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# Faculty perceptions of unidentified aerial phenomena

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Recently, former and current government officials, legislators, and faculty in the United States have called for research on what their government terms Unidentified Aerial Phenomena (UAP, now called Unidentified Anomalous Phenomena). Investigative journalism, military reports, new government offices, and scholarship have piqued broad attention. Other countries have begun conversations about UAP. The United States government is undertaking new hearings, reports, and investigations into UAP. What might the implications of this issue in academia be? Despite this topic's associated stigma, these developments merited asking faculty about their perceptions. In this national study—which is the first to thoroughly examine faculty evaluations, explanations, and experiences regarding UAP of which the authors are aware—tenured and tenure-track faculty across 14 disciplines at 144 major research universities ( $N = 1460$ ) participated in a survey. Results demonstrated that faculty think the academic evaluation of UAP information and more academic research on this topic are important. Curiosity outweighed scepticism or indifference. Overwhelmingly and regardless of discipline, faculty were aware of reports but not legislation. Faculty varied in personal explanations for UAP, and nearly one-fifth reported UAP observations. We discuss the implications of these results for the future of the academic study of UAP.

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## Introduction

In 2021 the Office of the Director of National Intelligence (2021) confirmed that Unidentified Aerial Phenomena, now called Unidentified Anomalous Phenomena (UAP)—the broader, clarified rebrands of UFOs—exist. After largely ruling out natural occurrences, airborne clutter, and technical glitches, their report indicated that UAP cannot be readily attributed to the United States military arsenal nor that of its allies or adversaries. Pentagon researchers thus assigned 143 of 144 incidents, primarily from two years of United States Navy reports, to a “catchall ‘other’ bin”. Congressional hearings in May 2022 pursued these concerns (C-SPAN Director, 2022). In addition to “sensor limitations”, one constraint is “disparagement associated with observing UAP, reporting it, or attempting to discuss it with colleagues”, a stigma limiting dialogue in the Pentagon and elsewhere in society (Office of the Director of National Intelligence, 2021, p. 4).

Among other factors, this report appears to have shifted the future of this topic. Recent directors of national intelligence services appointed by both major political parties have commented about the credibility of this topic, as have former President Barack Obama, the late former Senate Majority Leader Harry Reid (D), retired admirals, current legislators, and a few scholars (Cillizza, 2021; Cowen, 2021; Gallaudet and Loeb, 2021; Thebault, 2021; Washington National Cathedral Director, 2021; Whalen, 2019). Former Pentagon officials have added lengthier remarks on the nature of recent tax-funded, classified research, and the need for greater governmental transparency (Cooper et al., 2017). In December 2017, the *New York Times* published an article titled “Glowing Auras and ‘Black Money’: The Pentagon’s Mysterious U.F.O. Program” which covered the \$22 million spent on a programme to investigate reports of UAP. As reported in 2021 by CBS’ 60 Minutes and by the *Washington Post*, CNN, and other prominent journalistic outlets, officials and highly-trained active and retired military personnel who witnessed UAP visually and on sensors suggest that UAP technology significantly exceeds known human capabilities (60 Minutes, 2021; Cuomo, 2021; Washington Post Live Director, 2021).

With bipartisanship, legislators including Senators Gillibrand (D), Rubio (R), Warner (D), Heinrich (D), and Romney (R), and Representatives Carson (D), Schiff (D), Burchett (R), Gallagher (R), Krishnamoorthi (D), and Gallego (D) agree on the significance of UAP (Bender, 2019, 2021; C-SPAN Director, 2022; Parker, 2021; Sells, 2022). Some plainly state that UAP are not Russian or Chinese (Baktar, 2021; Boetel, 2021; Carson, 2021; Holpuch, 2021; Sells, 2022). In December 2021 President Biden signed the 2022 National Defense Authorization Act (NDAA), which included an amendment guided by Senators Gillibrand (D) and Rubio (R) to establish an “office, organizational structure, and authorities to address unidentified aerial phenomena” (National Defense Authorization Act for Fiscal Year 2022, 2021). This amendment gained broad, bipartisan support from legislators who received classified briefings on this topic (Gillibrand, 2021). With mounting interest, other agencies, including the National Aeronautics and Space Administration (NASA), have formed investigative teams to study events that “cannot be identified as aircraft or known natural phenomena” (Davenport, 2022). Thomas Zurbuchen, head of NASA’s science mission directorate, has stated that the “tools of scientific discovery are powerful and apply” (Davenport, 2022) to the study of UAP. These developments occur amid investments in space exploration (NASA, 2020), public and private-sector ambitions of space resource exploitation (Schwartz, 2020; The White House, 2021), and military space expansionism (Deudney, 2020), including the establishment of the United States Space Force (United States Space Force history, 2023). More recent developments, briefly

reviewed in a later section, make engagement on this topic even more relevant to ongoing public discourse.

Other countries have joined conversations about UAP. In 2021, Japan established guidelines for UAP reports from military personnel and announced UAP intelligence-sharing with the United States (Ryall, 2020). In May 2022, two Canadian Parliamentarians from Manitoba inquired about UAP policies regarding intelligence to their Standing Committee on Public Safety and National Security (SECU—*Subject Matter of Supplementary Estimates (C)*, 2021–22, 2021), and concerning nuclear safety to their Standing Committee on Natural Resources (RNNR—*Main Estimates 2022–23*, 2022; *RNNR—Supplementary Estimates (C)*, 2021–22, 2022). As of 2023, the Canadian government has a UAP study in progress (Otis, 2023). For years, a research group within the French centre for space studies has analysed unknown aerospace phenomena (Bockman, 2014). In January 2022, the Julius-Maximilians-Universität (JMU) Würzburg added UAP research to its Interdisciplinary Research Centre for Extraterrestrial Studies (Emmerich, 2022). In June 2022, the Senate of Brazil held hearings on UAP (Girão et al., 2022). China has tasked researchers who use artificial intelligence to analyse data regarding “unidentified air conditions” (Chen, 2021). Recently, the Republic of San Marino has considered cooperating with the United Nations to establish a neutral international office for UAP issues that would regularly host summits (RTV San Marino, 2023).

Simultaneously, scholars within academia have published on UAP topics or announced new projects. In 2021, scientists at Harvard University established the Galileo Project for the Systematic Scientific Search for Evidence of Extraterrestrial Technological Artifacts. Led by Avi Loeb, professor and former department chair of astronomy, the project now has millions in private donations and a lengthy list of researchers, advisers, and affiliates from universities and institutes around the world. Embracing the simple yet profound notion that “most of the sky above us is not classified” (Loeb, 2021b), the project’s purpose is to: “bring the search for extraterrestrial technological signatures of Extraterrestrial Technological Civilizations (ETCs) from accidental or anecdotal observations and legends into the mainstream of transparent, validated and systematic scientific research. This ground-based project searches for physical objects, rather than electromagnetic signals....” (Harvard University, 2021). Further, the research group proposes that ETCs are possible and that science “should not dogmatically reject potential extraterrestrial explanations because of social stigma or cultural preferences, factors which are not conducive to the scientific method of unbiased, empirical inquiry” (Harvard University, 2021).

At Stanford University, professor of pathology Dr. Garry Nolan published a peer-reviewed article in *Progress in Aerospace Sciences*. He and co-authors proposed methods for analysing material from aerial objects that are unidentified and of unknown origin (Nolan et al., 2022). Dr. Diana Walsh Pasulka published *American Cosmic: UFOs, Religion, Technology*, an academic book covering six years of ethnographic study. Pasulka, a UNC-Wilmington professor of religious studies, conducted confidential interviews with “successful and influential scientists, professionals, and Silicon Valley entrepreneurs who believe in extraterrestrial intelligence, thereby disproving the common misconception that only fringe members of society believe in UFOs” (2019). Dr. Kevin Knuth, professor of physics at SUNY Albany, published a peer-reviewed paper in the journal *Entropy* titled “Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles”. Along with Dr. Loeb, these three scholars are vocal about the importance of the multidisciplinary academic study of UAP in scholarly publications and in interviews.

