Supplemental Material

Busch *et al*.

Supplemental Material for *"Few LGBTQ+ science and engineering instructors come out to students, despite potential benefits"*

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This supplemental document contains the following information:

Copy of instructor survey

In this survey, we are interested in hearing from science and engineering faculty and instructors who regularly teach undergraduates.

I *most closely* identify as:
- A tenured faculty member in science and/or engineering
- A tenure-track faculty member in science and/or engineering
- An instructor, lecturer, teaching track, or non-tenure-track faculty member in science and/or engineering
- A graduate student or teaching assistant in science and/or engineering
- Other, please describe.

Later in the survey, we may ask you whether you reveal specific identities to **undergraduates** in a science or engineering undergraduate course that you teach. We would like you to think of the science or engineering course you teach most often. If you teach two or more courses with equal frequency, pick one to consider for the rest of the survey.

Who does the course primarily serve?
- Introductory level undergraduates (first years, sophomores)
- Upper-level undergraduates (juniors, seniors)
- All undergraduates (introductory and upper)
- I do not teach undergraduates.

If "I do not teach undergraduates" was selected, sent to end of survey.

With regard to gender, I most closely identify as
- Man
- Woman
- Gender-queer or non-binary
- Other, please describe.
- Decline to state.

Do you identify as a member of the LGBTQ+ community?
- Yes
- No
- Decline to state.

If yes: Please select the word or words that best describe your identity(ies) within the LGBTQ+ community.

LGBTQ+ identities referring to sexuality and/or romantic attraction (e.g., gay, bisexual)
- Lesbian or Gay
- Bisexual
- Queer as it relates to my sexuality.

- Asexual
- Pansexual
- Other, please describe.
- Decline to state.

LGBTQ+ gender identities (e.g., transgender, non-binary)
- Transgender man
- Transgender woman
- Gender-queer or gender non-binary
- Other, please describe.
- Decline to state.

There are two sets of the following questions in the survey, one for LGBTQ+ gender identities and one for identities related to sexuality/romantic attraction.

For participants who indicated an LGBTQ+ gender identity:
Do you perceive that your LGBTQ+ gender identity (e.g., transgender, non-binary) is concealable; that is that people may not know that you identify this way unless you tell them?
- Yes, people may not know I identify this way.
- No

To what extent do you typically reveal your LGBTQ+ gender identity (e.g., transgender, non-binary) in the following contexts:

	Reveal to all	Reveal to some	Reveal to none
Work colleagues			
Research labs			
Graduate courses			
Undergraduate courses			

If reveal to some or all undergraduate courses: In 1-3 sentences, please describe how you most commonly reveal your LGBTQ+ gender identity (e.g., transgender, non-binary) to undergraduates enrolled in the science or engineering course you indicated earlier in the survey.

Have you identified on a public platform as LGBTQ+ due to your gender identity (e.g., transgender, non-binary) in a way that students might learn that you identify this way? (i.e., This identity is indicated on your faculty website, this identity is indicated on a public social media profile (e.g., Twitter bio), and/or you have a public profile on an identity-specific website (e.g., 500 queer scientists).)
- Yes
- No

If reveal to all undergraduates: To what extent was it your decision to reveal your LGBTQ+ gender identity (e.g., transgender, non-binary) identity to all undergraduates in this course?
- I **chose** to reveal this identity.
- It was not a decision; it was inadvertent or unintentional
- It was not a decision; I was outed by someone else.

If chose to reveal: Please select all of the factors that influenced your decision to reveal your LGBTQ+ gender identity (e.g., transgender, non-binary) to all undergraduates in this course.

- I felt like I had a personal relationship with the students in the course.
- I felt that revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) to students in this course was appropriate.
- I typically share my LGBTQ+ gender identity (e.g., transgender, non-binary) with people.
- I felt my LGBTQ+ gender identity (e.g., transgender, non-binary) was relevant to the students in this course.
- I felt my LGBTQ+ gender identity (e.g., transgender, non-binary) was relevant to the course content.
- I knew others in the department, such other faculty or instructors, who have revealed a similar identity to people in the department.
- I feel better when I can live authentically or be open with others about my LGBTQ+ gender identity (e.g., transgender, non-binary).
- I wanted to be an example to my students of someone with a LGBTQ+ gender identity (e.g., transgender, non-binary).
- I wanted to serve as a mentor to other students with LGBTQ+ gender identities (e.g., transgender, non-binary).
- I wanted to be known as a supporter of individuals who identify with an LGBTQ+ gender identity (e.g., transgender, non-binary)**.**
- I thought revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) could make me more relatable.
- I thought revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) could make students more comfortable.
- I thought revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) could help students understand me or my circumstances better.
- I thought that I could engage students in the course material by making a connection between my LGBTQ+ gender identity (e.g., transgender, non-binary) and the course content.
- Other, please describe.

If reveal to some or none of the undergraduates: Before taking this survey, did you perceive that revealing your LGBTQ+ gender identity (e.g., transgender, non-binary) to all undergraduates in this course could potentially benefit students?
- Yes
- No

If yes: Please describe how you think revealing your LGBTQ+ gender identity (e.g., transgender, non-binary) to all undergraduates in this course could potentially benefit students.

Please select all of the factors that influenced your decision to conceal your LGBTQ+ gender identity (e.g., transgender, non-binary) to some or all undergraduates in this course.

