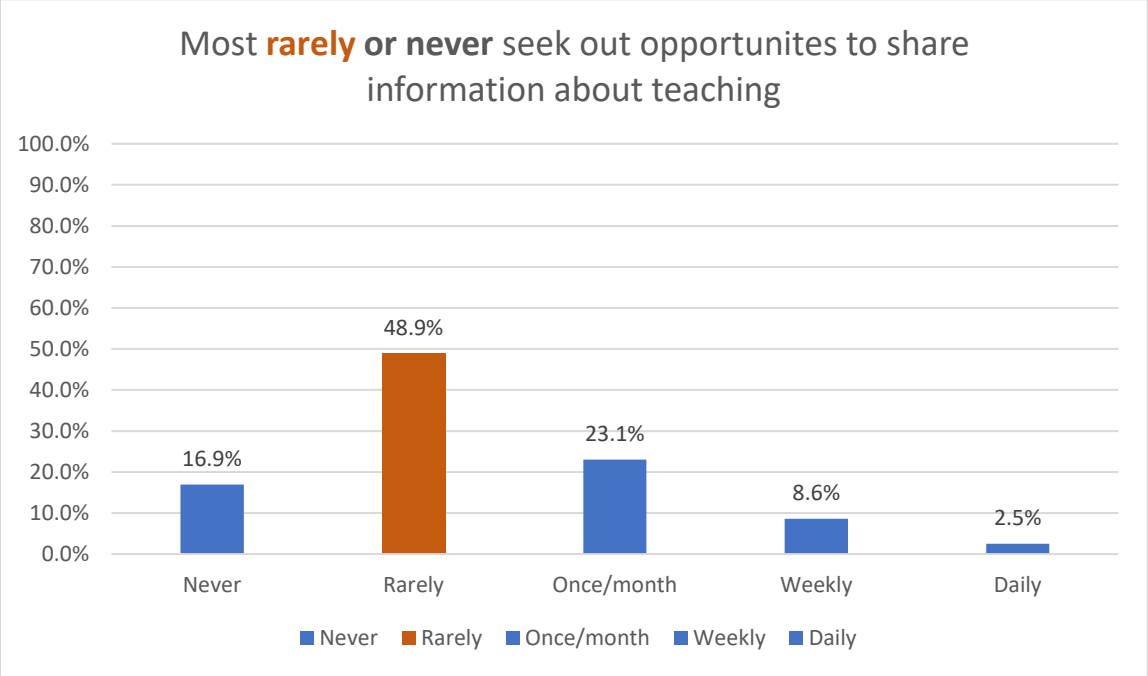


We then asked the faculty respondents how many members of each of the following audiences do they believe they have reached through conversations about teaching or the use of other materials on a scale of 0 to over 100 people. Most respondents indicated 0 people or between 1-10 people.





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 or never sought out opportunities to share information, while most of the other respondents only share about once a month.



Have faculty heard of GFO?

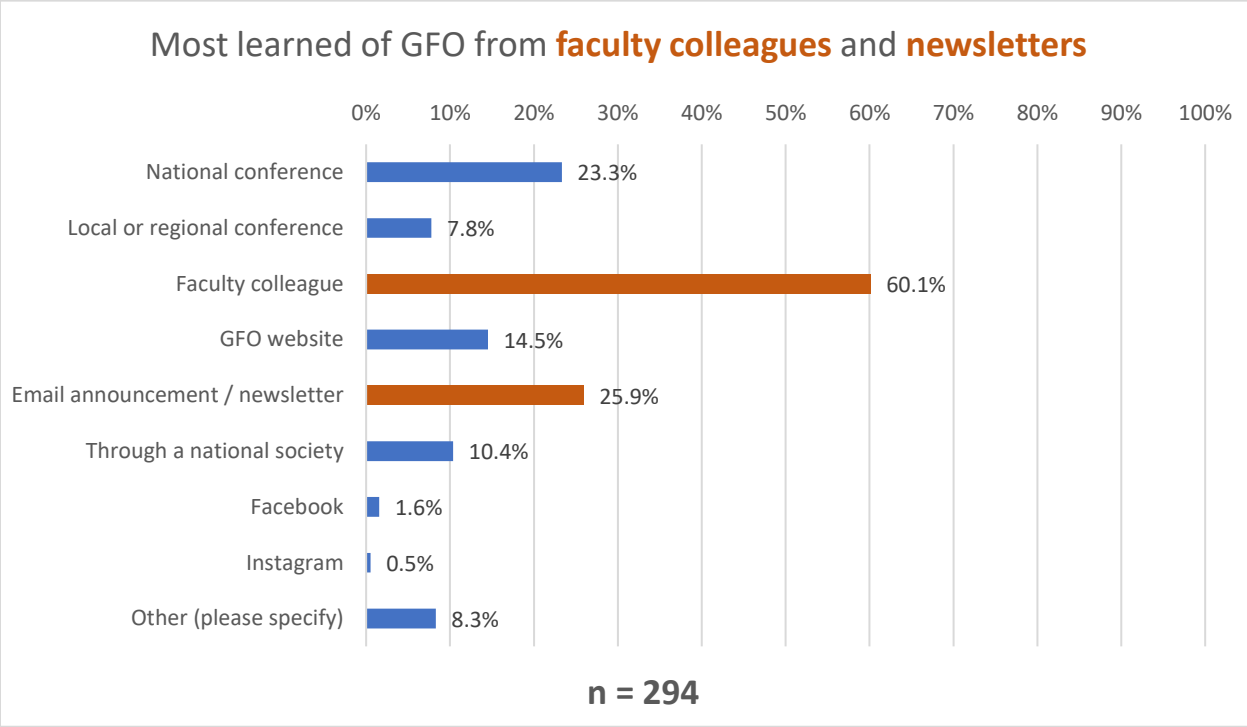
We asked respondents if they have heard of GFO and how. A majority of the responses said they have never heard of GFO.