University faculty hold responsibility for generating knowledge and evaluating truth claims (Király and Géring, 2019). During this indeterminate, liminal moment, when the future of this issue is uncertain, collecting insight from faculty across disciplines is a scholarly opportunity with broader public relevance. Although journalists and scholars across the world are confronting the decades-long stigma attached to this topic (Cooper et al., 2017; Coulthart, 2021a, 2021b; Lewis-Kraus, 2021; Loeb, 2021a; Schwartz (Reporter), Pilot Shares Videos of Strange UFO Sightings in Skies over the US, 2022; Tracy, 2021; Youn, 2021), it still often meets immediate downplay due to fear of reputational damage (Loeb, 2021c; Virk, 2021).

Colleagues (Knuth et al., 2019; Nolan et al., 2022; Shostak, 2021) and some government representatives have asked faculty to consider UAP (Kopparapu and Haqq-Misra, 2021). The late Senator Majority Leader Harry Reid (D) recently stated, “In my opinion, this is something we should be studying and as I said, this is a worldwide phenomenon. It’s not just here in the United States” (Knapp, 2019). Thus, this study evaluates perceptions among tenured and tenure-track faculty at 144 major research universities of recent UAP-related journalistic, governmental, and scholarly developments, opinions regarding academia’s involvement in UAP research, and experiences with UAP as defined by the United States government. In the context of these results, we discuss the future of this issue for academia.

## Methods

**Sample.** The study sample ( $N=1460$ ) included tenured and tenure-track faculty in 14 predetermined disciplines at 144 universities in the United States classified as “Doctoral Universities: Very High Research Activity” by the Carnegie Classification of Institutions of Higher Education (Carnegie Classifications, 2022). We excluded inactive faculty (i.e., Emeritus, retired), as well as Clinical Professors, Lecturers, and their equivalents at any rank because their primary assignment is teaching, not conducting research. We compiled a list of 144 universities and colleges with this classification as of December 2021 (excluding the investigators’ universities, both of which are in this Carnegie category). Using Excel’s RAND function, we randomly assigned the universities and colleges to the batches we used as part of the data collection process. We visited all university websites and collected publicly available data (i.e., faculty names, ranks, and email addresses) for 14 disciplines across the sciences, social sciences, humanities, and arts using Google Chrome’s Web Scraper. In cases where the scraper was incompatible with webpages, we manually collected information.

We consulted the most recent information on conferred baccalaureate degrees from the National Center for Education Statistics. Using this data, we selected nursing, sociology, anthropology, psychology, mechanical engineering, biology, journalism/communication, political science, and visual arts, many of the most popular undergraduate majors (National Center for Education Statistics, 2021). Business is also a common major. We thus included economics faculty, who are frequently housed in business schools.

Although not among the most common majors, we determined that it was preferable to include philosophy, physics, religious studies, and literature. All are longstanding disciplinary staples of academic research and university life. They represent varied avenues of intellectual enquiry and often appear in curricular requirements across institutions. This topic may not simply pertain to motion or matter, but to meaning. Questions of impact or discernment exceed simply making scientific measurements.

Although there are commonalities in disciplines across universities, there are also distinctions, which required several

decisions prior to data collection. Many departments of mechanical engineering included aerospace engineering, and many departments of physics included astronomy. Given the nature of the research topic at hand, we included both aerospace engineering and astronomy faculty in our list. When there was no department of journalism we selected communications faculty, regardless of name (e.g., media). We prioritised comparative literature faculty to gain a cross-cultural and broader geographical perspective. In cases where there was no distinct literature department or it was difficult to distinguish between literature and other faculty (e.g., languages), we selected English faculty.

We made all decisions about collecting emails based on the best information available on university web pages at the time. In cases where a university did not offer the predetermined majors, we did not include them for that university. In cases where fewer than 50% of faculty within a discipline did not have emails present on the faculty directory webpage, we made reasonable efforts to locate those emails through main university faculty directories, published articles, and curriculum vitae. If an entire faculty did not have emails, we skipped those disciplines. This was rare. The outlier was Georgetown University, which typically does not publicise its email addresses on its website. Only faculty, staff, and students have access to internal emails. Across eight disciplines, 69 faculty had no emails published.

Furthermore, in cases where a faculty member’s title was unclear, they were included on mailing lists, and those who responded “No” to the survey question, “*Are you currently a tenured or tenure-track faculty member at the rank of Assistant Professor, Associate Professor, or Professor...?*” were excluded and removed from the population (109 respondents). In cases where information stated that faculty were on leave during the Spring 2022 semester, we did not include them. During data collection, we received automated emails stating that people were on leave (we omitted them from reminder emails and removed them from the population) or would be slow to respond to emails (we retained them). Faculty were invited to click an unsubscribe link to automatically be removed from future emails; 24 faculty replied to the recruitment emails asking to be removed from the study contact list. We removed these faculty from reminder emails.

**Recruitment.** The University of Louisville Institutional Review Board approved this study (22.0103). Between February 24, 2022, and April 27, 2022, we sent initial email invitations on a rolling basis through Qualtrics. This allowed us to commence data collection while compiling email addresses and to capture any changes in responses associated with any relevant news or academic developments if they were to occur. Each faculty member was provided with an individual survey link generated by Qualtrics, which prevented duplication or sharing the link with others. Following best practices of survey recruitment (Dillman, 2007), we sent three reminder emails during three subsequent weeks. The survey portal remained open to all participants for 22 days. The survey closed to the final group of participants on May 19, 2022.

The final population of faculty totalled 39,984. Of the 40,322 initial recruitment emails, 174 bounced (rejected by recipients’ server), 10 failed to send (email did not leave the Qualtrics server because the email address was formatted incorrectly, though they did not have apparent formatting issues), 31 were blocked by the recipient’s server (all cases included psychology faculty at the University of Utah), we received 14 automated emails stating that faculty were on leave, and 109 faculty who began the survey were ineligible. Total responses included 1549.

The response rate was 3.9%. We suspect this rate could be based on several factors including (1) another chaotic semester due to the COVID-19 pandemic in which many faculty were still overwhelmed and may have had less time or energy to complete the survey; (2) faculty concerns that the recruitment emails were spam or “phishing emails”; and (3) the overall “taboo” nature of the study focus. For example, not only did one faculty member write to communicate that simply receiving the email was “insulting”, 14 faculty wrote seeking confirmation that the survey was not spam. One person sent a courtesy email to share that they feared our names were being used in a scam. Open-ended survey responses underscore the influence of stigma. In an open-ended response in which we invited participants to “Please write anything else you would like to say about this topic.”, some participants reported that they initially thought it was spam while others referenced the stigma directly and how conducting our survey might interfere with our tenure cases. To illustrate, we share four quotes here: (1) “*The stigma around the topic is so great that I thought your initial invitation to participate in the survey was spam!*”; (2) “*Interestingly, I overlooked taking your survey a few times when I saw it in my inbox bc it seemed potentially disreputable given the topic. But I am stuck on a train and figured why not. I’m so glad I did. Assuming the various articles and documents shown in the survey were not fabricated for experimental survey purposes, I am excited about investigating the research on this topic.*”; (3) “*Tenure might be tricky for you-good luck.*”; and (4) “*The censorship of this topic is ridiculous. The stigma surrounding the topic is negative and even more in academia.*” Based on feedback provided by faculty who took the time to communicate with us, we speculate that there are likely many more faculty who simply deleted the emails assuming the study was not real.

Recruitment emails included an inline email question that asked if recipients could spare 10–12 min to share their thoughts. If they selected “Yes” they were routed to the survey. The consent process involved unsigned informed consent (aka preamble). Recipients could also copy/paste their individually generated link into their browser. The consent document, which participants viewed before the first content item of the survey, included the purpose of the research, the voluntary nature of participation, the estimated time to complete the survey, the risks and benefits of participating, and contact information for the approving IRB and investigator. After viewing the consent documents, those who wished to continue to the survey items selected the option, “I wish to proceed to the survey items”, where answering survey items conveyed consent as explicitly stated in the consent document. Persons who selected the option, “I wish to exit without proceeding to the survey items”, were routed to the end of the survey.

We incentivized participation (Dillman, 2007) by providing an opportunity for participants to opt into a lottery for a chance to win 1 of 15 Amazon gift cards (five \$50 gift cards and 10 \$25 gift cards). We created a confidential lottery in Qualtrics, which generates a separate survey with email addresses that are not connected to the main survey responses. Most faculty in the analytic sample ( $n = 945$ ; 64.7%) opted into the lottery.