- I did not feel like I had a personal enough relationship with the students in this course.
- I thought that revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) to all undergraduates in this course was inappropriate.
- I typically do not share my LGBTQ+ gender identity (e.g., transgender, non-binary) with people.
- I did not feel my LGBTQ+ gender identity (e.g., transgender, non-binary) was relevant to the students in this course.
- I did not feel my LGBTQ+ gender identity (e.g., transgender, non-binary) was relevant to the course content.
- I did not know others in the department, such as other faculty or instructors, who had revealed a similar identity to people in the department.
- I had never thought about revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) to all students in this course.
- I was concerned students would have a negative opinion about my LGBTQ+ gender identity (e.g., transgender, non-binary).
- I was concerned that I would be subjected to departmental disciplinary action for revealing my LGBTQ+ gender identity (e.g., transgender, non-binary).
- I was concerned I could be fired for revealing my LGBTQ+ gender identity (e.g., transgender, non-binary).
- I was concerned that revealing my LGBTQ+ gender identity (e.g., transgender, non-binary) identity would waste class time.
- Other, please describe.

Participants who indicated an LGBTQ+ identity related to sexuality and/or romantic attraction responded to a parallel set of questions except the text "LGBTQ+ gender identity (e.g., transgender, non-binary)" was replaced with "LGBTQ+ identity referring to sexuality and/or romantic attraction (e.g., gay, bisexual)." Participants who reported both an LGBTQ+ gender and orientation identity responded to both sets of questions.

Table S1. Study I: Regression results from perceiving LGBTQ+ identity as concealable.
Reference is gay or lesbian.

Predictor	Beta	SE	p
(Intercept)	1.20	0.32	.0002
Bisexual	18.37	2069.61	.993
Queer+	19.37	2688.50	.995
Nonbinary	0.19	0.85	.823
Trans	-1.20	1.05	.254

Table S2. Study I: Coding rubric for how instructors revealed LGBTQ+ identity to undergraduates with frequencies. Contexts and ways in which instructors reveal their LGBTQ+ identity to all or some undergraduate students in their course.

How instructor revealed LGBTQ+ identity	Description	All % (n) N = 28[a]	Some % (n) N = 29[b]
Introduction	Participants described that they revealed their LGBTQ+ identity by disclosing it to students on the first day of class, in a self-introduction, or via the syllabus.	53.6 (15)	6.9 (2)
Spouse/ partner	Participants described that they revealed their LGBTQ+ identity by mentioning their spouse, partner, or family structure.	53.6 (15)	27.6 (8)
Publicly available	Participants described that they revealed their LGBTQ+ identity by affiliation with an organization or via social media.	17.9 (5)	3.4 (1)
Visible indicators	Participants described that they revealed their LGBTQ+ identity by their appearance, office decorations, or otherwise considered their LGBTQ+ identity to be visible or apparent.	17.9 (5)	17.2 (5)
Relevant to content	Participants described that they revealed their LGBTQ+ identity by relating it to course content.	14.3 (4)	20.7 (6)
Small group discussions	Participants described that they revealed their LGBTQ+ identity by having one-on-one or small group discussions with students in settings such as office hours.	7.1 (2)	34.5 (10)
Struggling students	Participants described that they revealed their LGBTQ+ identity by having one-on-one conversations with a student who is struggling with their own LGBTQ+ identity.	0.0 (0)	10.3 (3)

[a]Of the 30 participants who revealed an LGBTQ+ identity to some undergraduates and received this question, 2 (6.7%) did not provide a response. Of the 28 responses, 1 (3.6%) did not fall into one of the categories described above. [b]Of the 30 participants who revealed an LGBTQ+ identity to all undergraduates and received this question, 1 (3.3%) did not provide a response. Of the 29 responses, 1 (3.4%) did not fall into one of the categories described above.

Table S3. Study I: Coding rubric for potential student benefits from instructor revealing LGBTQ+ identity during class with example quotes and frequencies.

Theme	Description	% (n) responses	Example quote
Instructor serves as a role model to LGBTQ+ students	Participant describes that revealing their LGBTQ+ identity could benefit students by providing LGBTQ+ students a role model or example of representation in science.	65.9 (29)	Instructor 1048: "I think that having role models of all sorts can potentially benefit students, and this is especially true for concealable identities."
LGBTQ+ identities are normalized	Participant describes that revealing their LGBTQ+ identity could benefit students by normalizing LGBTQ+ identities and providing representation to benefit all students (not only LGBTQ+ students).	27.3 (12)	Instructor 1068: "I think when it [being a part of the LGBTQ+ community] is just part of your identity it can normalize perceptions."
Instructor becomes a known supporter of the LGBTQ+ community	Participant describes that revealing their LGBTQ+ identity could benefit students by providing support, validation, or allyship to LGBTQ+ students or make them feel safer.	27.3 (12)	Instructor 249: "Could be helpful to trans-identifying students in knowing that there are faculty with similar identities who they could potentially turn to for support if needed, especially given being located in a 'red state'."
Students feel more comfortable	Participant describes that revealing their LGBTQ+ identity could benefit students by increasing students' comfort in the course, sense of belonging, or feeling	13.6 (6)	Instructor 332: "[Revealing my LGBTQ+ identity could benefit students by] making LGBTQ+ students feel less alone and more welcome in the major."

	included in science.		

