

Annual Report on the Committee on the Status of Women in Astronomy (CSWA) 2019-2020

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The members of the 2019-2020 CSWA were:

Jeremy Bailin (University of Alabama)
Joan Centrella (West Virginia University)
Katie Eckert (in her personal capacity)
Heather Flewelling (in her personal capacity)
Regina Jorgensen (Maria Mitchell Observatory)
Stella Kafka (American Association of Variable Star Observers)
James Tuttle Keane (CalTech)
Patricia Knezek (in her personal capacity), Co-chair
JoEllen McBride (in her personal capacity)
Jessica Mink (Harvard-Smithsonian Center for Astrophysics)
Maria Patterson (High Alpha)
Christina Richey (NASA Jet Propulsion Laboratory)
Gregory Rudnick (University of Kansas)
Angela Speck (University of Texas – San Antonio)
Tiffany Stone Wolbrecht (Ward Beecher Planetarium at Youngstown State University)
Nicolle Zellner (Albion College), Co-chair

Board Liaison

Nancy D. Morrison (University of Toledo, retired)

People rotating off of CSWA or otherwise leaving their positions are:

Joan Centrella (West Virginia University)
Patricia Knezek (in her personal capacity), Co-chair
Christina Richey (NASA Jet Propulsion Laboratory)
Angela Speck (University of Texas – San Antonio)
Nancy D. Morrison (University of Toledo, retired)

Overview

The Committee on the Status of Women in Astronomy was established in 1979 with the charge to recommend to the Council practical measures that the AAS can take to improve the status of women in astronomy and encourage their entry into this field. This Annual Report will focus on CSWA activity from June 16, 2019 to June 15th, 2020.

Communications/Publications

Women in Astronomy Blogspot

The CSWA actively maintains a popular Women in Astronomy blog, which can be found at <http://womeninastronomy.blogspot.com/>). Over the past year, we published 100 blog posts, 43 with original content, in addition to the weekly *AASWomen* newsletter and cross-posts from other sources. The blog averaged around 15,000 views per month. Similar to last year, the present one has seen no spikes in views. Our viewership has also remained consistent during the pandemic with a slight increase from around 15,000 views to 19,000 views between March and May. The reporting period falls between the two red lines in Figure 1.

JoEllen McBride, the Blogger-in-Chief during the period, solicited many original items from outside authors. She also restarted the “Career Profiles” series and the “Meet Your CSWA” series with varied success. Katie Eckert and Regina Jorgenson joined the blogging team in the Fall of 2019 and have helped kick start our “2-body Problem” series which has had great success. We have posted both anonymous and authored pieces from women-identifying astronomers and department leaders about their experiences navigating this pressing concern. The CSWA also coordinated with the other diversity committees (SGMA, CSMA) to blog about diversity and inclusion events and People of Color presenting at the AAS meetings. We additionally compiled and summarized the diversity and inclusion papers submitted to the Astro2020 Decadal Survey; this has been very useful in serving as a reference site.

The most popular posts of all time are unchanged from last year (as seen in Figure 2), and many of our older posts are still bringing traffic to the site. These posts cover the topics of harassment (both gender and sexual), sexism, and gender identities. There are two popular posts that cover privilege and mental health as well. During the month before this report was compiled, the most-viewed posts include a mix of current and past posts (Figure 3). We do not know, however, how much of this is driven by spammers leaving comments on the site. The Blogger-in-Chief reports anywhere from 2-20 comments a day as spam. Those numbers have increased since the COVID-19 pandemic.

Most of our traffic comes from Google and Facebook, highlighting the importance of promoting our posts on social media. We started adding photos to the blog posts so that a picture shows up on the automatic Facebook post. The cover photo increases the likelihood of interaction with the Facebook post and reads for the article. Our website is one of the top results in Google searches for ‘women in astronomy’ and ‘women in astronomy blog’, which shows the relevance of the blog. Our audience is mostly US-based but we see traffic from Russia, Canada, UK, Germany, and France, which shows that our topics are resonating with astronomers worldwide.

The blogging team will continue promoting posts on diversity and inclusion and highlighting astronomers and other scientists from underrepresented groups through our Career Profiles, 2-body Problem series, and other posts.

