

Workforce Survey of 2018 US AAS Members Summary Results

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OVERVIEW – Who Was Surveyed

This survey is the third in a series of sample surveys of AAS members. The first was conducted in 2013 and the second in 2016.

The sample consisted of 3,354 AAS members in the United States. Members who lived outside of the U.S. were not included in the survey. We received 2018 responses, a response rate of about 60%.

The table below shows where the responses came from, and how it compares to the sample and overall contact list we worked from. The left column is the total number of AAS members we had contact information from, while the middle column is the breakdown of the sample we drew. The right column represents the breakdown of responses we received. No single question in the survey received an answer from every respondent.

A new gender question was used this year, which makes comparing longitudinal gender data impossible. Of the responses we received to the new gender question, 1275 respondents identified as men and 586 identified as women. We also added a separate question for transgender individuals which we cannot report on due to confidentiality issues.

Membership Types, 2018 Survey						
Membership Type	All N	All %	Sample N	Sample %	Resp N	Resp %
Full	4127	61%	2044	61%	1275	62%
Student (graduate or undergraduate)	1866	28%	943	28%	535	26%
Emeritus	588	9%	293	9%	168	8%
Educator affiliate	84	1%	46	1%	31	2%
Associate member	54	1%	28	1%	9	-
Total	6719		3354		2018	

HIGHLIGHTS

- The majority of US AAS members have earned a PhD (*Table 1 & Figure 1*). Almost all of those who are still students intend to get their PhD eventually. The majority (67%) have earned their highest degrees in the fields of astronomy or astrophysics (*Table 5*).
- AAS members' careers are largely concentrated in academe at universities and 4-year colleges, which employed over half (54%) of US AAS members with PhDs (excluding current postdocs). Of these, just over half are tenured, and an additional 16% are in a tenure-track position. (*Tables 9 & 11, Figures 6 & 7*).
- Excluding current postdocs, about 22% of US AAS members classified their employment status as temporary (*Table 8*). Many were visiting and adjunct professors, research assistants, or working contract jobs with finite durations.
- Data indicate that over time, proportionally more astronomy PhDs have taken postdocs and, on average, are in their postdoctoral positions for longer durations (*Table 12*).
 - Of PhD members who are retired, 55% reported taking a postdoc with a median cumulative duration of 2.5 years.
 - Of those currently employed who earned PhDs, 81% reported taking a postdoc with a median cumulative duration of 4 years.
- Employer type and years since degree had statistically significant impacts on the average salaries of AAS members (*Table 22*).
- Members viewed job scarcity and lack of funding as primary challenges to the field of astronomy. Many also mentioned the struggles of balancing work and family life as an issue. (*Appendix*).
- This report includes comparisons to the 2013 and 2016 data on selected topics.

RESULTS

US AAS MEMBERS – Academic Experience and Employment Status

Table 1 – Highest Degree Earned

Highest Degree Earned by US AAS Members, 2018		
	%	N
PhD	71	1431
Master's	13	272
Bachelor's	10	210
No college	3	62
Other	2	42
Total		2017

- 434 respondents (22%) were currently enrolled in a degree program
 - 68% of bachelors were currently students
 - 68% of masters were currently students
 - All respondents who selected “no college” were students
- 93% of respondents who were currently students indicated that they aspire to earn their PhD when asked “what is the highest degree you are planning to obtain?”
- There is a gender difference in degree aspirations, with fewer women than men reporting that they aspire to earn PhDs.