Of the 44 responses, 2 (4.5) did not fall into one of the categories described above.

Table S4. Study I: Coding rubric for additional reasons instructors conceal their LGBTQ+ identity from all undergraduate students with example quotes and frequencies.

Theme	Description	% (n) responses	Example quote
Anticipated personal harm	Participant describes that they conceal their LGBTQ+ identity because they anticipate negative consequences personally or professionally from revealing, or prior disclosure was negative.	40.0 (8)	Instructor 1979: "I thought I would get even more abuse from students than I already deal with."
Irrelevant to teaching	Participant describes that they conceal their LGBTQ+ identity because it is not relevant to course material, to teaching science, or they perceive it as too personal.	35.0 (7)	Instructor 1333: "Why would I reveal personal information which is irrelevant to student learning outcomes in the course? If a student knows/discovers I am gay, if they have an issue, it is their issue. I am here to teach science."
Instructor's evolving identity	Participant describes that they conceal their LGBTQ+ identity because their understanding of their own identity is in flux, or they do not know how they would come out.	10.0 (2)	Instructor 494: "A large part, for me, is just my own evolving understanding of my identity: I'm of an age where these kinds of things were never discussed."
Of the 20 participants who provided an additional reason, 4 responses (20.0%) fell outside the categories described above.			

Study II: Copy of undergraduate survey

We value your full and honest opinions, and **nobody will ever associate your responses with your name, including your instructor**.

You will be evaluating a teaching demonstration video of an applicant for a biology instructor position so that we can better understand undergraduates' perceptions of science instruction.

There are no right or wrong answers to any of the questions in the survey, we just want to know your impressions.

This lecture covers a topic that may be covered in an introductory level biology course. Click play (triangle) to watch the video. ***Please watch the video in its entirety and proceed to the next page once you have finished watching the video clip***.

[PARTICIPANTS WERE RANDOMLY ASSIGNED TO WATCH
THE CONTROL OR REVEAL VIDEO]

Would you recommend a course with this instructor to one of your peers?
- Yes
- No

Based on the instructor's teaching video, please answer the following questions. *7-point scale from not at all (1) to very much (7)*
- How likely would you be to suggest that the instructor is invited to interview for a teaching job at your university?
- How likely would you be to suggest that the instructor is hired for a teaching job at your university?
- How likely do you think it is that the instructor would actually be recommended to be hired for a teaching job at your university?
- Did the instructor strike you as competent?
- How likely is it that the instructor has the necessary skills for this job?
- How qualified do you think the instructor is?
- How much did you like the instructor?
- Would you characterize the instructor as someone you would want to take a class from?
- Do you think the instructor would fit in well with other instructors at your institution?

Indicate to what extent you agree with each of the following statements in regard to the instructor. *7-point scale from strongly disagree (1) to strongly agree (7)*
- This person seems to think like me
- This person doesn't seem to behave like me
- This person seems different from me
- This person seems to share my values
- This person seems to be like me

- This person seems to treat people like I do
- This person doesn't seem to think like me
- This person seems similar to me
- This person doesn't seem to share my values
- This person seems to behave like me
- This person seems unlike me
- This person doesn't seem to treat people like I do
- This person seems to have thoughts and ideas that are similar to mine
- This person seems to express attitudes different from mine
- This person seems to have a lot in common with me

Based on the instructor's teaching video, please rate the following statements. *5-point scale from not at all (1) to very much so (5)*
- The instructor would likely understand you.
- The instructor would likely encourage you.
- The instructor would likely care about you.
- The instructor would likely treat you fairly.
- The instructor would likely communicate effectively with you.
- The instructor would likely respect you.
- The instructor would likely earn your respect.
- The instructor would likely be approachable when you have questions or comments.
- In general, you would likely be satisfied with your relationship with the instructor.

Please indicate how you would likely feel when approaching this instructor about issues and/or ideas by selecting a circle between the pairs of adjectives below. The closer the circle is to an adjective, the more certain you are of your answer. *7-point scale from very strong feelings (1) to very strong feelings (7) with undecided (4)*
- Friendly/unfriendly
- Warm/cold
- Inviting/uninviting
- Open/closed
- Accessible/inaccessible
- Responsive/unresponsive
- Welcoming/unwelcoming
- Thoughtful/thoughtless
- Courteous/Rude
- Receptive/unreceptive
- Sensitive/insensitive
- Practical/impractical
- Motivated/unmotivated
- Involved/uninvolved
- Sociable/unsociable
- Approachable/unapproachable
- Sympathetic/unsympathetic
- Easy to talk to/not easy to talk to
- Open-minded/closed-minded
- Respectful/disrespectful

For the next set of questions, imagine that you are a student in this instructor's course and base your responses on your initial impressions of the instructor.

If you were a student in this instructor's course, to what extent do you agree with each of the following statements? *6-point scale from strongly disagree (1) to strongly agree (6)*
- I could see myself as part of the course community.
- I would be enthusiastic about this course.
- I would feel a sense of belonging to this course.
- I would be happy to be enrolled in this course.
- I feel that I would be a member of the course community.
- This course would be one of the best courses at this institution.

Please indicate the extent to which you agree with the following statements if you were a student in this instructor's course. *7-point scale from strongly disagree (1) to strongly agree (7)*
- I would feel comfortable offering my own ideas in this science course.
- I would feel like it's okay to make mistakes in front of others in this science course.
- I would feel like I belong in this science course.
- I would feel like it's okay to ask 'dumb' questions in this science course.