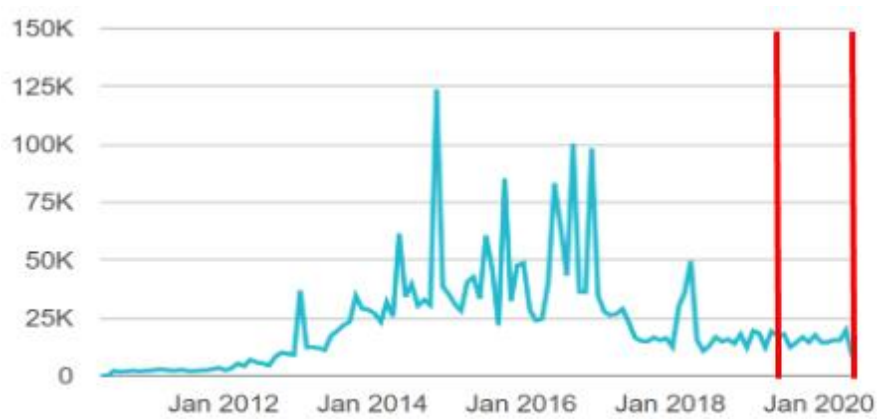


Figure 1. Viewership of the CSWA blog from January 2012 to the present.

osts

Entry	Pageviews
It's Not About That Damn Shirt Nov 20, 2014, 62 comments	94417
"First" Impressions Sep 19, 2016	67144
Guest Post: Understanding Gender ... Oct 3, 2016	50069
Fed Up With Sexual Harassment: T... May 14, 2014, 22 comments	49677
Where Are We on Harassment? Apr 3, 2018	37258
Unreported Sexual Harassment at ... Jul 6, 2015, 12 comments	31528
Stop Interrupting Me: Gender, Conv... Jul 2, 2014, 10 comments	27103
Astronomer Privilege Jun 1, 2016	25251
Obscene Phone Calls and Emails Aug 5, 2015, 47 comments	18318
Autism Isn't the Problem Mar 13, 2018	16856

Figure 2. The most popular CSWA blog posts of all time.

Posts

Entry	Pageviews
AASWomen Newsletter for October... Oct 5, 2018	568
Call to Participate in Strike for Black... Jun 8, 2020	382
Fed Up With Sexual Harassment: T... May 14, 2014, 22 comments	281
Confronting Race and Racism to M... Oct 20, 2014, 1 comment	256
Ain't I a woman? At the intersection ... May 5, 2014, 2 comments	211
Cross-post: What are the impacts o... May 19, 2020	192
I was wrong and I am sorry Apr 29, 2015, 26 comments	178
Women Leading Pandemic Resear... Jun 2, 2020	165
AASWomen Newsletter for May 22,... May 22, 2020	161
AASWomen Newsletter for May 29,... May 29, 2020	155

Figure 3. The most popular CSWA blog posts in the past month, as of June 1, 2020.

AASWomen Newsletter

Since at least 1999, the CSWA has published a weekly email newsletter called *AASWomen*. In 2019-2020, the regular editors were JoEllen McBride (lead), Heather Flewelling, Maria Patterson, and Alessandra Aloisi. Nicolle Zellner put together the newsletter at least three times during the year.

A typical *AASWomen* newsletter issue contains cross-posts of commentaries at the CSWA's website Women in Astronomy (womeninastronomy.blogspot.com) and information about AAS special sessions including CSWA events at AAS meetings. It also contains contributions from the community, including requests for and responses to information and/or advice; links to news items about women in science; announcements of honors and awards given to women in science; information about upcoming programs and meetings; proposed bills or policy changes affecting women in science; and links to internship and job opportunities. Some of the items included this year are

- research and news on gender studies, including sexual harassment and other actions that can lead to loss of female talent in STEM;
- news stories on women who have been recognized for their outstanding research (and other) contributions to advancing STEM; and
- articles about historical women who have contributed to our understanding of astronomical topics.

The newsletter is cross-posted on the Women in Astronomy blog site as well as on the CSWA Facebook page and Twitter. As of June 2020, *AASWomen* increased its readership to 1628, growing by about 3% since May 2019. The AAS' decision to migrate its mailing lists to Mailman negatively affected the distribution of *AASWomen* for several months in the beginning of 2019, resulting in missed communications and lost subscriptions. It appears that most (but not all) of the issues have been resolved.

The archive to the newsletter can be found at <https://cswa.aas.org/AASWOMEN.html>. JoEllen has stepped down as lead editor and Heather Flewelling took over that responsibility in May 2020.