**Survey development.** We aimed to design a survey that took approximately 10 min to complete, as response rates and completion rates decrease with longer surveys (Dillman, 2007). Two faculty members at universities not included in the sample piloted the survey and provided feedback on both computer and mobile formats. After repeated testing during development, we estimated that the survey would take 10–12 min to complete. Both faculty

who piloted the survey and investigators stayed within this timeline.

The survey included 67 items: 12 demographic questions (e.g., birth year, gender, race, rank, discipline); three questions about news consumption (e.g., how often participants had heard news about UAP); 14 questions assessing awareness, curiosity; and reactions to UAP and publicly available information on UAP (e.g., curiosity about the UAP/UFO topic, three questions that presented participants with passages of recent news and government reports and legislation [see Fig. S1] with three follow-up questions, including awareness, engagement, and reactions to each development); 8 questions exploring participants’ explanations for UAP and perceptions of information sources (e.g., what best explains UAP, confidence in future federal government reports); 10 questions regarding awareness of current research (e.g., awareness of relevant peer-reviewed articles) and whether knowledge of scholarship influences participants’ thoughts about the UAP topic generally (e.g., increase in curiosity about the UAP topic) or UAP-related research (e.g., does knowing about scholarship presented increase the credibility of UAP-related research); 17 questions about UAP-related research and teaching (e.g., ever conducted academic research related to UAP, importance of academic involvement in evaluating future information about UAP); one question asking participants if they or anyone close them ever observed anything of unknown origin to them that might fit the United States government’s definition of UAP; one question asking participants to report how their interest in the UAP topic changed after taking the survey; and one open-ended question in which we asked participants to write anything else they wished to say about the topic. Respondents could skip any question they did not wish to answer.

For the journalistic component of the survey, we asked participants to evaluate the 2017 *New York Times* article because it received extensive attention, opened a more public dialogue about UAP, and other media outlets often refer to it in their own coverage. For the governmental component, we included the Pentagon report because it is published by well-trained and well-equipped personnel charged with United States national defence. We included the amendment to the NDAA because bipartisan legislators who received classified briefings wrote the subject of UAP into law and budget.

For the scholarly component, we selected four researchers who actively engaged in this topic at the time the study commenced. Dr. Garry Nolan is an accomplished scholar who speaks openly of collaborations with government-affiliated researchers studying UAP, including the intelligence community. His recent work, including on anomalous materials, has appeared in contextual discussions surrounding government reports. Dr. Avi Loeb is a visible and vocal scholar whose recent efforts have raised awareness and millions of dollars to establish The Galileo Project, which has appointed a range of well-known figures—including former government officials and scholars—as affiliates. Dr. Diana Pasulka’s book has earned a wide readership within academia and well beyond. Among other foci, she examines the practices and findings of an engineer with decades of work for NASA and other agencies, one among a cadre of scientists who have quietly studied UAP. Dr. Kevin Knuth, a physicist, publicly studies this topic with colleagues such as Dr. Matthew Szydagis and former military members involved in a UAP encounter detailed in the 2017 *New York Times* article. Further, these scholars welcome others to conduct research (Knuth et al., 2019; Nolan et al., 2022).

In addition to following best practices in survey research, the stigma inherently associated with this topic influenced many decisions. These included strict adherence to short completion time, thoughtful selection of content, and focused scope of questions. There exist numerous ways in which to approach this



topic, such as media's influence on public perception historically and currently, critiques of reports or scholarship, historical events and government reports, hypothetical explanations for UAP proposed by journalists, scholars, and others as well as how UAP have been or are currently included in academic discourse and scholarship.

Construed narrowly given its novelty, perhaps the topic pertains to no academic field. Rather, construed more copiously, it *could* pertain to all humans, a result that faculty respondents themselves yielded. Ultimately, we, the authors, were driven to conceive of this study by our own curiosity, absence of data, and minimal mention of recent reports, legislation, and scholarship on this subject in our own academic circles. We wanted to know faculty opinions. It is that simple.

**Data analysis and reporting.** We conducted all data management and analyses using SAS® 9.4. All results are presented as descriptive statistics using the PROC FREQ and PROC UNIVARIATE procedures. We retained respondents who completed at least 50% of the survey and removed respondents with <50% completed ( $n = 89$ ). We also removed two participants who did not take the survey in good faith; one included vulgarity and one shared in the open-ended response that they simply clicked through the survey because they were curious.

We asked participants “What is your discipline or field? (e.g., sociology, biology, literature)” and provided a text box for faculty to write their response. This resulted in a range of disciplines reported, including disciplines that were not targeted by the survey (e.g., law, statistics, dentistry). We grouped all reported disciplines into the 14 original disciplines and added an “Other” category ( $n = 143$ ) for those too far outside of these disciplines. The disciplines included in this 15th category appear in Table 1.

Participants also reported their current rank (assistant professor, associate professor, professor), current institution type (public/private), number of years employed full-time as a tenured or tenure-track faculty member at any institution, and the year they completed their doctorate. We asked respondents to report demographic information: birth year, gender (male, female, transgender male, transgender female, non-binary/non-conforming), race (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Some Other Race), and ethnicity (Hispanic/non-Hispanic).

To obtain a well-rounded understanding of sample characteristics, we asked participants to share the year, country, and, if in the United States, the state in which they earned their doctorate. Respondents earned their doctorates between the years 1963 and 2022 across 30 countries and 45 of 50 states as well as the District of Columbia.

**Qualitative data.** In reporting open-ended responses, considering the stigma associated with this topic, we took the protection of anonymity especially seriously. Throughout the study, all participants remained anonymous to investigators unless they volunteered identifying information. To generate themes from qualitative data we employed the constant comparative method. We compared sentences and phrases to determine their conceptual similarity and distinctness (Fram, 2013).

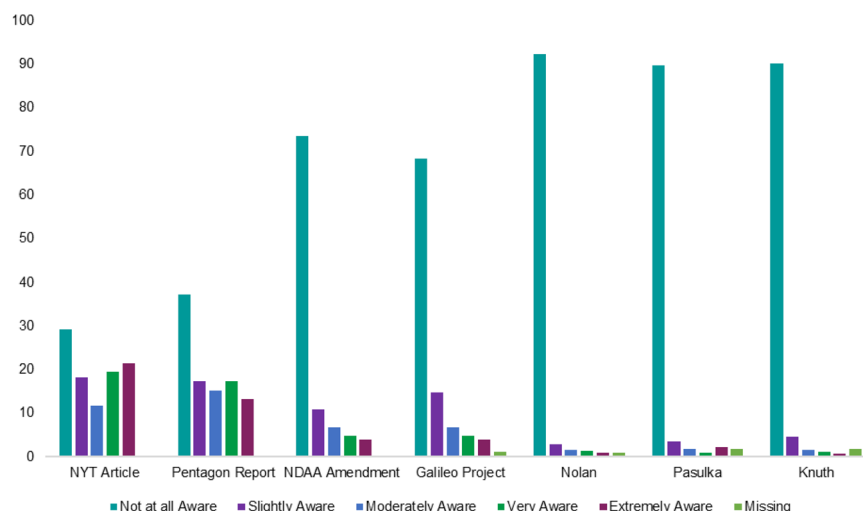
## Results

**Awareness of recent developments.** The United States Government defines UAP as “Airborne objects not immediately identifiable. The acronym UAP represents the broadest category of airborne objects reviewed for analysis. The former term for UAP