Values	Total (excl. missing for question)	
	367	
	#	*%*
Yes	106	28.9%
No	244	66.5%
Unsure	17	4.6%

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 9 respondents to say yes.

Values	Total (excl. missing for question)	
	17	
	#	*%*
Yes	9	52.9%
No	8	47.1%

Respondents were asked where they have heard of GFO. 60.1% 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:

- Last year's survey – 3
- Representatives visited campus/presented on campus - 3
- PhysTEC – 2
- Heard from a colleague (Mathematical Association of America) – 2
- Graduate/Research student - 2
- GFO workshop
- Project NExT email, MathFest
- AAPT
- Emails
- APS
- Attended a focus group last year on our campus

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

Faculty/Colleagues: (in alphabetical order)

Matt Chedister - 1	Joshua Grossmann - 4	Robin Smith - 1
Majorie Darrah - 1	Chuhee Kwon - 3	Gay Stewart - 1
Allison Daubert - 1	Robynne Lock - 2	Jeff Williams - 3
Mike Dobranski - 3	Karen Magee-Sauer - 2	
Jennifer Docktor - 2	Paul Miller - 1	
Andrea Van Duzor - 1	Monica Plisch - 1	
Sarah Formica - 4	Mel Sabella - 1	
Corin Slown Gallagher - 1	Savanah - 1	

Physics = Blue

Chemistry = Yellow

Math = Red

Biology = Purple

National Societies and Conferences:

AAPT - 3	Gateway to College - 1	MAA – 3	PhysTEC - 9
ACS - 1	GFO - 2	MTEP - 1	SIGMAA RUME - 1
APS - 3	JMM - 1	NOYCE - 1	UTeach - 1

Universities/Departments:

CSULB
University of Colorado
UW La Crosse
West Virginia University
Florida State University
Department Chair and College Representatives
Department Chairperson
Department chair
our departmental e-mail list
Dean
Project NExT email group; MathFest
email from department chair

Usage of and experience with GFO Information

Respondents were asked whether they have used GFO information for themselves or for others. The results were almost 50/50 with the majority answering no.

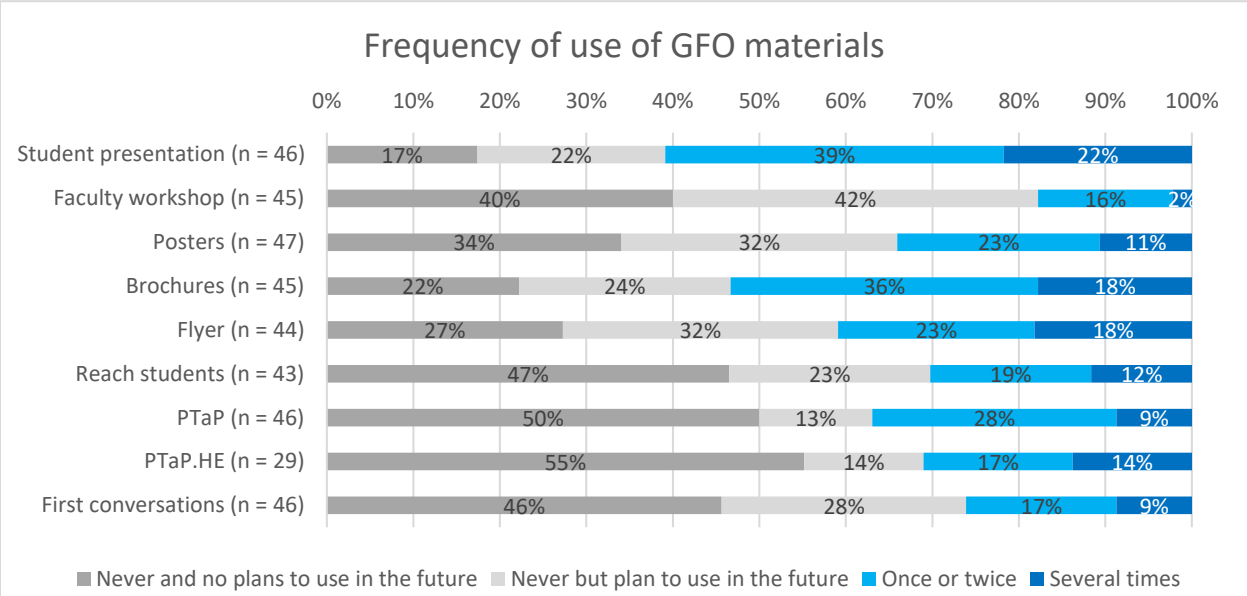
Values	Total (excl. missing for question)	
	115	
	#	*%*
Yes	56	48.7%
No	59	51.3%