Status

First published in 1987, *Status* was the CSWA's semiannual print (then electronic) publication, but no issue has been published since January 2016. In early 2020, the CSWA voted to officially retire *Status*. Some shorter, less formal articles that formerly were published in *Status* are now appearing in the Women in Astronomy blog, and the CSWA plans to arrange for publication of longer, more scholarly articles in the *Bulletin of the AAS (BAAS)* now that it is again available for this purpose. The archive of *Status* issues can be found at <https://aas.org/comms/cswa/STATUS>.

CSWA web pages

The logical structure of the web pages is essentially unchanged. Resource pages are updated from time to time, and we are hoping to revise the web site in the coming year, in keeping with priorities of our new Strategic Plan.

With the move to the new web page addresses, we continue to get reports and/or monitor the pages to find and repair broken links. Currently, almost the entire archive of *AASWomen* is inaccessible as none of the links to back issues (newsletters prior to January 2019) were migrated into the new system. Additionally, the "Women in Astronomy Database" continues to be offline, with no anticipated re-start date. As part of strategic planning, the need and rationale for the database and their impact on the structure of it will be re-thought. If the database is still needed, it will be rebuilt from scratch because the code is outdated.

Twitter & Facebook

As of 21 June 2020, the CSWA Twitter account, @AAS_Women, has more than 2,200 followers, an increase of ~10% over the previous year. Most tweets are shares of links to news articles, including those mentioned in *AASWomen*. The CSWA Facebook page has almost 2000 followers and has garnered over 1800 "likes".

Projects

Survey on Workplace Climate (2015 - present)

As reported in previous years, the CSWA Survey on Workplace Climate was designed to provide information regarding how many in the astronomical community encounter negative language, or experience verbal or physical harassment on the basis of gender, gender identity, sexual orientation, ability status, or race and ethnicity. The survey was designed to request the same information at different stages in a respondent's career in order to understand whether astronomers encounter increased or varying types of harassment over time. For details about the survey itself, see the reports from previous years.

The workplace climate survey work began in 2015 and has led to several high-level plenary speeches and two referred articles. The first was published in 2017 (Clancy et al., *JGR-Planets*, <https://doi.org/10.1002/2017JE005256>), and the second article was published in 2020 (Richey, C. R., Lee, K. M. N., Rodgers, E., & Clancy, K. B. H., Gender and sexual minorities in astronomy and planetary science face increased risks of harassment and assault, *Bulletin of the AAS*, 51(4), <https://baas.aas.org/pub/2019i0206>), after going through a rigorous peer review. The paper focuses on the LGBT+ population of the astronomical community. Lesbian, gay, bisexual, transgender, queer/questioning, pansexual, asexual, and/or nonbinary (LGBTQPAN) people are a vulnerable, yet understudied group in the American STEM workplace. In this paper, the co-authors explored the experiences of LGBTQPAN individuals in the astronomy and planetary science community. They found that LGBTQPAN women and gender minorities observed more homophobic and transphobic remarks from their peers, and were more likely to feel unsafe at

work due to their race, sexual orientation, and gender identity, compared to cisgender, straight women. They were also more likely to be verbally harassed due to sexual orientation and gender identity, and were fully twice as likely to be physically harassed due to gender or sex. Based on our sample, the authors suggest that LGBTQPAN women and gender minorities experience a more hostile workplace climate in astronomy and planetary science compared to cisgender, straight women.

Several more papers are planned, including one focused on understanding the impact of ableism on those with disabilities and one focused on the respondents' understanding of the policies and procedures designed to improve and to properly document and report workplace climate and issues such as harassment.

CSWA Papers (2019 - present)

During 2018 and 2019 the CSWA led an effort to gather information about what are seen by our community members as the areas of key importance beyond scientific research that the AAS, its divisions, and its relevant committees (including the CSWA itself) should focus on as we move into the 2020s. The information gathered from several special sessions was used to create a survey for the members of the communities that the AAS and its divisions serve, to tell us which of the many activities and ideas that were brought to our attention at the above sessions were most important/impactful and tell us about anything we may have missed (see [2020AAS...23537803W](#) for information on the survey results).