After sharing information about her education, the instructor shared personal things about herself. Please select all of the personal things you remember her sharing.

The instructor:

- is a first-generation college student
- likes Chipotle
- is a mom
- likes running
- is a member of the LGBTQ+ community
- has a cat
- is religious
- has a dog
- likes swimming
- likes Five Guys
- likes hiking

In general, a college science instructor revealing their LGBTQ+ identity during class
- Would be perceived **negatively** by undergraduate students in the class.
- Would be perceived as **neutral** by undergraduate students in the class.
- Would be perceived **positively** by undergraduate students in the class.

Based on preceding response: Why do you think undergraduate students would perceive a college science instructor revealing their LGBTQ+ identity during class [positively/as neutral/negatively]? *open-ended*

In what circumstances, if any, do you think it would be **beneficial** for a college science instructor to reveal their LGBTQ+ identity to undergraduates during class? *open-ended*

In what circumstances, if any, do you think it would be **detrimental** for a college science instructor to reveal their LGBTQ+ identity to undergraduates during class? *open-ended*

To what extent do you agree with the following statement?

I think it is completely appropriate for science instructors to reveal that they are a member of the LGBTQ+ community. *6-point scale from strongly disagree (1) to strongly agree (6)*

Based on preceding response: Please explain why you think it is **(not) appropriate** for science instructors to reveal that they are a member of the LGBTQ+ community in the classroom.

With regard to gender, I most closely identify as:
- Woman
- Man
- Gender-queer or non-binary
- A gender not listed, please describe
- Decline to state

I *most closely* identify as
- Christian – Protestant
- Christian – Catholic
- Christian – Latter-day Saint (LDS)/Mormon
- Christian – Other, please specify
- Muslim
- Jewish
- Hindu
- Buddhist
- Agnostic
- Atheist
- Not religious
- An identity not listed, please specify
- Decline to state

Do you identify as a member of the LGBTQ+ community (e.g., lesbian, gay, bisexual, trans, queer/questioning, intersex, asexual/aromantic)?
- Yes
- No
- Decline to state

Table S5. Study II: Regression results from student perceptions of instructor. Reference groups are control, men, not religious, not LGBTQ+.

Outcome	Predictor	Beta	SE	Standardized beta	Standardized SE	*p*
Hireability	(Intercept)	5.726	0.125	0.000	0.048	0.000
	Treatment (reveal)	0.125	0.106	0.056	0.048	0.240
	Gender (woman/non-binary)	0.089	0.114	0.038	0.048	0.437
	Religion (not Christian)	-0.073	0.160	-0.024	0.053	0.648
	Religion (Christian)	0.078	0.121	0.035	0.054	0.518
	LGBTQ+ (yes)	-0.014	0.138	-0.005	0.051	0.917
Competence	(Intercept)	6.068	0.108	0.000	0.048	0.000
	Treatment (reveal)	0.178	0.092	0.092	0.048	0.053
	Gender (woman/non-binary)	0.018	0.098	0.009	0.048	0.857
	Religion (not Christian)	-0.158	0.138	-0.060	0.053	0.255
	Religion (Christian)	-0.047	0.104	-0.024	0.054	0.655
	LGBTQ+ (yes)	-0.015	0.119	-0.006	0.051	0.902
Likeability	(Intercept)	5.656	0.123	0.000	0.047	0.000
	Treatment (reveal)	0.201	0.105	0.091	0.048	0.056
	Gender (woman/non-binary)	0.173	0.113	0.074	0.048	0.125
	Religion (not Christian)	-0.011	0.158	-0.003	0.053	0.947
	Religion (Christian)	0.104	0.119	0.047	0.054	0.384
	LGBTQ+ (yes)	0.111	0.137	0.041	0.051	0.418

Attitude homophily	(Intercept)	4.522	0.095	0.000	0.047	0.000
	Treatment (reveal)	0.018	0.081	0.010	0.047	0.828
	Gender (woman/non-binary)	0.253	0.087	0.137	0.047	0.004
	Religion (not Christian)	-0.321	0.122	-0.136	0.052	0.009
	Religion (Christian)	0.000	0.092	0.000	0.053	0.999
	LGBTQ+ (yes)	0.208	0.105	0.099	0.050	0.049
Rapport	(Intercept)	4.249	0.071	0.000	0.047	0.000
	Treatment (reveal)	0.137	0.061	0.107	0.047	0.025
	Gender (woman/non-binary)	0.100	0.065	0.073	0.048	0.125
	Religion (not Christian)	-0.139	0.092	-0.079	0.052	0.131
	Religion (Christian)	0.071	0.069	0.055	0.053	0.301
	LGBTQ+ (yes)	0.018	0.079	0.012	0.051	0.821
Approachability	(Intercept)	2.128	0.115	0.000	0.047	0.000
	Treatment (reveal)	-0.064	0.098	-0.031	0.048	0.516
	Gender (woman/non-binary)	-0.211	0.105	-0.096	0.048	0.045
	Religion (not Christian)	0.193	0.148	0.069	0.053	0.191
	Religion (Christian)	0.013	0.111	0.007	0.054	0.904
	LGBTQ+ (yes)	0.023	0.127	0.009	0.051	0.856

Table S6. Study II: Disaggregated mean and SD by gender for each outcome.