**Table 1 Sample characteristics of survey participants (N = 1460).**

Variable	n	%
<i>Discipline</i>		
Anthropology	62	4.25
Art and Design	66	4.52
Biology	89	6.1
Communication/Journalism	85	5.82
Economics	67	4.59
Engineering	89	6.1
Literature/English	112	7.67
Nursing	45	3.08
Philosophy	71	4.86
Physics	144	9.86
Political Science	151	10.34
Psychology	134	9.18
Religious Studies	29	1.99
Sociology	121	8.29
Other	143	9.79
Missing	52	3.56
<i>Rank</i>		
Assistant Professor	345	23.63
Associate Professor	446	30.55
Professor	636	43.56
Missing	33	2.26
<i>Institution type</i>		
Public	1151	78.84
Private	277	18.97
Missing	32	2.19
<i>Generation</i>		
Millennials	490	33.56
Generation X	446	30.55
Baby Boomers	422	28.9
Traditional	43	2.95
Missing	59	4.04
<i>Gender</i>		
Male	901	61.85
Female	487	33.63
Transgender	1	0.00
Male—Non-binary/Nonconforming	2	0.00
Female—Non-binary/Nonconforming	4	0.00
Non-binary/Nonconforming	16	1.58
Missing	49	3.36
<i>Race</i>		
American Indian and Alaska Native	5	0.34
Black or African American	35	2.40
Asian	1	0.07
Native Hawaiian or other Pacific Islander	94	6.44
Some Other Race	67	4.59
Multiple Race	38	2.60
White	1161	79.52
Missing	59	4.04
<i>Ethnicity: Hispanic or Latino</i>		
Yes	1317	94.00
No	84	6.00
Missing	59	4.04
<i>Year earned PhD or terminal degree</i>		
1960–1969	15	1.10
1970–1979	65	4.4
1980–1989	190	13.01
1990–1999	287	19.65
2000–2009	372	25.47
2010–2019	405	27.73
2020–2022	34	2.32
Missing	92	6.3

Based on results from chi-square goodness of fit tests, more faculty were male (61.85%), at the rank of professor (43.56%), and white (79.52%) than national estimates: male (52%), professor (35.5%), and white (69.76%) (U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, 2020). Disciplines of the 143 faculty in the “Other” discipline category included: aeronautics and engineering, anthropological archaeology, applied science, archaeology, architecture, astronomy, astronomy and astrophysics, astronomy and cosmology, bioinformatics, biostatistics, business, chemistry and chemical engineering, cinema/fine arts, classical studies, classics, cognitive neuroscience, cognitive science, computer music, computer science, computer science and psychology, computer science, biology, mathematics, conservation ecology, creative technologies, criminal justice, criminology, cultural studies, literature, demography, dentistry, ecology, entomology, environmental history, epidemiology, evolutionary ecology and indigenous studies, film and media studies, film/creative writing, finance, first amendment law, genetics, geography, geology, gerontology, health sciences, healthcare, history, history & africana studies, humanities, information policy, information science, international political economy, international relations, law, management and sociology, marketing, media, media studies, media studies/documentary production, mediterranean archaeology, military science, molecular genetics, music, music and digital media, neuroscience, neuroscience, evolution, and genomics, palaeontology, evolutionary biology, planetary science, policy analysis/law, public administration, public health, public health and public policy, public policy, public relations (risk and crisis management), science, statistics, theatre and literature, wildlife ecology and conservation.



**Fig. 1 Awareness of journalistic, governmental, and scholarly developments.** Response to the question, “Before today, how aware were you of (development)?” Note. Governmental and journalistic survey items are in Fig. S1. Scholarly survey items appear in Fig. S2.

was Unidentified Flying Object or UFOs” (Office of the Director of National Intelligence, 2021). We presented participants with this definition and asked three questions: “How curious are you about the UAP/UFO topic?” (Not Curious [17.19%], Slightly Curious [25.41%], Moderately Curious [25.34%], Very Curious [16.78%], Extremely Curious [15.27%]), “In the past several years how often have you heard news about the UAP topic?” (Never [6.3%], Rarely [30.27%], Occasionally [48.7%], Frequently [9.86%], Very Frequently [4.59%]), and “In the past several years, how often have you sought news about the UAP topic?” (Never [42.88%], Rarely [31.78%], Occasionally [19.32%], Frequently [3.56%], Very Frequently [2.19%]). The overwhelming majority reported curiosity. Most had encountered journalism on UAP, even if many did not seek news on the subject.

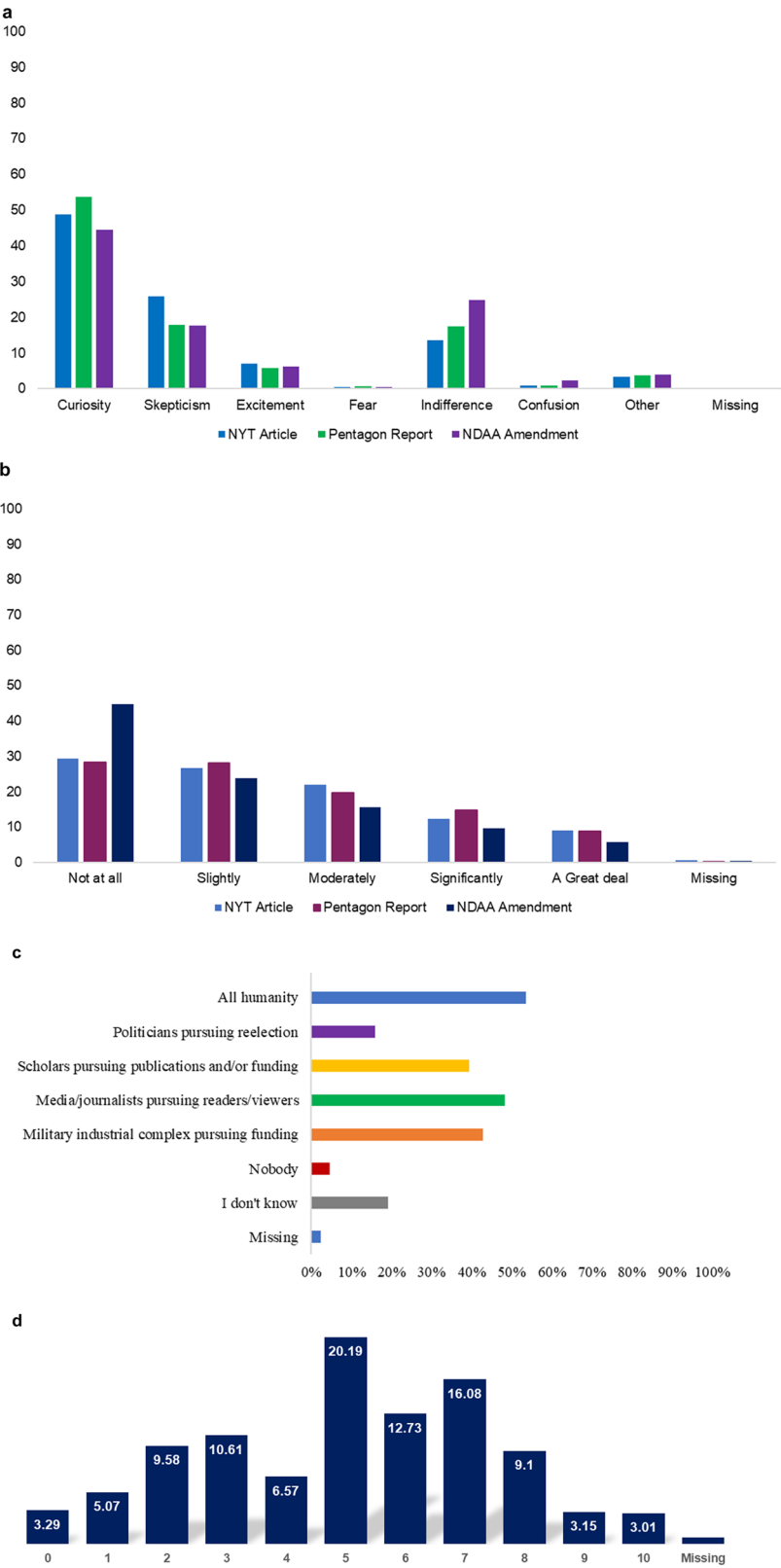
To assess awareness about prominent journalistic and governmental developments we then asked participants to respond to seven questions that included details and images of the 2017 *New York Times* article (Cooper et al., 2017), the June 25, 2021 UAP report published by the Office of the Director of National Intelligence (2021; colloquially the Pentagon report), and the “Gillibrand Amendment” to the National Defense Authorization Act of 2022 (National Defense Authorization Act for Fiscal Year 2022, 2021), as well as scholarship from academic peers Dr. Garry Nolan of Stanford University (Nolan et al., 2022), Dr. Avi Loeb of Harvard University (Harvard University, 2021), Dr. Diana Pasulka of the University of North Carolina—Wilmington (Pasulka, 2019), and Dr. Kevin Knuth of SUNY Albany (Knuth et al., 2019; see Figs. S1 and S2 for survey items).