Results from the survey resulted in the development of two white papers, one entitled “Findings and Recommendations from the American Astronomical Society (AAS) Committee on the Status of Women in Astronomy: Towards Eliminating Harassment in Astronomy,” and the other entitled “Findings and Recommendations from the American Astronomical Society (AAS) Committee on the Status of Women in Astronomy: Advancing the Career Development of Women in Astronomy”. Both of these were submitted to the call for the Astronomy and Astrophysics Community for Activity, Project, and Statement of the Profession Consideration (APC) White Papers, [2019 BAAS 51\(7\) 169](#) and [2019 BAAS 51\(7\) 170](#), respectively. Patricia Knezek and Rachel Wexler, although leading the effort, do not appear on the author list due to a potential for an appearance of a conflict of interest since they were employed by NASA at the time of drafting the white papers. A more detailed analysis of the survey results has been done, led by Rachel Wexler, and a draft paper is in preparation (see the section titled **Path Forward in 2020-2021**). Results of the survey also formed the basis of a developing Strategic Plan.

Strategic Plan (2019 - present)

Completing a decade after the 2009 CSWA Strategic Plan, with notable successes, the current members of the CSWA initiated a process of evaluating the decade's work and drafting a new strategic plan with targets and concrete projects for the committee's next 5-10 years of activities. A subcommittee was formed, consisting of the CSWA's chairs (Pat Knezek and Nicolle

Zellner) and volunteers from the committee (Gregory Rudnick, Stella Kafka, James Tuttle Keane, Regina Jorgenson, Tiffany Stone Wolbrecht, Maria Patterson). Based on the 2019 CSWA survey (2020AAS...23537803W), the subcommittee concluded that more action needs to be taken to level the field for women in astronomy. Present challenges range from professional difficulties (e.g., seeking funding and telescope time), to sociological ones (e.g., compensation at all levels, the two-body problem, and include the typically uneven distribution of dependent caregiving responsibilities), unrealistic expectations, implicit bias, and lack of efficient mentorship. The subcommittee agreed that the unique role of the AAS to establish policies and best practices becomes more urgent in order to improve the retention of women and minorities in astronomy. The 2019 survey also showcased that, although harassment is addressed and anti-harassment policies are in place, harassment and discrimination in astronomy is still a major issue, with new forms of harassment emerging as the field becomes more diverse.

The subcommittee worked closely to identify issues that need to be addressed in the near future. Four major focus areas were identified: harassment and bullying; creating inclusive environments for an ethical workplace; professional development; and CSWA operations and Interactions. The latter emphasized that the key to the success of the CSWA's work in the future is a closer collaboration with other diversity committees of the AAS, with the AAS's Employment Committee and with the DPS's Professional Culture and Climate Subcommittee. Considering the common challenges all minorities face, a synergy will increase the impact of the work of all committees. To the CSWA's point, it is essential to increase awareness of intersectional issues and emphasize the need for support of women with multiple minority identities.

Each of these focus areas was discussed in length among committee members and feedback was solicited from all of the AAS diversity committees. Specific recommendations/projects were drafted to address those issues and make significant positive progress. The Strategic Plan is currently undergoing refinement and will be submitted to the AAS Board for review and discussion.

Meeting Activities

Inclusive Astronomy (October 2019)

Members of the CSWA, including Nancy Morrison, Angela Speck, and Nicolle Zellner attended the Inclusive Astronomy 2 meeting, hosted by the Space Telescope Science Institute. As Co-chair, Nicolle presented a talk focused on The CSWA White Papers, as described above.

The 235th Meeting of the American Astronomical Society (January 2020)

At the Hawaii meeting, the CSWA participated in the Student Orientation & Grad School Fair and members were able to meet several attendees. However, placement of the AAS diversity committees at the back of the room and out of the flow of student traffic affected how many people we were able to interact with. The CSWA also hosted a "Meet & Greet" with committee

members, in celebration of 40 years since the establishment of the CSWA. This was followed by a joint session with the organizers of the Conference for Undergraduate Women in Physics. Around 100 people total attended both events. In addition, Rachel Wexler presented the work she led in analyzing the CSWA community survey in an iPoster, 2020AAS...23537803W.

The 236th Meeting of the American Astronomical Society (June 2020)

Given the virtual nature of the summer meeting, the CSWA re-organized its “Meet & Greet” in the form of a panel discussion, hosted and moderated by the CSWA (Stella Kafka) with panel members from SGMA (Rolf Danner), CSMA (Nicole Cabrera Salazar), and WGAD (Jackie Monkiewicz). At the peak, ~50 people attended, listening to the panelists discuss pre-determined topics (as ascertained by a community-wide survey) and participating in a lively discussion in the chat box.