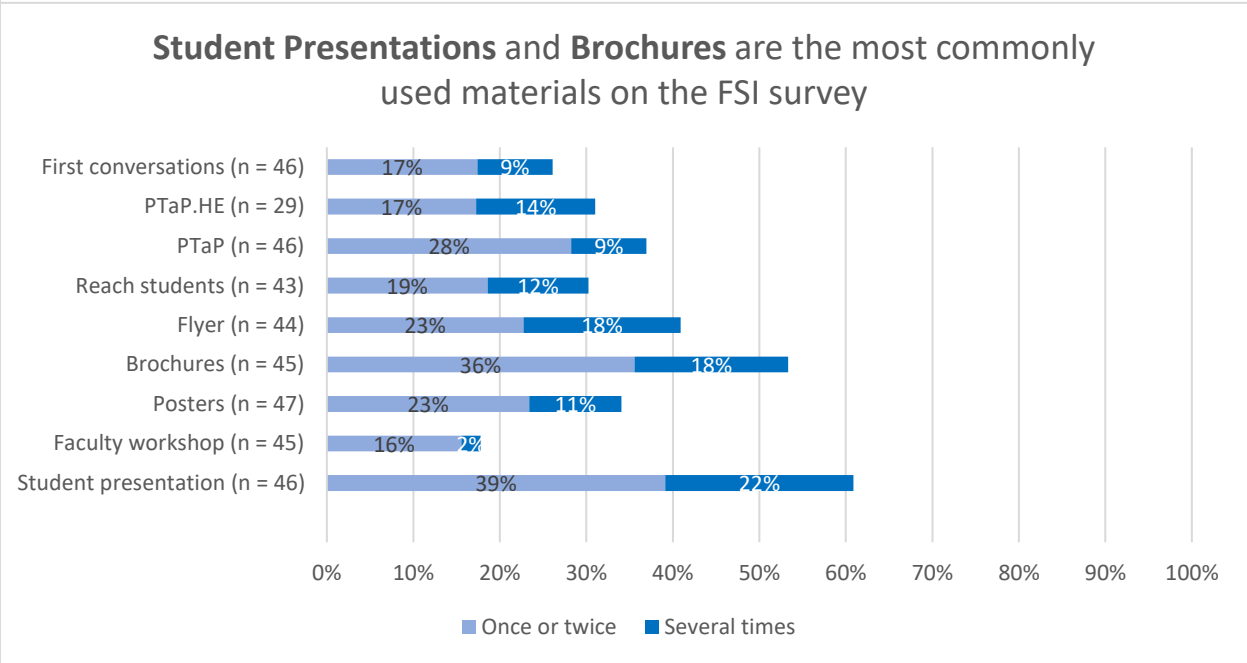
For those that said yes, we asked if the respondents would specify how they used GFO materials and in what context.

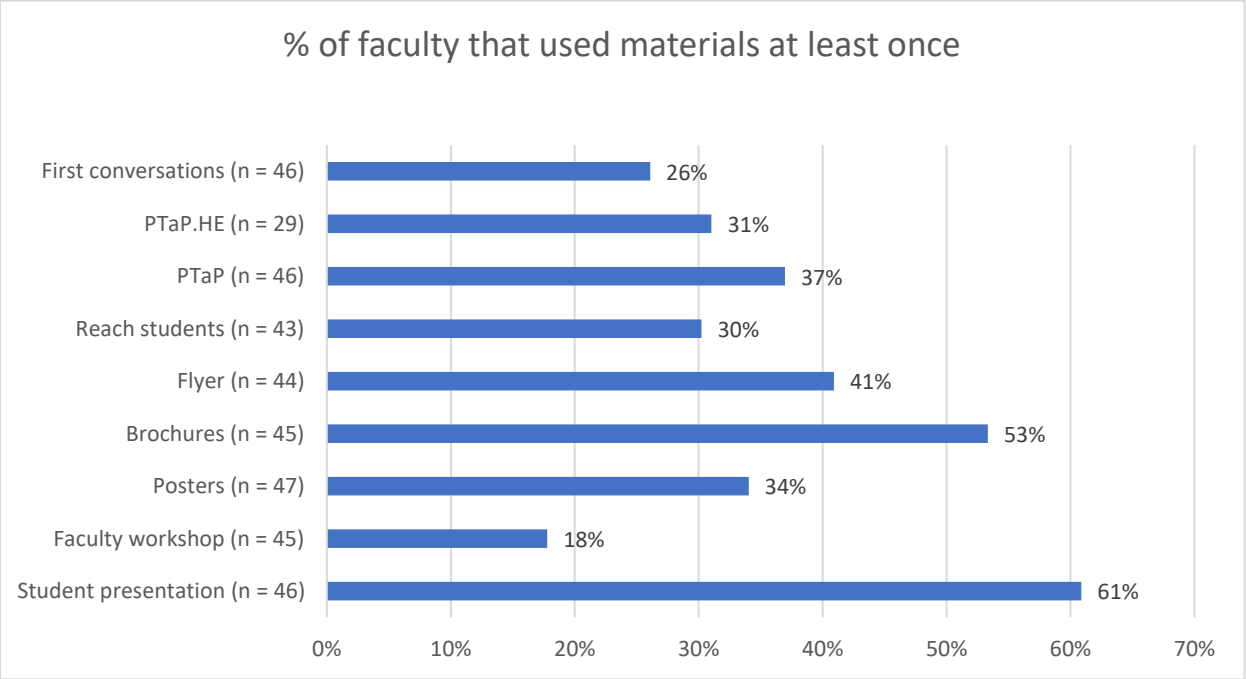
Their specified responses are summarized below:

- Shared GFO materials with students/presented in class - **33**
- Advertisement through media which includes Brochures, Online Posts, Flyers, Posters, and Videos – **11**
- Used GFO materials for recruitment purposes – **7**
- Used GFO materials for advising meetings – **4**
- Shared GFO materials with students interested in teaching – **4**
- Modified GFO materials for presentations – **3**
- Discussed GFO materials with students privately – **3**
- Talked about materials in department meetings – **2**
- Materials changed outlook on teaching in a positive way – **2**
- Shared on social media

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.