	Men		Woman/non-binary	
Outcome	Mean	SD	Mean	SD
Hireability	5.74	1.12	5.85	1.16
Competence	6.04	0.91	6.05	1.08
Likeability	5.76	1.11	5.94	1.16
Attitude homophily	4.51	0.87	4.75	0.83
Rapport	4.29	0.65	4.37	0.67
Approachability	2.18	1.01	1.98	1.03

Table S7. Study II: Disaggregated mean and SD by religion for each outcome.

	Christian		Religious - not Christian		Nonreligious	
Outcome	Mean	SD	Mean	SD	Mean	SD
Hireability	5.89	1.16	5.79	1.08	5.86	1.05
Competence	6.08	1.04	6.01	0.89	6.15	0.91
Likeability	5.94	1.16	5.88	1.04	5.90	1.04
Attitude homophily	4.71	0.84	4.43	0.94	4.78	0.82
Rapport	4.43	0.64	4.23	0.64	4.37	0.63
Approachability	1.99	1.16	2.16	0.94	1.97	0.89

Table S8. Study II: Disaggregated mean and SD by LGBTQ+ status for each outcome.

|	Not LGBTQ+		LGBTQ+	
Outcome	Mean	SD	Mean	SD
Hireability	5.79	1.15	5.83	1.17
Competence	6.02	1.02	6.13	1.07
Likeability	5.85	1.15	5.97	1.16
Attitude homophily	4.61	0.84	4.89	0.87
Rapport	4.34	0.65	4.39	0.71
Approachability	2.05	1.02	1.99	1.04

Table S9. Study II: Regression results from student perceptions of instructor - interactive models. Reference groups are control, men, non-religious, not LGBTQ+.

Outcome	Predictor	Beta	SE	Standardized beta	Standardized SE	*p*
Hireability	(Intercept)	5.789	0.152	-0.001	0.048	0.000
	Treatment (reveal)	-0.020	0.240	0.056	0.048	0.933
	Gender (woman/non-binary)	-0.066	0.151	0.036	0.048	0.662
	Religion (not Christian)	-0.111	0.219	-0.029	0.053	0.612
	Religion (Christian)	0.153	0.159	0.037	0.054	0.336
	LGBTQ+ (yes)	0.070	0.189	-0.002	0.052	0.710
	Treatment:Gender (woman/non-binary)	0.348	0.231	0.073	0.048	0.132
	Treatment:Religion (not Christian)	0.057	0.322	0.009	0.053	0.858
	Treatment:Religion (Christian)	-0.162	0.245	-0.036	0.054	0.510
	Treatment:LGBTQ+	-0.172	0.277	-0.032	0.051	0.536
Competence	(Intercept)	6.132	0.131	-0.006	0.047	0.000
	Treatment (reveal)	0.034	0.206	0.091	0.048	0.868
	Gender (woman/non-binary)	-0.103	0.130	0.005	0.048	0.428
	Religion (not Christian)	-0.355	0.189	-0.070	0.053	0.060
	Religion (Christian)	0.060	0.136	-0.023	0.054	0.659
	LGBTQ+ (yes)	-0.008	0.162	-0.003	0.051	0.959

	Treatment:Gender (woman/non-binary)	0.260	0.198	0.063	0.048	0.191
	Treatment:Religion (not Christian)	0.394	0.277	0.074	0.052	0.156
	Treatment:Religion (Christian)	-0.241	0.211	-0.062	0.054	0.253
	Treatment:LGBTQ+	0.002	0.239	0.000	0.051	0.994
Likeability	(Intercept)	5.745	0.150	-0.008	0.047	0.000
	Treatment (reveal)	-0.015	0.237	0.089	0.047	0.949
	Gender (woman/non-binary)	0.103	0.149	0.073	0.048	0.488
	Religion (not Christian)	-0.179	0.216	-0.008	0.053	0.410
	Religion (Christian)	0.157	0.156	0.047	0.054	0.316
	LGBTQ+ (yes)	-0.095	0.186	0.038	0.051	0.609
	Treatment:Gender (woman/non-binary)	0.160	0.227	0.034	0.048	0.482
	Treatment:Religion (not Christian)	0.354	0.317	0.058	0.052	0.266
	Treatment:Religion (Christian)	-0.119	0.241	-0.027	0.054	0.622
	Treatment:LGBTQ+	0.454	0.274	0.084	0.051	0.098
Attitude homophily	(Intercept)	4.598	0.115	-0.003	0.046	0.000
	Treatment (reveal)	-0.178	0.181	0.009	0.046	0.327
	Gender (woman/non-binary)	0.140	0.114	0.142	0.047	0.218
	Religion (not Christian)	-0.163	0.166	-0.130	0.051	0.326