Participants ranked their awareness of these recent and ongoing developments using a Likert Scale (Not at All Aware to Extremely Aware). Descriptive statistics demonstrate that although a majority were aware of the *New York Times* article and Pentagon report, fewer were aware of the latter and 73.56% were unaware of the NDAA Amendment (Fig. 1). A larger minority were aware of Harvard’s Galileo Project than the work of Nolan, Pasulka, and Knuth. Although only a small percentage had read a part or all of the scholarship presented (Nolan [1.99%], Pasulka [2.53%], Knuth [2.12%]), a majority had read a part or all of the *New York Times* article (58.84%), and approximately one-third had read a part or all of the Pentagon report (30.14%).

**Reactions to recent developments.** We asked participants four questions related to the three journalistic and governmental developments (Fig. 2; In Supplementary Materials, we provide

results in these and subsequent figures stratified by academic discipline): “What best describes your reaction to this article/report/amendment?” (Fig. 2a), “For you, how much does this (article/report/amendment) increase the credibility of the UAP topic?” (Fig. 2b), “In your view, who stands to gain from the release of UAP-related information? Please select all that apply.” (Fig. 2c), “On a scale of 1 to 10, with 1 being not confident at all and 10 being extremely confident, how confident should academic scholars be in reports offered about UAP from the federal government?” (Fig. 2d). Options for participant reactions included “Curiosity, Skepticism, Excitement, Fear, Indifference, Confusion, or Other.” We asked participants who selected Other to write their reaction to the *New York Times* article ( $n = 48$ ), Pentagon report ( $n = 53$ ), and NDAA Amendment ( $n = 54$ ) in a text box. We generated six themes from these responses (see Table 2): Negative Reaction (e.g., anger, annoyance, contempt, disappointment, waste of time/money), Positive Reaction (e.g., “Satisfaction that there will be systemic review of possible hazards to air flight”, “it’s about time”, “relief”, “vindication”), Interpretation/Information/Enquiry (e.g., “I specifically research ‘deep politics’ as part of my agenda. I view this in that context”, “The observations are real, my interest is about why the government is releasing it now”, “interesting, but not conclusive. the de facto classification says nothing about the actual sources or causes”, “How much money will this cost the taxpayers? To whom does this committee answer?”), Mixed Reaction (e.g., “mixture of curiosity and questioning whether the information shared in the report is trustworthy”), No Reaction (e.g., “didn’t read it”, “nothing”), and Other Reaction (e.g., “amusement”, “amazement”, “caution”, “interest”, “surprise”, “weirded out”).

A majority of faculty reported that the three journalistic and governmental developments increased the credibility of the UAP topic (Fig. 2b), with far fewer faculty reporting that the NDAA Amendment increased credibility. To examine faculty perceptions on the collective credibility of recent developments in journalism, government, and scholarship, we also asked participants to what extent they were sceptical of the sources and analysis of the 2017 *New York Times* article, the Pentagon report, and work by Nolan, Pasulka, and Knuth (Dr. Loeb and the Galileo Project had not yet produced scholarship). Although 15.17% of faculty reported that they were not at all sceptical, the overwhelming majority reported some level of scepticism (Slightly [35.21%], Moderately [30.68%], Very [10.34%], Extremely [6.37%]).



**Fig. 2** Reactions to journalistic and governmental developments. **a** Response to question, “What best describes your reaction to this article/report/ amendment?” **b** Response to question, “For you, how much does this (article/report/amendment) increase the credibility of the UAP topic?” **c** Response to question, “In your view, who stands to gain from the release of UAP-related information? Please select all that apply.” **d** Response to question, “On a scale of 1-10, with 1 being not confident at all and 10 being extremely confident, how confident should academic scholars be in reports offered about UAP from the federal government?”.

**Table 2 Themes of Open-ended “Other” Reactions to the New York Times Article, Pentagon Report, and “Gillibrand Amendment” to the National Defense Authorization Act.**

Theme	NYT (n = 48)	Pentagon (n = 53)	NDA (n = 54)
Negative reaction	15	17	25
Positive reaction	3	5	8
Mixed reaction	2	3	0
Interpretation/ Information/inquiry	11	17	4
No reaction	3	3	2
Other reaction	14	8	15

“Other” responses to the three questions asking, “What best describes your reaction to (New York Times article, Pentagon report, “Gillibrand Amendment” to the National Defense Authorization Act)?”

All humanity (53.63%) and media/journalists pursuing readers/viewers (48.56%) were the most frequently selected options for who stands to gain from the release of UAP-related information (Fig. 2c). Most faculty (55.34%) ranked confidence in future federal government reports as 5 or less (Fig. 2d). Among those faculty who did not select “All humanity” (46.36% [ $n = 677$ ]), the greatest number selected “Media/journalists pursuing readers/viewers” ( $n = 286$  [42.25%]), followed by “I don’t know” (37.52% [ $n = 254$ ]), “Military-industrial complex pursuing funding” (36.78% [ $n = 249$ ]), “Scholars pursuing publications and/or funding” (27.92% [ $n = 189$ ]), and “Politicians pursuing re-election” (13.74% [ $n = 92$ ]). Together with the low confidence in future federal government reports, the high number of selections for media and military motives indicate significant scepticism or mixed perceptions that may align with low trust in government and media across the United States (Gallup, Inc, 2021b; Pew Research Center, 2022). In part, this is due to spiralling synergies in the recent history of imperfect assessments from the intelligence community, political prerogatives, defence disbursements, and media mistakes that led to unfortunate outcomes (Kessler, 2019).

**Observations of and explanations for UAP.** The authors are unaware of a scholarly source that estimates the proportion of people who witness or report UAP in the United States or internationally. More specifically, the authors are unaware of any thorough scholarly investigations about faculty thoughts on explanations for UAP. A 2021 Gallup poll documented that 50% of American adults believe that all UAP can be explained by human activity or a natural phenomenon (down 10% since 2019), 41% believe that at least some UAP can be explained by alien spacecraft (up 8% since 2019), and 9% have no opinion (up 2% since 2019; Inc, 2021). To study this new area, we asked participants three questions (Fig. 3), namely: “Have you or anyone close to you ever observed anything of unknown origin to you that might fit the U.S. government’s definition of UAP?” (Fig. 3a); “For you, what best explains UAP?” (Fig. 3b); “Which of the following offers, or would offer, the most compelling evidence that UAP represents an unknown intelligence? Please rank your response by dragging and dropping the options” (Fig. 3c).

In this sample, 18.9% ( $n = 276$ ) reported that they or someone they know have witnessed a UAP as defined by the United States government, and 8.77% ( $n = 128$ ) reported that they or someone they know may have (Fig. 3a). We never asked faculty who responded “yes” or “maybe” to this question to share details. However, at the end of the survey, we invited participants to “Please write anything else you would like to say about this topic.” Of the faculty who provided open-ended responses, 12 voluntarily shared

details of UAP observations. One participant emailed to share their observation, about which they no longer speak due to stigma/other negative responses. The 12 quotes are provided in Table 3. To protect confidentiality, we redacted locations of observations and only broad discipline categories appear (e.g., social science).