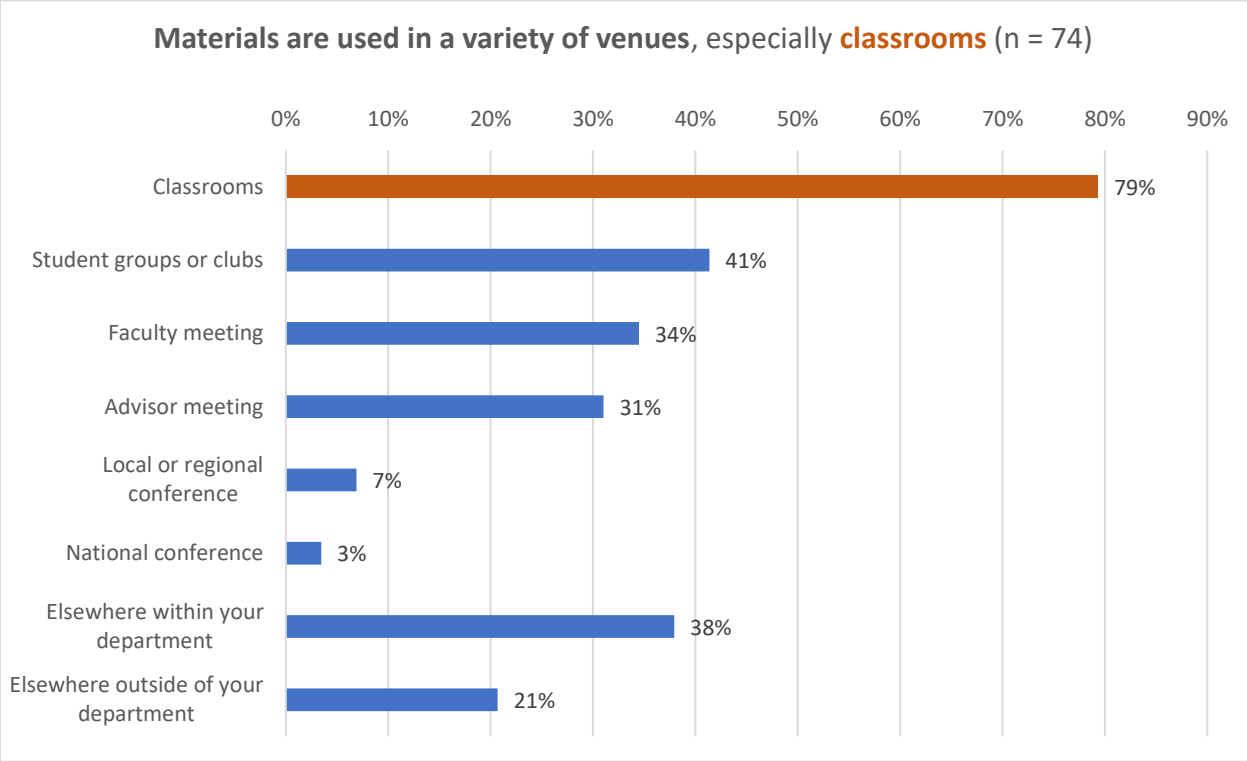




Other responses include:

- I rely on the content, and integrate it into my normal presentation / discussion, w/o calling out these external resources.
- The PTaP and PTaP.HE are administered externally, so i have not also given

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



Other responses include:

- New student orientation
- E-mailed students

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**
- I have more data to share with students - **2**
- I was happy to have the information from a trusted source.
- Needs to be shared with STEM faculty to increase referrals to teacher education.
- Knowing that teachers are happy helps me feel comfortable sending students into teaching 7-12 science.
- The idea of informing faculty at the department level about the teaching facts is very helpful in encouraging their own students to choose teaching as a career.
- It has helped me to be more open with my students about the advantages of a teaching career.
- influence us to get salary, benefits, etc. information for our region to inform students' and faculty misconceptions about teaching
- Get the Facts Out presents clear and useful information about Teaching careers, and thus the Department has used it many times.

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:

- Student Presentation – **4**
- Salary/Benefits information – **3**
- Posters – **3**
- Brochures – **2**
- Slides
- Web Page
- Recruiting materials
- Statistics from last year's survey
- Just got the materials for the first time

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

- No Challenges – **6**
- Reaching out during COVID – **2**
- Statistics didn't reflect local data – **2**
- Lack of time to manage my daily responsibilities and "evangelize" about teaching as a rewarding career.
- I'm able to change students' preconceptions, but faculty are harder to change. They are just so stubborn and stuck in their ways.
- Pharmacy really does pay better than teaching

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)	
	27	
	#	*%*
Yes	8	29.6%
No	19	70.4%

The specific materials that were modified are summarized below:

- Presentations – **5**
- Posters – **5**
- Brochures – **4**
- Slides – **2**

How did you modify them?