	Religion (Christian)	0.043	0.120	0.001	0.052	0.720
	LGBTQ+ (yes)	0.004	0.142	0.092	0.050	0.980
	Treatment:Gender (woman/non-binary)	0.280	0.174	0.075	0.047	0.108
	Treatment:Religion (not Christian)	-0.331	0.243	-0.070	0.051	0.173
	Treatment:Religion (Christian)	-0.095	0.185	-0.027	0.053	0.608
	Treatment:LGBTQ+	0.435	0.209	0.103	0.050	0.038
Rapport	(Intercept)	4.263	0.087	-0.006	0.047	0.000
	Treatment (reveal)	0.104	0.137	0.105	0.047	0.448
	Gender (woman/non-binary)	0.049	0.086	0.072	0.048	0.569
	Religion (not Christian)	-0.154	0.125	-0.083	0.052	0.218
	Religion (Christian)	0.166	0.090	0.054	0.053	0.067
	LGBTQ+ (yes)	-0.071	0.107	0.008	0.051	0.507
	Treatment:Gender (woman/non-binary)	0.114	0.131	0.041	0.048	0.385
	Treatment:Religion (not Christian)	0.021	0.183	0.006	0.052	0.907
	Treatment:Religion (Christian)	-0.221	0.139	-0.085	0.053	0.113
	Treatment:LGBTQ+	0.192	0.158	0.061	0.050	0.226
Approachability	(Intercept)	2.148	0.141	0.001	0.048	0.000
	Treatment (reveal)	-0.119	0.222	-0.031	0.048	0.590

Gender (woman/non-binary)	-0.182	0.140	-0.094	0.048	0.193
Religion (not Christian)	0.230	0.203	0.073	0.053	0.258
Religion (Christian)	-0.067	0.147	0.007	0.054	0.649
LGBTQ+ (yes)	-0.034	0.174	0.008	0.052	0.846
Treatment:Gender (woman/non-binary)	-0.054	0.213	-0.012	0.048	0.799
Treatment:Religion (not Christian)	-0.060	0.297	-0.011	0.053	0.839
Treatment:Religion (Christian)	0.188	0.226	0.045	0.054	0.407
Treatment:LGBTQ+	0.122	0.256	0.024	0.051	0.635
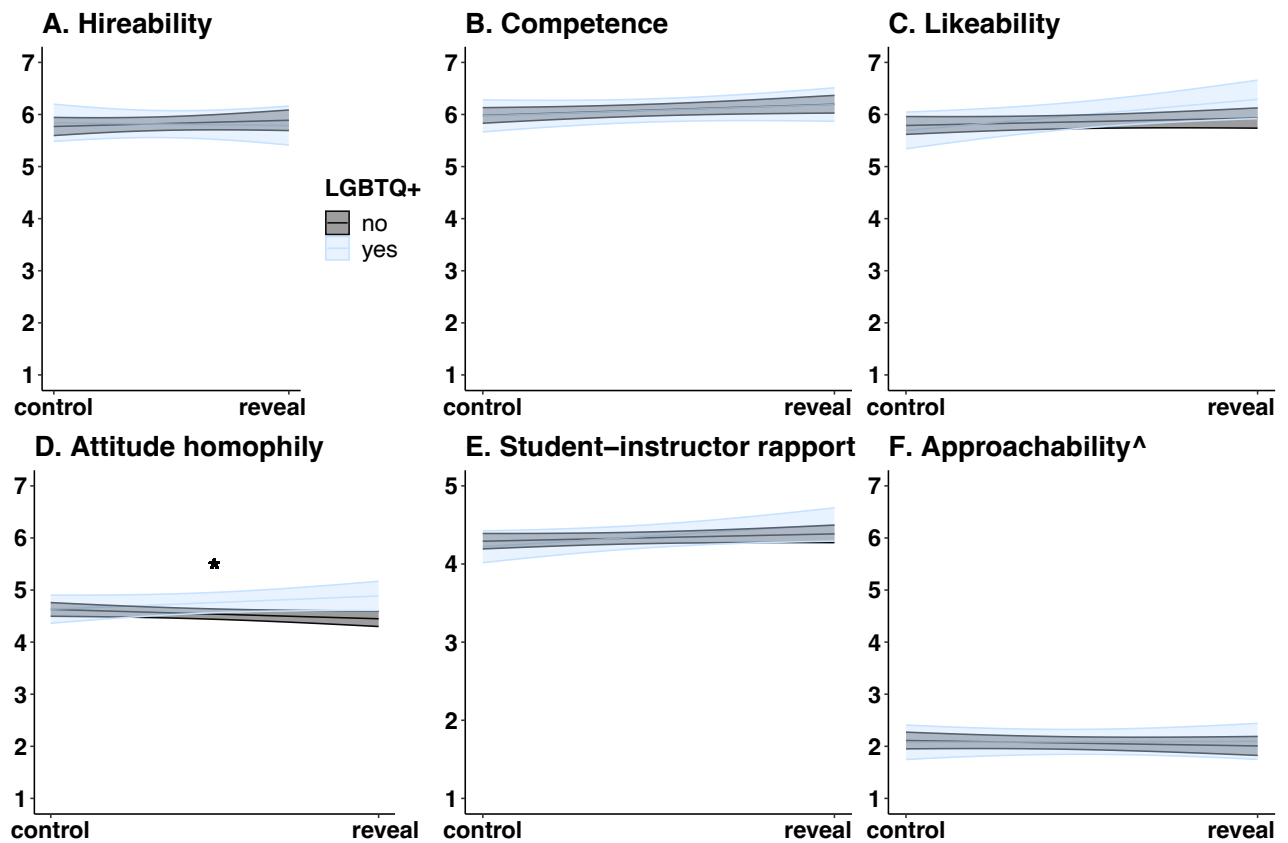
Figure S1. Treatment*LGBTQ+ status interactive term for **A.** hireability, **B.** competence, **C.** likeability, **D.** attitude homophily, **E.** student-instructor rapport, and **F.** approachability. ^Lower values for approachability indicate perceiving the instructor as *more* approachable. Statistical significance ($p < .05$) indicated by an asterisk (*).