CSWA Sponsorship

Given the increase in the number of sponsorship requests, a sub-group of the CSWA spent the fall of 2019 developing an Endorsement Policy that was subsequently adopted by the committee as a whole. This policy was advertised on the blog page, on the Astronomers Facebook page, and as an AAS news announcement. It can currently be found as a link on the AAS CSWA site at <https://aas.org/sites/default/files/2020-03/2020.EndorsementPolicy.Adopted022320.pdf> .

As a committee, we agreed to endorse the 2020 in-person Maria Mitchell Women of Science Symposium and to continue that endorsement when the organizers decided to make the meeting virtual.

Cross-Over with other Committees and Task Forces

We made significant efforts across AAS diversity committees to reach those with multiple minority/intersectional identities, a key “ask” from our CSWA 2020s priorities survey respondents and a key recommendation in our two Astro2020 white papers, as discussed above (*CSWA Survey and Subsequent Papers*). See also earlier points on cross-committee efforts on multiple fronts such as co-sponsored AAS activities and special sessions. Currently we have one liaison to another diversity group, Jessica Mink (SGMA); the original liaisons to CSMA and WGAD completed their CSWA rotations in 2019 and we had difficulty recruiting new liaisons from those committees. Given the many demands on the time of the volunteer committee members, especially those on the diversity committees, the CSWA has been considering different models for more diversity committee coordination as a part of its strategic planning effort. In particular, as the longest standing diversity committee, which currently has a healthy membership size, the CSWA has been considering ways to provide more coordination. The CSWA virtual “Meet & Greet” at the 236th AAS was a first step in that effort.

Code of Ethics Committee

The charge to this committee is to promote a high level of ethical conduct by astronomers through development and sponsorship of educational activities for AAS members and other astronomers; to oversee the investigation of complaints concerning possibly unethical conduct of AAS members, attendees of AAS-sponsored meetings, and users of AAS-sponsored services; and to supervise mediation or recommend sanctions when a violation of the Code is found to have occurred (see: <https://aas.org/comms/ethics>). For the past year, CSWA member Angela Speck has been a member of this committee.

Physics & Astronomy SEA Change Working Group

The American Association for the Advancement of Science (AAAS) has developed the STEM Equity Achievement (SEA) Change initiative, which supports institutional transformation in support of diversity and inclusion, especially in colleges and universities. SEA Change—a LEED-like self-assessment, metrics, standards, and award program—challenges, supports, and recognizes institutions of higher education and their departments/schools for taking decisive actions to remove systemic, structural barriers for women, blacks, Hispanics, Native Americans, people with disabilities, and others who are marginalized, with a clear aim: to enable the full diversity of talented individuals to pursue, and persist and succeed in, science, technology, engineering, medicine and mathematics (STEM) higher education (at all levels) and academic careers. CSWA members Pat Knezek and Nicolle Zellner, along with AAS Education Committee chair Kim Coble, have been participating in the AIP Physics & Astronomy SEA Change working group, which is focused on developing the infrastructure to enable individual physics and/or astronomy departments to participate in SEA Change. The group now has an AIP Venture Partnership Fund award to conduct a Physics and Astronomy SEA Change Departmental Award Pilot, and it is finalizing its policies and process for conducting these assessments, as well as completing the set up of its overall governance and oversight organization. The hope is to run the pilot program in the fall of 2020, although there is some uncertainty due to the evolving COVID-19 situation. Stella Kafka is replacing Pat Knezek going forward.

Ethics Task Force

CSWA co-chair Pat Knezek has served on the AAS Strategic Assembly Ethics Task Force, which is charged with collecting and organizing the input regarding the handling of reports of violations of the Code of Ethics and the AAS Harassment Policy, to identify questions for the Board of Trustees, and to identify actions for the Board of Trustees to discuss and enact. This Task Force continues to meet and move forward addressing various issues, and is in the process of developing a proposal to submit to the AAS Board to become an official committee of the AAS.

Site Visit Oversight Committee

James Tuttle Keane has been appointed to serve on this committee in the capacity of CSWA liaison, replacing Nancy Morrison. A scheduled site visit in 2020 has been postponed.

Path Forward in 2020-2021

The CSWA continues to use the results of the 2019 community survey to inform its actions. For example, results have been used to draft a paper of recommended actions for the AAS, its committees (including the CSWA), and its divisions, to consider. This will be submitted to *BAAS* for publication. Results are also being used by the CSWA as it develops a Strategic Plan to guide the committee over the next 5-10 years. Specifically, many of the recommended activities that fall under the focus areas in the new Strategic Plan were developed as a result of the survey and will be prioritized and implemented by the CSWA, starting in the next several months.