- Adopted local data – **7**
- Added school logo – **3**
- Added department contacts – **2**
- Cut slides for shorter presentations – **2**
- Summarized and bulleted info and gradually gave info throughout the semester
- Made my own PowerPoints and included Poll Everywhere Polls
- Extracted information for other flyers

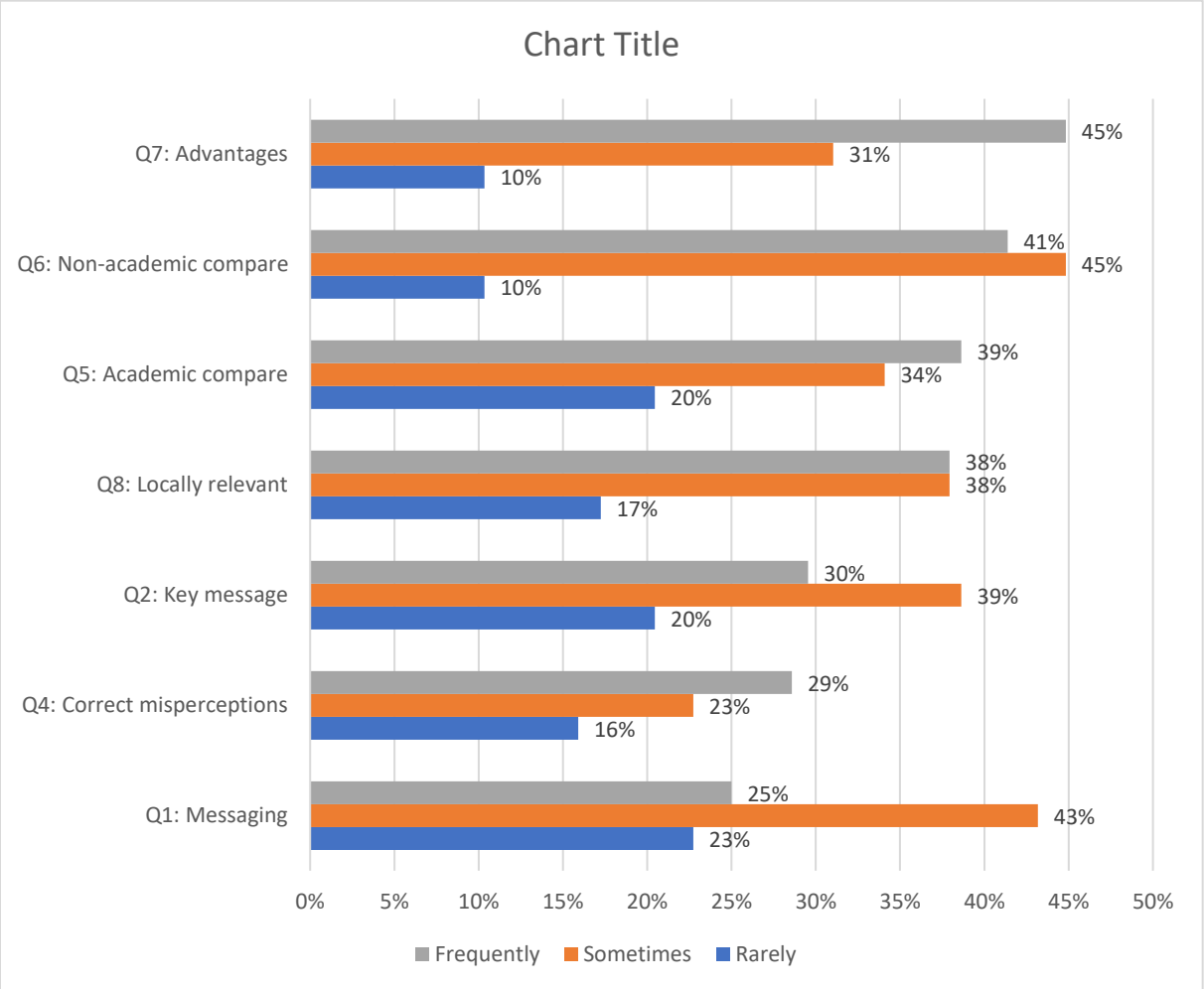
Why did you modify them?

- To reflect local data – **5**
- To make everyone in my courses know that teaching is not something “extra”
- To create a greater sense of belonging for students
- To make them more interactive
- For student recruitment

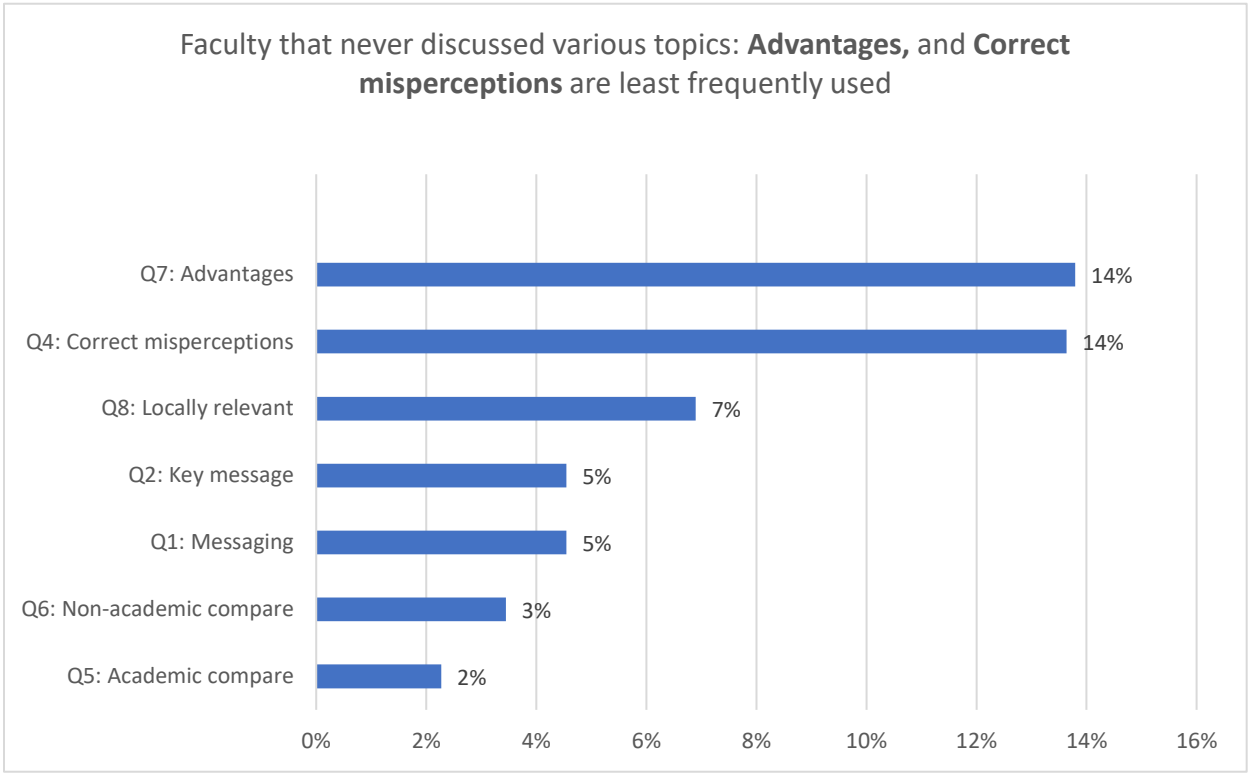
Future usage or non-usage of GFO resources