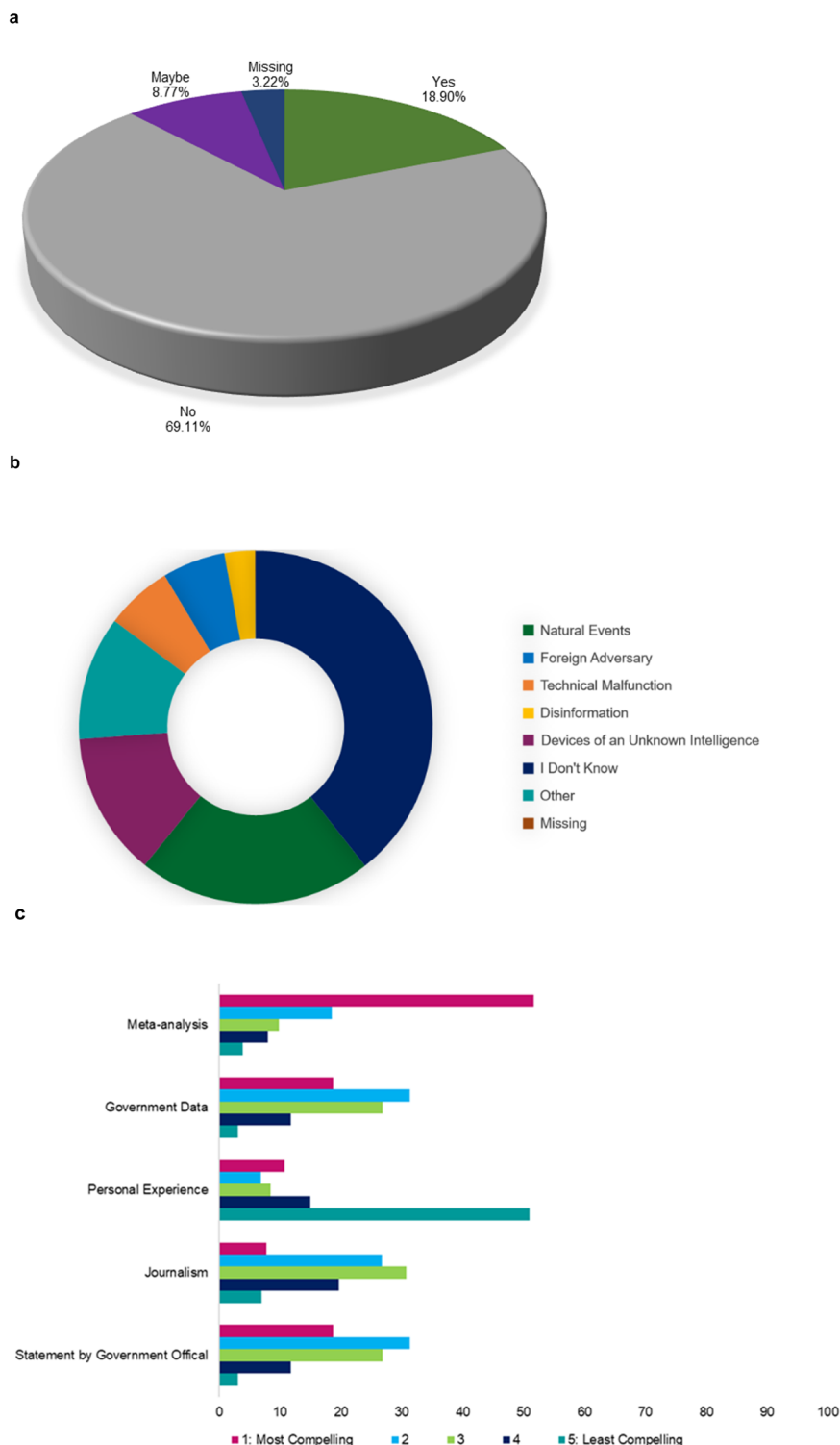
When asked to select the best explanation for UAP (Fig. 3b), faculty most frequently selected “I Don’t Know” (39.38%), Natural Events (21.42%), and Devices of Unknown Intelligence (13.14%). Among those who selected “Other” ( $n = 165$ ), all but one wrote their response in the text box provided. Among those, 10 replied “All”, and many suggested a combination of explanations: 45 wrote “combination”, 31 wrote “combination” with the explicit exclusion of an unknown intelligence ( $n = 29$ ) or extraterrestrial intelligence ( $n = 2$ ), six replied “combination” and conveyed openness to unknown intelligence, two wrote “combination” and specifically included unknown intelligence. Other responses included human error, technical limitations, foreign and/or domestic military or secret United States technology, “interdimensional travel”, perception, myth, “cultural predilection”, “extra-dimensional phenomena with paranormal manifestations”, “known intelligence of a metaphysical nature”, optical phenomena, “limits of human knowledge”, weather balloons, “cognitive constraints from an evolutionarily evolved human brain that is dealing with stimuli outside of experience”, mental illness, drug use, “unknown terrestrial beings”, and “time”.

Some prominent officials, legislators, scholars, journalists, and highly trained military pilots have cast doubt that UAP reported by the Pentagon are United States military technology (secret or otherwise), are foreign allies or adversaries, or have other conventional explanations. Some have publicly opened the options beyond that. A former undersecretary of defense for intelligence openly suggested that perhaps “somebody found us before we found them” (Cuomo, 2021). Current NASA Administrator Bill Nelson publicly admitted his openness to otherworldly explanations (University of Virginia Center for Politics Director, 2021). Avril Haines, current Director of National Intelligence, stated in a public forum titled “Our Future in Space” at the National Cathedral that “Always, there’s also the question of, ‘Is there something else that we simply do not understand, which might come extraterrestrially?’” (Washington National Cathedral Director, 2021). With regard to these developments, former CIA Director John Brennan circuitously stated that,

Life is defined in many different ways. I think it’s a bit presumptuous and arrogant for us to believe that there’s no other form of life anywhere in the entire universe. What that might be is subject to a lot of different views. I think some of the phenomena we’re going to be seeing continues to be unexplained and might, in fact, be some type of phenomenon that is the result of something that we don’t yet understand and that could involve some type of activity that some might say constitutes a different form of life (Cowan, 2021).

Given these intriguing statements by these influential professionals specifically in the United States government, and considering that culturally, an unknown intelligence would likely be the most profound explanation, we found it relevant to present faculty with a list of potential sources of information and ask them to rank the sources that they think could offer the most compelling evidence that UAP represents an unknown intelligence (Fig. 3c). Options included: (1) meta-analysis of peer-reviewed studies that strongly support this explanation; (2) one inexplicable personal experience (i.e., seeing a UAP that you reason cannot possibly have a conventional explanation); (3) journalism from sources you consider reputable; (4) government-released data, reports, or videos/images; (5) statements issued by





**Fig. 3 Observations of UAP and explanations for UAP.** **a** Response to question, “Have you or anyone close to you ever observed anything of unknown origin to you that might fit the U.S. government’s definition of UAP?” **b** Response to question, “For you, what best explains UAP?” **c** Response to question, “Which of the following offers, or would offer, the most compelling evidence that UAP represents an unknown intelligence? Please rank your response by dragging and dropping the options”.

prominent government officials you trust. Most (51.68%) ranked meta-analysis first while the fewest (7.73%) ranked journalism first (see Fig. 3c).

**Academic involvement.** To examine faculty thoughts on academic involvement in the UAP topic, we asked four questions

(Fig. 4): “How interested are you in conducting or continuing to conduct academic UAP-related research?” (Fig. 4a), “Why are you not at all interested? Please select all that apply.” (Fig. 4b; Faculty who reported that they were “Not at All Interested” in conducting UAP-related research ( $n = 908$ ) selected responses from among the seven options that appear in this figure), “How important is it

Table 3 Unidentified aerial phenomena (UAP) observation details voluntarily shared by faculty.	
Broad discipline	Experience
Social Science	I saw an unidentified flying object as a child in (state redacted) (with my sibling)—which my parents didn't believe. The news reported that others saw it, too.
Science	I personally know three physicists who independently report seeing UFOs. They have no explanation for the phenomenon they observed, other than they observed it.
Communication	I saw two UFOs once near (redacted) Air Force Base in (state redacted).
Art and Design	I have seen ufo[s] twice. I know they exist and we don't have that level of technology. I used to tell people but they thought I was crazy or lying—so now I'm silent.
Social Science	Several years ago in (state redacted) saw an unusual object moving in curved and rectilinear way in the sky. I told my family. The next day I read in the paper that there were UFO recorded in (city redacted) at the same time I saw this strange object moving in the sky.
Communication	When I was in graduate school, circa (year redacted), I saw a large, round UAP with rectangular lit windows on the bottom hovering above the ground in the (mountain range redacted) east of (city redacted). I made my husband pull the car over so I could get out and take a closer look. It was quite dark, and the lights on the craft had attracted my attention. Since (state redacted) is pretty far from Area 51, I have never known what to make of this sighting.
Social Science	My mother has experiences with UFOs including a recent sighting. I get most of my information about the topic from her and she's a very educated woman who I trust.
Communication	My entire family and I witnessed a UFO around 1976. It was over our house in the rural northeast (state redacted). Two of my siblings saw it, while the rest of us in the house felt it shake and heard a loud noise. We were eating dinner and the shaking was so intense that we all ran outside. It ended [SIC] abruptly. We recently spoke of the incident and remember it well. My siblings still describe the object they saw and how fast it moved away from the house. We are all still living, and I've always wanted to tell someone about this story.
Art and Design	My father and his old Cold Warrior colleagues know plenty about UAPs, but they won't say much.
Social Science	... multiple friends and relatives, including one who was a career military pilot, have reported anomalous sightings to me. In the end, I concluded that something is definitely out there and I just hope the mystery is solved to everyone's satisfaction during my lifetime.
Social Science	"My dad was in the air force, he talked about seeing unexplained phenomena"
Social Science	For me, the Marfa lights.
Responses to the question, "Please write anything else you would like to say about this topic." To protect confidentiality, we redacted locations of observations and used broad discipline categories.	

that academia is involved in evaluating new UAP-related information as it becomes public?" (Fig. 4c), and "...how important do you think it is that there is more academic research about UAP?" (Fig. 4c).