Figure 1 – Highest Degree Earned

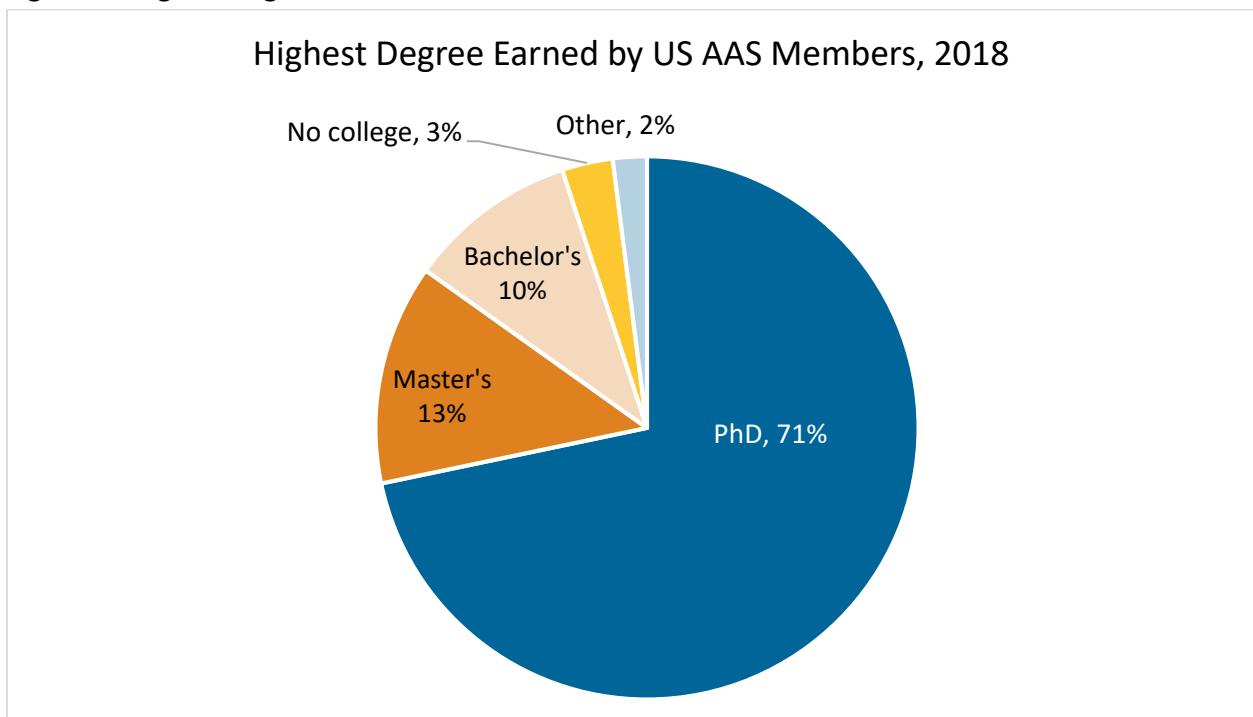


Table 2 – Highest Degree Earned by Gender

Highest Degree Earned by US AAS Members by Gender, 2018		
	Men	Women
PhD	77%	58%
Master's	12%	18%
Bachelor's	8%	16%
No college	2%	5%
Other	2%	3%
Total	1298	594