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

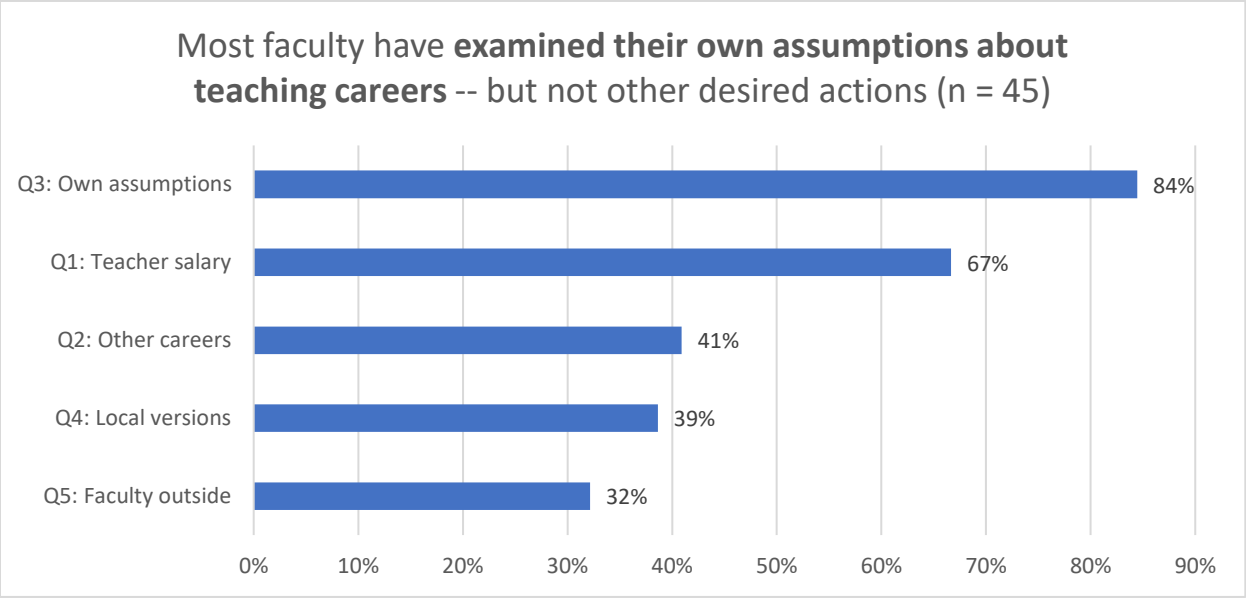


(Omitted question 3 due to poor wording that skewed results)

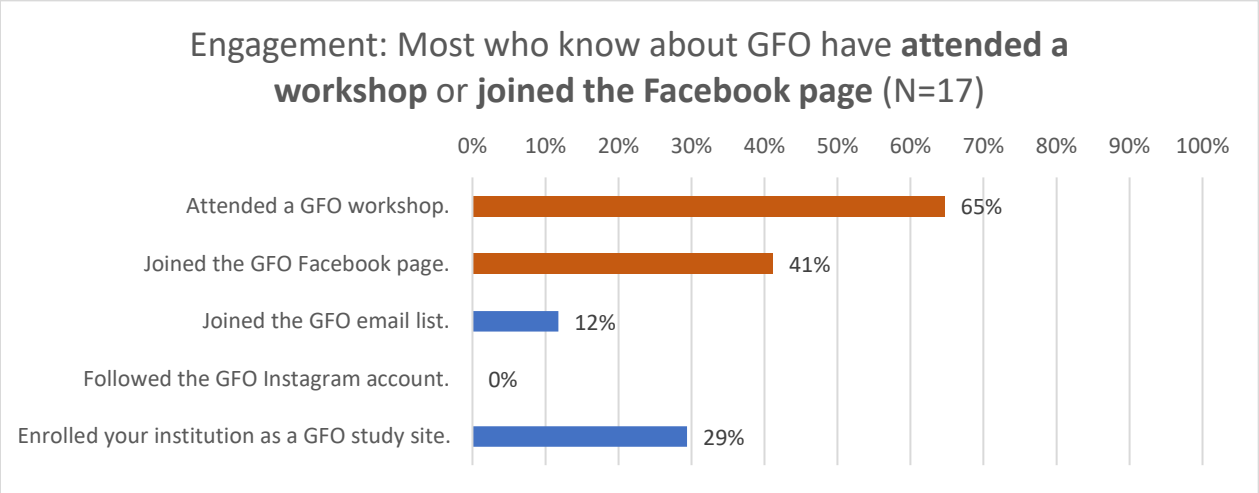

Faculty that never discussed various topics: **Advantages,** and **Correct misperceptions** are least frequently used
Q7: Advantages
14%
Q4: Correct misperceptions
14%
Q8: Locally relevant
7%
Q2: Key message
5%
Q1: Messaging
5%
Q6: Non-academic compare
3%
Q5: Academic compare
2%
0%
2%
4%
6%
8%
10%
12%
14%
16%