Though very few faculty reported that they had conducted research related to UAP (3.84%), when asked how interested they were in beginning or continuing to conduct research on the subject, more than one-third ( $n = 524$ ) reported some degree of interest (Slightly [19.45%], Moderately [10.21%], Very [4.32%], Extremely [3.15%] (Fig. 4a includes results by discipline). Faculty who reported that they were uninterested (Fig. 4b) most frequently selected "No clear connection to my research area" (42.67%). Many faculty responded that they would be more inclined if another scholar in their discipline who they considered to be reputable did so (43.4%), and more than half (54.86%) reported that they would be more inclined if they could secure funding (Not at All [42.09%], Slightly [19.85%], Somewhat [13.14%], Moderately [8.9%], A Great Deal [13%]). This inclination decreased slightly if funding originated from the government (Not at All [47.78%], Slightly [20.74%], Somewhat [11.7%], Moderately [8.83%], A Great Deal [8.01%]).

Interest in conducting UAP-related research is noteworthy. This leads to further considerations of how important the topic is to academia generally, whether academia should evaluate new information, and what influences faculty choices to conduct such research. When we asked faculty to rank the importance of academia's involvement, nearly two-thirds (64.17%) were split between Very Important and Absolutely Essential (Fig. 4c). When faculty ranked the importance of more academic research about UAP, more than one-third (37.26%) reported that it is Very Important or Absolutely Essential (Fig. 4c).

Finally, we asked faculty to rank their change of interest in the UAP topic after completing the survey (Fig. 5). Approximately half reported a slight, moderate, or significant increase in interest. Approximately just under half reported no change. A small minority reported a decrease in interest. Among those who

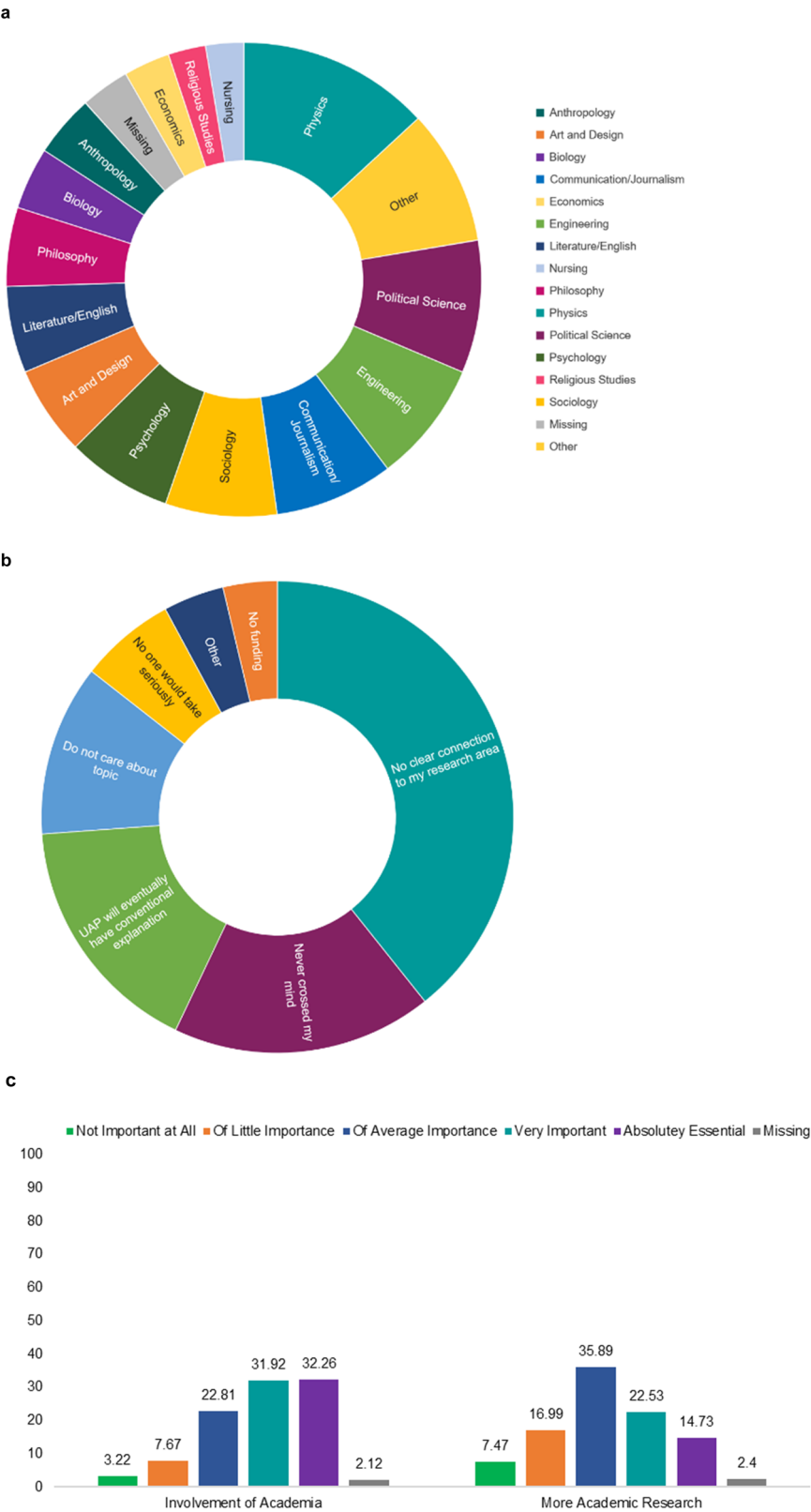
reported at the beginning of the survey that they were not at all curious about the topic ( $n = 251$ ), 15% ( $n = 38$ ) reported a slight or moderate increase in interest. Among those who reported interest in the topic initially ( $n = 1209$ ), 52.9% ( $n = 639$ ) reported a slight, moderate, or significant increase in interest.

Discussion

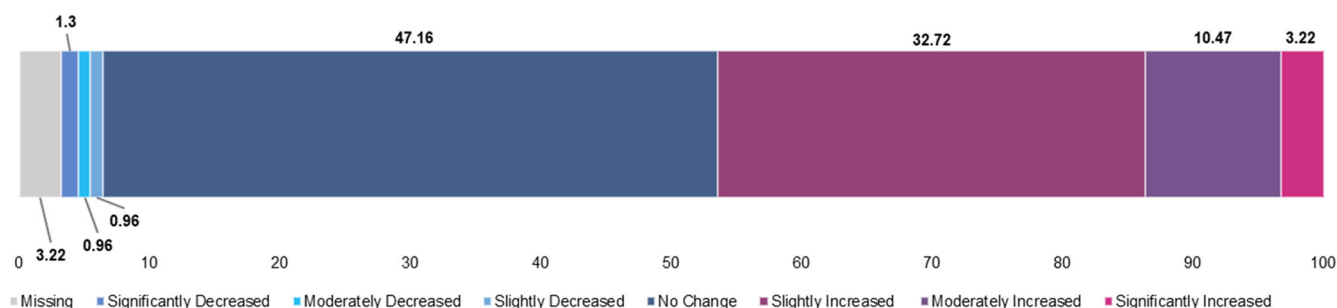
This study is the first of its kind to offer insight into faculty awareness, perceptions, and experiences of UAP. As faculty themselves conveyed, recent developments might be involved in perception management or propaganda, a ploy for increased military or space funding, testing of secret technology, unfamiliar atmospheric events, a cascade of credulity, or a slow rollout of data points that point beyond consensus anthropocentric bounds to date. Potentially, a blend of factors is possible, which complicates evaluation.