Figure 2 – Highest Degree Earned by Gender

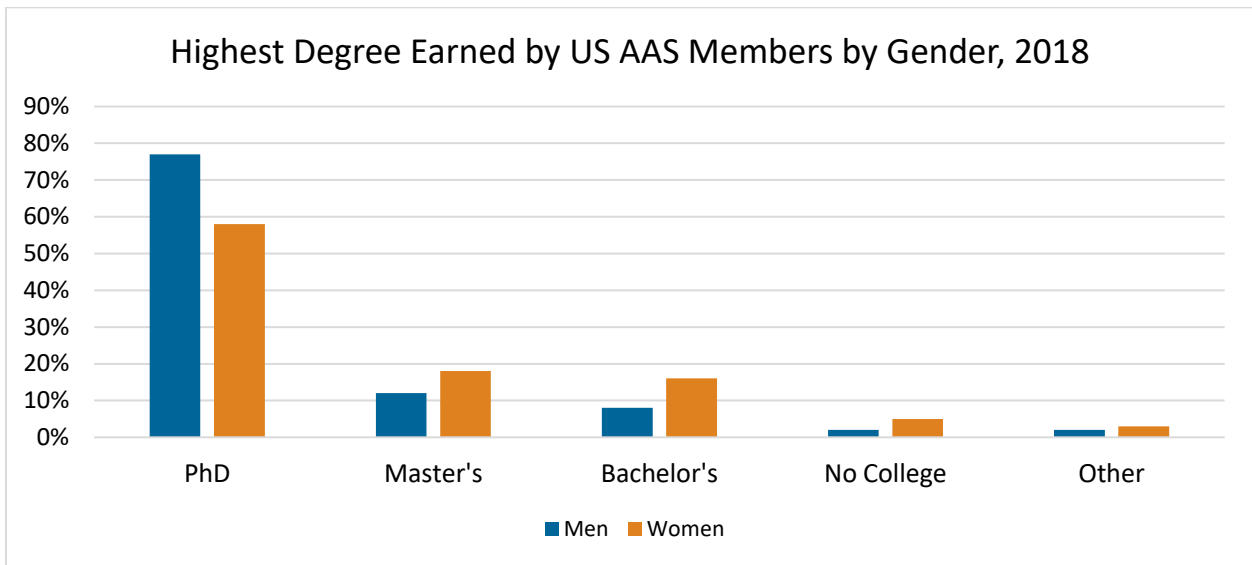


Figure 3 – Highest Degree Earned by Gender and Birthyear

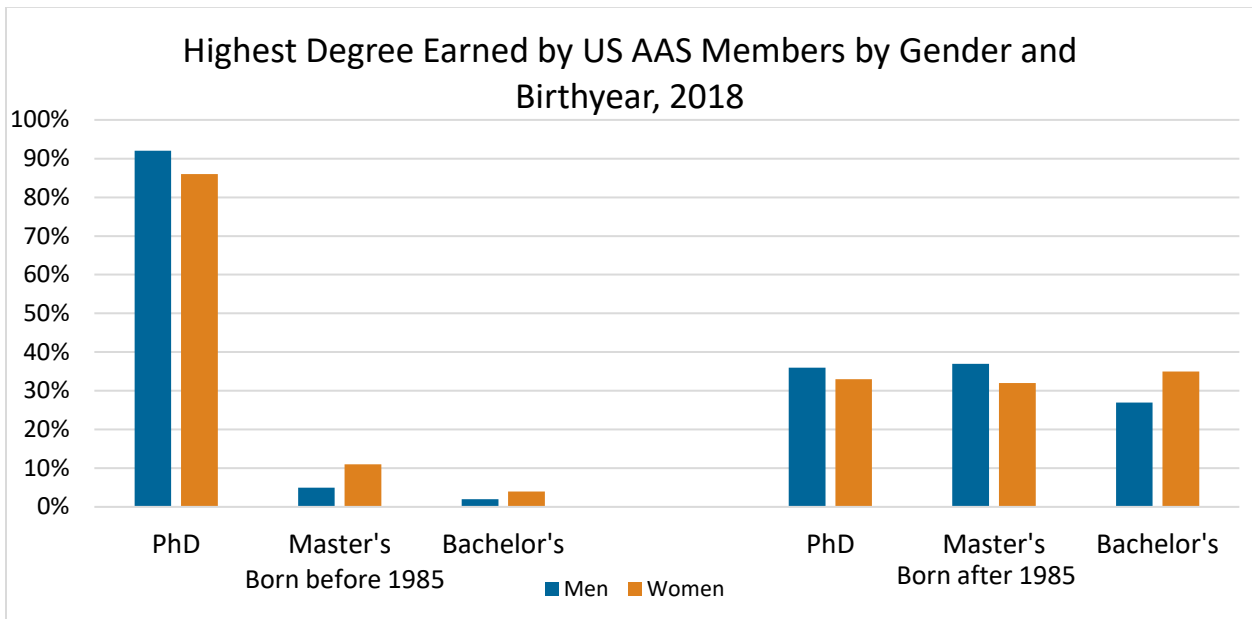


Table 3 – Year of Degree

Year of Degree of US AAS Members with PhDs, 2018			
	25 th percentile	Median	75 th percentile
Year of PhD	1983	1997	2010

- The median year that AAS members with doctorates earned their degrees was 1997.
- A quarter of respondents with PhDs earned their degrees in or after 2010.