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



Other responses:

- site visits
- I'm registered as a GFO champion

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

- In my opinion, some of your survey questions can be taken multiple ways which will make your results less useful.
- One of my colleagues adapted Get the Facts Out materials for our institutions and I use those.
- Thanks for the great materials that are very easy to use and informative. Having a website that students can use and link them to all the teaching preparation programs can be helpful.
- Regarding Q64 of your survey, I am a 22-year school board veteran, so I already know quite a bit about local salaries and benefits packages for teachers.
- I think that my colleagues and I have a fairly accurate view of 7-12 teaching. This is not something that we discuss frequently, but we interact with K-12 teachers through our regional MAA affiliate, two of our professors' spouses are 7-12 math teachers. We are in touch with many of our graduates who are now teachers. In fact, some of those graduates teach our dual enrollment classes in high school classrooms. The 7-12 teaching profession is not a foreign concept to us.
- Note that I'm both a former HS teacher and helping with GFO here locally.
- Keep up the good work! The messaging and general approach is exactly what we need!
- Excellent resource. Thank you.

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:

- I was surprised to hear about the salary benefits of middle and high school teachers. I have mentioned to my students that we often hear the "worst case scenarios," but that's not the reality for most teachers. Very positive messaging!
- It impressed me with the satisfaction of teachers in their careers.
- Just by having the facts down.
- The facts seemed a bit misleading to me. In every area of the country I have lived, this is not true: "Grade 7-12 science and math teachers get paid more than most college faculty." K-12 teachers get paid more than adjuncts.
- I'm encouraged by the effort
- More awareness of the salary and benefit structures.
- I have questioned how much of the Get the Facts Out statistics apply to Kentucky. For example, your question on mid-career salary for 7 - 12 STEM teachers, I'm fairly certain the average (scale is set by state for all P-12 teachers) is between $40,000 and $50,000,

so your question didn't allow for a best response. I also know that late career teachers in KY make as much or more than I do at a university.

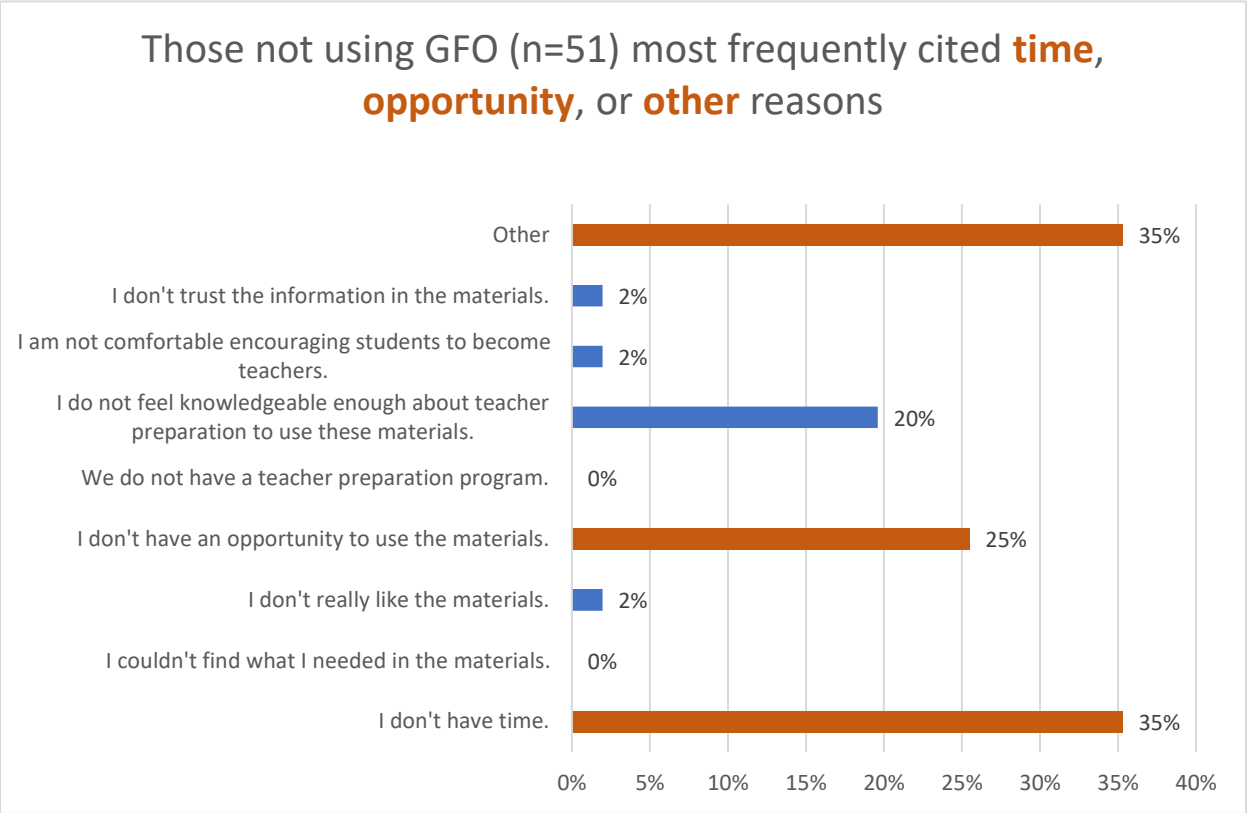
- While I haven't seen the materials, my department has discussed Get the Facts Out and encouraged us to take part in this survey. I assume we will learn more about it as time goes on. Most of my involvement in recruiting students to consider teaching is through the MSU Teach program, where students earn both a traditional degree and become certified to teach. It is powerful to give them a chance to work in the classroom beginning in their first year of college to see how they like it early on.
- Helps provide objective information about teaching professions.
- I learned many new facts which were unknown to me.
- I was surprised to learn about the high pay and job satisfaction of K-12 teachers, it contradicted my impressions about teaching from the news.