Table S10. Study II: Regression results from class environment. Reference groups are control, men, non-religious, not LGBTQ+.

Outcome	Predictor	Beta	SE	Standardized beta	Standardized SE	*p*
Sense of belonging	(Intercept)	4.385	0.121	0.000	0.047	0.000
	Treatment (reveal)	-0.011	0.103	-0.005	0.048	0.912
	Gender (woman/non-binary)	0.195	0.111	0.084	0.048	0.079
	Religion (not Christian)	-0.045	0.156	-0.015	0.053	0.771
	Religion (Christian)	0.138	0.117	0.063	0.054	0.240
	LGBTQ+ (yes)	0.150	0.135	0.057	0.051	0.265
Feelings of morale	(Intercept)	4.358	0.123	0.000	0.048	0.000
	Treatment (reveal)	0.002	0.104	0.001	0.048	0.981
	Gender (woman/non-binary)	0.169	0.112	0.073	0.048	0.131
	Religion (not Christian)	-0.029	0.157	-0.010	0.053	0.853
	Religion (Christian)	0.071	0.119	0.032	0.054	0.552
	LGBTQ+ (yes)	0.184	0.136	0.069	0.051	0.177
Class comfort	(Intercept)	5.434	0.128	0.000	0.048	0.000
	Treatment (reveal)	0.175	0.109	0.076	0.048	0.110
	Gender (woman/non-binary)	0.014	0.117	0.006	0.048	0.908
	Religion (not Christian)	-0.254	0.165	-0.081	0.053	0.124
	Religion (Christian)	-0.073	0.124	-0.032	0.054	0.557
	LGBTQ+ (yes)	-0.050	0.142	-0.018	0.051	0.722

Table S11. Study II: Regression results perception of instructor coming out. Reference groups are control, men, non-religious, not LGBTQ+.

Predictor	Perceived negatively					Perceived positively				
	Beta	SE	OR	z	*p*	Beta	SE	OR	z	*p*
(Intercept)	-2.720	0.524	0.066	-5.190	0.000	-1.001	0.255	0.367	-3.927	0.000
Treatment (reveal)	-0.100	0.432	0.905	-0.231	0.818	0.235	0.211	1.265	1.115	0.265
Gender (woman/non-binary)	-0.565	0.431	0.568	-1.311	0.190	0.228	0.233	1.257	0.981	0.327
Religion (not Christian)	0.263	0.729	1.300	0.360	0.718	-0.317	0.329	0.728	-0.965	0.335
Religion (Christian)	0.908	0.501	2.478	1.812	0.070	-0.015	0.241	0.985	-0.062	0.951
LGBTQ+ (yes)	1.017	0.522	2.764	1.947	0.052	0.517	0.267	1.678	1.935	0.053

Table S12. Study II: Coding rubric for why an instructor coming out would be perceived as positive, neutral, or negative.

Theme	Description
Positive impact	
Humanize instructor	Student describes that an instructor coming out would be viewed positively by undergraduates because it helps to humanize the instructor, make them more accessible, relatable, open to students, and transparent.
Benefit LGBTQ+ students	Student describes that an instructor coming out would be viewed positively by undergraduates because it would benefit LGBTQ+ students by being an ally, role model, increasing representation, and making them more comfortable.
Inclusive classroom environment	Student describes that an instructor coming out would be viewed positively by undergraduates because all students would feel more welcomed and included in the course or in science.
Generational norms	Student describes that an instructor coming out would be viewed positively by undergraduates because the current generation of college students is more accepting than prior generations and are welcoming of LGBTQ+ individuals.
Institutional norms	Student describes that an instructor coming out would be viewed positively by undergraduates because students at the particular institution is more liberal and accepting of LGBTQ+ individuals.
Benefit instructor	Student describes that an instructor coming out would be viewed positively by undergraduates because it would benefit the instructor by allowing them to be themselves or result in more positive treatment from students.
Generally positive impression	Student describes that an instructor coming out would be viewed positively by undergraduates because it would generally be viewed as positive; these responses are vague and describe general positive feelings about an instructor coming out.
Indifference	Student describes that an instructor coming out would be viewed positively by undergraduates because it does not matter to students, so overall it would be seen positively.
Neutral impact	
Indifference	Student describes that an instructor coming out would be viewed as neutral by undergraduates because students are indifferent and do not care about others' LGBTQ+ identities.
Irrelevant	Student describes that an instructor coming out would be viewed as neutral by undergraduates because it is irrelevant to the course and does not affect teaching and learning in the class.
Net neutral	Student describes that an instructor coming out would be viewed as neutral by undergraduates because some students will view it positively and some will view it negatively, and those reactions will even out.
Generational norms	Student describes that an instructor coming out would be viewed as neutral by undergraduates because the current generation of college students is

	more accepting than prior generations and view LGBTQ+ individuals neutrally, or the norms of the department, institution, or field of science are such that LGBTQ+ identities are viewed neutrally.
Negative impact	
Unprofessional	Student describes that an instructor coming out would be viewed negatively by undergraduates because it is too personal or private for the setting or is unprofessional or inappropriate.
Irrelevant	Student describes that an instructor coming out would be viewed negatively by undergraduates because it is irrelevant to the course and does not affect teaching or learning in the class.
Prejudice	Student describes that an instructor coming out would be viewed negatively by undergraduates because students carry prejudice or bias against LGBTQ+ individuals or are homophobic.
Political	Student describes that an instructor coming out would be viewed negatively by undergraduates because LGBTQ+ identities are viewed as political and revealing them is seen as too political for the classroom.