Regardless of the eventual explanations for UAP, most faculty think that academia should be involved in evaluating new information as it becomes public and most think that more academic research of UAP is important. It is quite possible that explanations for UAP are not mutually exclusive. Eliminating or explaining any one of them is critical. Neither participants nor the authors know the sum of these factors. However, as faculty suggest, they amount to something worthy of academic scrutiny. Meaning for science might pique this necessary conversation. Meaning for society could be what sustains it. Indeed, when asked who gains from the release of UAP-related information, faculty most frequently selected "All humanity".

Silence now due to a stale spectre of stigma may prove imprudent. Academia offers expertise across fields to assess pieces of what this fraught whole could mean. Further, a limited disciplinary approach might reveal discrete datasets while it conceals a plethora of factors and implications. Our data suggest that scholars across disciplines are cautiously willing to engage the subject, particularly if others they find reputable lead the way.



**Fig. 4 Academic involvement in the UAP topic. a** Response to question, “How interested are you in conducting or continuing to conduct academic UAP-related research?” **b** Response to question, “Why are you not at all interested? Please select all that apply.” Faculty who reported that they were “Not at All Interested” in conducting UAP-related research ( $n = 908$ ) selected responses from among the seven options that appear in this figure. **c** Response to questions, “How important is it that academia is involved in evaluating new UAP-related information as it becomes public?” and “...how important do you think it is that there is more academic research about UAP?”.



**Fig. 5 Change in interest in the UAP topic.** Response to the question, “Now that you have taken this survey, how has your interest in the UAP topic changed?”.

Perhaps a shifting paradigm is upon us, if only in openly questioning whatever UAP are (Kuhn, 1962). Few respondents wondered if certain phrases in the survey could be refined. This points to a more profound matter, which is that there is no consensus academic vocabulary to discuss UAP, in part because academics have self-censored or been disincentivised from considering UAP.

**Limitations and opportunities.** This survey was an exploratory study on a topic that to our knowledge has never been investigated. The purpose was to take the pulse of faculty on a subject that continues to grow in mainstream society (i.e., discussions of UAP are taken seriously by current and former United States government officials and legislators, journalists, and scholars). Considering the study’s exploratory nature and the stigma associated with the topic, as well as our perception that simply asking questions would be risky (a perception supported by open-ended responses within the survey and emails faculty sent to investigators), we intentionally kept the survey questions focused on recent and ongoing developments. Thus, the results are preliminary. Furthermore, we used the federal government’s definition of UAP. Though broad, until a more precise consensus vocabulary emerges, it is the most official.

The results of this study can inform future data collection. For instance, the gender distribution of the sample is not nationally representative of faculty and is an area for improvement. In part, this might be because males are more likely to engage in the topic openly (Denzler, 2003). Though recent polling shows a minimal statistical difference between men and women in extraordinary attribution to UAP causes (Gallup, Inc, 2021a). Should more journalistic and academic investigation occur, perhaps the topic would be normalised, which could balance representation and increase participation. Also, when we asked respondents to provide the best explanation for UAP, we anticipated that they would prioritise. Rather, many participants elected to offer more detail. Future work in this area would benefit from greater nuance because, in the “Other” open-ended text response, some faculty mentioned two or more explanations while others thought that all explanations were possibly contributive.

We recognised that at any time during data collection, a major development related to UAP could occur. This happened nine days before the survey closed when a *New York Times* article broke that there would be a Congressional hearing on UAP (Kean and Blumenthal, 2022). The hearing took place one day before 5589 faculty received their final reminder to participate and two days before the survey closed. In total, 71 participants took the survey after the announcement of hearings and 28 took the survey after the hearings.

Although web-based surveys have rendered data collection simpler and more affordable, response rates tend to be lower than mailed surveys (Sammur et al., 2021). Study results should be read

with recognition of the relatively low response rate. Most faculty reported some degree of curiosity about the UAP/UFO topic, perhaps suggesting they were more open to participating and less inclined to think the survey was spam, thus introducing bias. That said, only ~6% of faculty shared that they frequently or very frequently seek news on this subject, suggesting that if curiosity did play a role, it is likely minor. Additionally, the sample size of this study is a strength. Recent surveys among faculty at institutions of higher education have included sample sizes in the United States that ranged between 113 and 329 (Sabagh et al., 2018), which are much lower than the sample size of the current study. Moreover, although beyond the scope of this paper and to be explored in a follow-up study, in the context of response rates, it is important to note that based on participants’ open-ended responses and emails, this topic inspired a vast range of emotional reactions, from anger and irritation to surprise, delight, and enthusiasm.

It is reasonable to expect that on this subject participation by university faculty will improve with more scholarship and media attention. Both have occurred. Recently, scholars across disciplines have taken anomalies more seriously, from cooperation within academia to conferences and written collaboration with public partners (Agrama, 2021; Graves, 2023; Kingsbury, 2019; Kripal, 2011; Limina, 2023; Masters, 2021; Wendt and Duvall, 2008). During the weekend of February 10, 2023, the North American Aerospace Defense Command (NORAD) made international headlines when it shot down three UAP: one over the Alaskan coast on Friday, one over central Yukon on Saturday, and one over Lake Huron on Sunday. For the first time in its 65 years, one week after the U.S. Air Force shot down a Chinese spy balloon off the South Carolina coast, NORAD took “kinetic action against an airborne object” (U.S. Department of Defense, 2023). Legislators emerged from a classified briefing confused and demanding answers. Eventually, President Biden announced a new task force and addressed the nation (Roche, 2023; Rogan, 2023).

Sixteen senators then requested additional funding and support for the new All-domain Anomaly Resolution Office (AARO) tasked with the UAP study (Gillibrand and Rubio, 2023). Tim Gallaudet, a retired Navy rear admiral and former deputy administrator of the National Oceanic and Atmospheric Administration said that while “clutter” and “aerial drones” had increased recently, some UAP off the U.S. coasts exhibited capabilities that “are not of human origin” (Zak, 2023). And, amid criticisms about the credibility of recent collaboration by the director of AARO with Loeb, Senator Gillibrand supported the director’s merits all the while preparing to chair a hearing about AARO’s progress on 19 April 2023 in the Senate Subcommittee on Emerging Threats and Capabilities (von Rennenkampff, 2023; Seligman, 2023). What happens next, how these events relate to



previous developments, and how scholars react, all remain to be seen.

## Conclusion

The future of the UAP topic remains unclear. Faculty reported average confidence in information released by the federal government. Without opening a discussion about UAP, academia will not have the vocabulary necessary to contribute to the conversation. Without a vocabulary, academia might relinquish a much-needed voice on a topic already complicated by classification, stigma, and perception management.

This exploratory study answers a few questions while raising many more. If scholars think academia should be involved in evaluating information about UAP, how can this transpire? Would faculty confidence in government reports increase if faculty had the sources and resources to independently examine data? How might scholars extract possible facts from possible fiction? Do compelling reasons remain to dismiss the topic outright? What does it mean that in response to an anonymous survey, faculty voluntarily shared detailed and personal UAP experiences, some mentioning that stigma stopped them from sharing these with others? Whatever the aetiology, what is the cost of self-censorship? To whom do scholars cede the topic by not engaging? What should the future of this topic in academia be? Is the recent surge of this topic itself anomalous, or is its presence a new norm? By offering these results on faculty perceptions regarding this fraught subject, we ask our capable peers across a range of disciplines equipped with unique methods and insights to consider not only answers to these inquiries but to form even better questions about what is occurring.

## Data availability

The data that support the findings of this study are available on request from the corresponding author (MEY). The data are not publicly available due to them containing information that could compromise research participant privacy/consent.

## Code availability

The code that supports the findings of this study is available on request from the corresponding author (MEY).

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## Author contributions

MEY and CWY conceived of the research; MEY and CWY designed the survey; BAB informed survey design and methods; MEY conducted the survey; MEY analysed the survey results and BAB informed analyses; MEY and CWY drafted the main text, with input from BAB. All authors approved the final manuscript.

### Competing interests

The authors declare no competing interests.

### Ethical approval

Approval was obtained from the University of Louisville Institutional Review Board. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

### Informed consent

The consent process involved unsigned informed consent (aka preamble) given the minimal risk to participants and that research met specific criteria outlined in the regulations.

### Additional information

**Supplementary information** The online version contains supplementary material available at <https://doi.org/10.1057/s41599-023-01746-3>.

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