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

Values	**Total** (excl. missing for question)	
	59	
	#	*%*
Yes, I am interested	30	50.8%
No, thank you	29	49.2%

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.

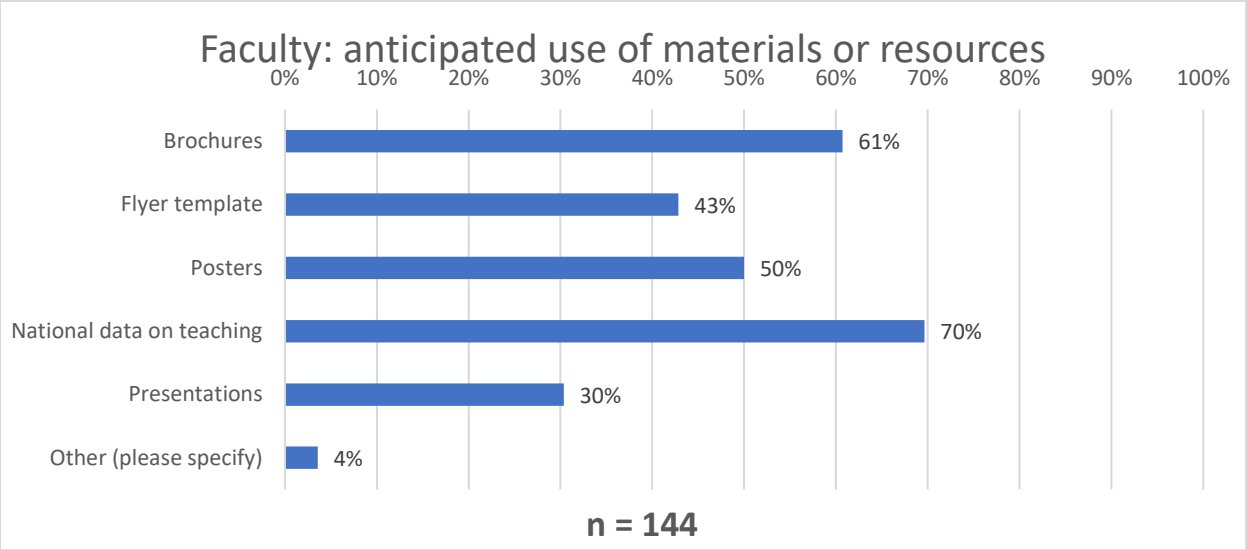
1. I don't have time
2. I couldn't find what I needed in the materials
3. I don't really like the materials
4. I don't have an opportunity to use the materials
5. We do not have a teacher preparation program
6. I do not feel knowledgeable enough about teacher preparation to use these materials
7. I am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



Other responses:

- We have other faculty that are better suited for this info – **6**
- I'm already in a primarily teacher-education role. Also, I felt like you were asking about hard copies, and I'd rather use digital materials.
- My role currently doesn't really make it something I do
- Students in math are already well aware of teaching careers.
- The facts seem false. I would like to know more about how the data was collected and interpreted.
- forgetful in integrating slides, don't like to distribute paper, usually try to talk about it
- This year I'm mostly teaching graduate students
- I am retiring.
- Maybe it's worthwhile. I just have other projects on my mind.
- I am not a career counselor, nor do my students ask me for career advice
- There are policies that allow to do specific things
- I have been encouraging students to pursue teaching since long before I knew about "Get the Facts Out". I don't see it changing how I interact with students in regards to a career as a middle- or high-school STEM educator

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



Other responses include:

- I would use any, as long as they are correct relative to KY, and nearby states.
- Email

We asked respondents how they anticipate using these materials.

- Sharing information with students/presenting in class – **19**
- Post materials around school (Hallways/doors/bulletin boards) – **11**
- Use for advising meetings – **8**
- Use for recruitment purposes – **3**
- Post materials online (social media/email/website) – **3**

We asked respondents why they anticipate using these materials.

- To promote teaching as a career – **11**
- To help students make informed decisions about careers – **6**
- To help me be informed so I can relay info to students – **4**
- To share information with students – **4**
- To share in advising meetings – **2**
- To correct misconceptions about teaching as a career
- I am a co-director of our secondary STEM education program.
- It is natural to supplement our MSU Teach program by providing additional materials and resources.
- We spent zero time on teaching as a specific profession in the first iteration of the course last year. I'd like to change that.
- Mentoring undergraduates
- To complement my goal to make education more accessible, diverse and lifelong.