Table S13. Study II: Coding rubric for instances where an instructor coming out would be beneficial or detrimental.

Theme	Description
Beneficial	
LGBTQ+ students	Student describes that an instructor coming out would be beneficial when there are LGBTQ+ students who would specifically benefit.
Relevant to content	Student describes that an instructor coming out would be beneficial when their LGBTQ+ identity was relevant to course content or course material, such as in a gender or sexuality class.
Humanize instructor	Student describes that an instructor coming out would be beneficial when helping to humanize the instructor or make them seem more open or relatable to students. Students may specifically mention that it would be beneficial to reveal during a self-introduction or at the beginning of the course.
Inclusive classroom	Student describes that an instructor coming out would be beneficial when it would help to create a more inclusive class environment for all students and increase the representation of LGBTQ+ individuals for all students.
Neutral	Student describes that an instructor coming out would not necessarily be beneficial but would be neutral and the instructor can choose whether they reveal their LGBTQ+ identity.
Always	Student describes that an instructor coming out would always be beneficial.
Never	Student describes that an instructor coming out would never be beneficial.
Detrimental	
Students' prejudiced views	Student describes that an instructor coming out would be detrimental when students in the class have anti-LGBTQ+ views, are homophobic, or if revealing an LGBTQ+ identity resulted in discrimination, prejudice, or loss of credibility or respect. Students may specifically note that these views are rooted in religious or political beliefs.
Student discomfort and isolation	Student describes that an instructor coming out would be detrimental if it made students feel uncomfortable, unwelcomed, or isolated in the classroom. Students may describe an uncomfortable classroom environment and a decreased sense of belonging.
Waste time	Student describes that an instructor coming out would be detrimental when it wasted class time, was off topic, not relevant to course content, too personal for the context, or just overall unnecessary.
Pushy or political	Student describes that an instructor coming out would be detrimental when it comes across as pushing a political viewpoint or being too pushy or "in your face."
Instructor discomfort	Student describes that an instructor coming out would be detrimental when it makes the instructor feel uncomfortable, not ready to come out, or fear backlash.

Negative representation	Student describes that an instructor coming out would be detrimental when there were unintended consequences and negative representation of the LGBTQ+ community. Student may also describe that poor teaching may lead students to negatively stereotype the entire LGBTQ+ community if the instructor came out.
Always	Student describes that an instructor coming out would always be detrimental.
Never	Student describes that an instructor coming out would never be detrimental or would be neutral.

Table S14. Study II: Regression results for whether an instructor coming out would be appropriate. Reference groups are control, men, non-religious, not LGBTQ+.

Predictor	Beta	SE	OR	*p*
Treatment (reveal)	0.325	0.176	1.383	0.065
Gender (woman/non-binary)	0.533	0.188	1.704	0.005
Religion (not Christian)	-0.870	0.265	0.419	0.001
Religion (Christian)	-0.657	0.200	0.519	0.001
LGBTQ+ (yes)	0.616	0.235	1.851	0.009

Table S15. Study II: Coding rubric for whether an instructor coming out would be appropriate or not appropriate.

Theme	Description
Appropriate	
Classroom inclusion	Student describes that an instructor coming out would be appropriate because it would make the classroom environment more welcoming and inclusive for all students.
Humanize instructor	Student describes that an instructor coming out would be appropriate because the instructor would be more approachable, accessible, relatable, and it would humanize the instructor.
LGBTQ+ identities are normalized	Student describes that an instructor coming out would be appropriate because LGBTQ+ identities are normal, natural, and appropriate to share. Student may also describe that straight instructors share similar information and LGBTQ+ identities are not different.
Instructor choice	Student describes that an instructor coming out would be appropriate because it is the instructor's decision to reveal their identity and they have the right to reveal their LGBTQ+ identity to students if they so choose.
Not inappropriate	Student describes that an instructor coming out would be appropriate because it is not inappropriate and there is no reason why revealing an LGBTQ+ identity would not be appropriate. Students may describe that LGBTQ+ identities are irrelevant to teaching or learning, or as neutral or that it does not matter.
LGBTQ+ role model	Student describes that an instructor coming out would be appropriate because it would increase LGBTQ+ visibility and representation for LGBTQ+ students. Student may also describe the instructor as being a role model or someone for LGBTQ+ students to look up to.
Relevant to students	Student describes that an instructor coming out would be appropriate because it is relevant to students as future scientists who need to gain understanding and the ability to interact with all kinds of people.
Instructor identity	Student describes that an instructor coming out would be appropriate because it is important identity or personal aspect about the instructor or is a part of who they are.
Not appropriate	
Irrelevant	Student describes that an instructor coming out would not be appropriate because it is irrelevant to the course and does not affect teaching or learning in the class.
Prejudice	Student describes that an instructor coming out would not be appropriate because of reasons rooted in prejudice, bias, or stigma against LGBTQ+ individuals or homophobia.
Unnecessary	Student describes that an instructor coming out would not be appropriate because it is unnecessary to do so since straight instructors do not disclose their non-LGBTQ+ identities.