Figure 4 – Year of Degree

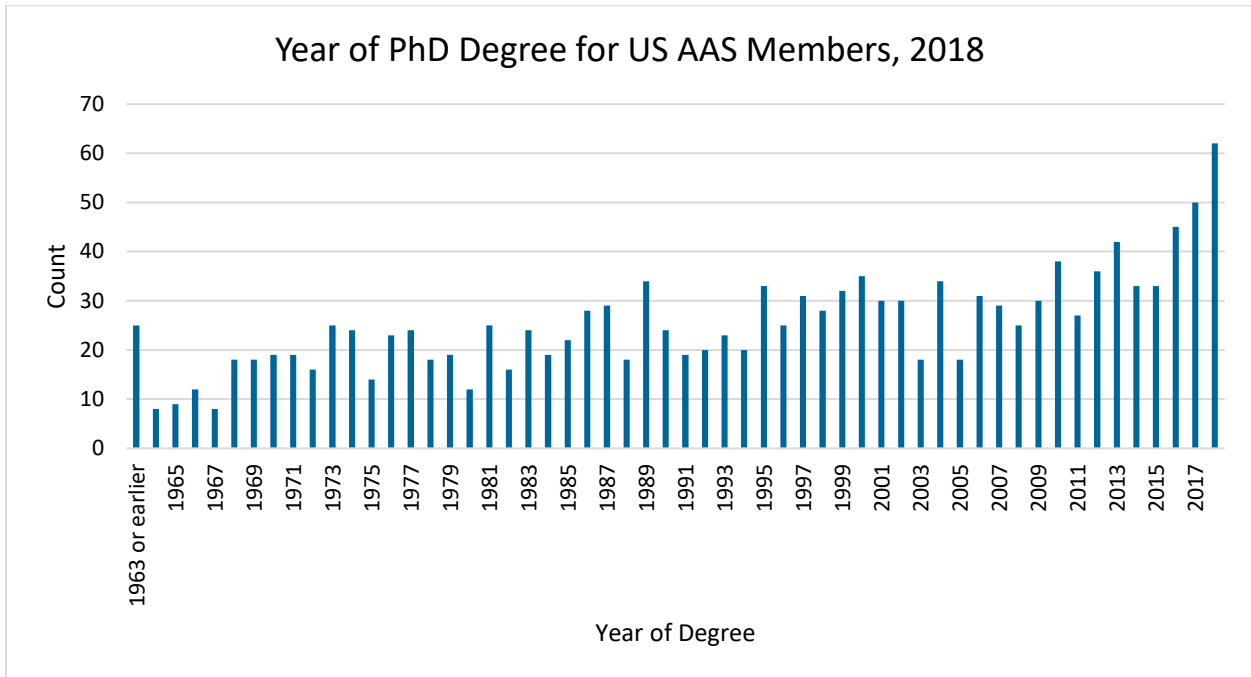


Table 4 – Country of Degree

Country of Degree of US AAS Members with PhDs, 2018		
	%	N
In the U.S.	84	1196
Outside of the U.S.	16	227
Total		1423

Table 5 – Field of Degree

Field of Degree of US AAS Members, 2018		
Field	%	N
Astronomy or astrophysics	67	1292
Physics	35	680
Engineering	3	51
Planetary science	2	37
Math	2	37
Something else	6	119
Total*		1934

*The sum of percentages exceeds 100 because respondents were asked to check all that apply.

- The vast majority of AAS member respondents earned their degrees in astronomy, astrophysics, or physics.
- Common engineering subfields included aerospace and mechanical.
- Write-in responses for “Something else” were nearly all scientific fields, with the most common being geology, geophysics, education, and chemistry.

Table 6 – Field of Degree Over Time

Field of Degree over time of US AAS Members, 2013 - 2018			
Field	2013	2016	2018
Astronomy or astrophysics	71	69	67
Physics	31	32	35
Planetary science	2	2	2
Engineering	2	2	3
Math	1	1	2
Something else	3	5	6
Total*	1564	1738	1934

*The sum of percentages exceeds 100 because respondents were asked to check all that apply

- Over time, the percentages in each field of degree have not changed much, with the exception of more AAS members reporting “something else.”

Table 7 – Employment Status

Employment Status of US AAS Members, 2018		
	%	N
Employed, full-time	79	1251
Employed, part-time	7	117
Not employed	13	213
Total		1581

- Of those not employed, the majority (90%) were retired. The remainder were split between those seeking employment (n=15, 7%) and those choosing to be out of the workforce (n=7, 3.4%).
- More women respondents were employed full time than men (85% vs 77%).
 - This may be because a higher proportion of older respondents were men (*see table 18*)

Figure 5 – Employment Status

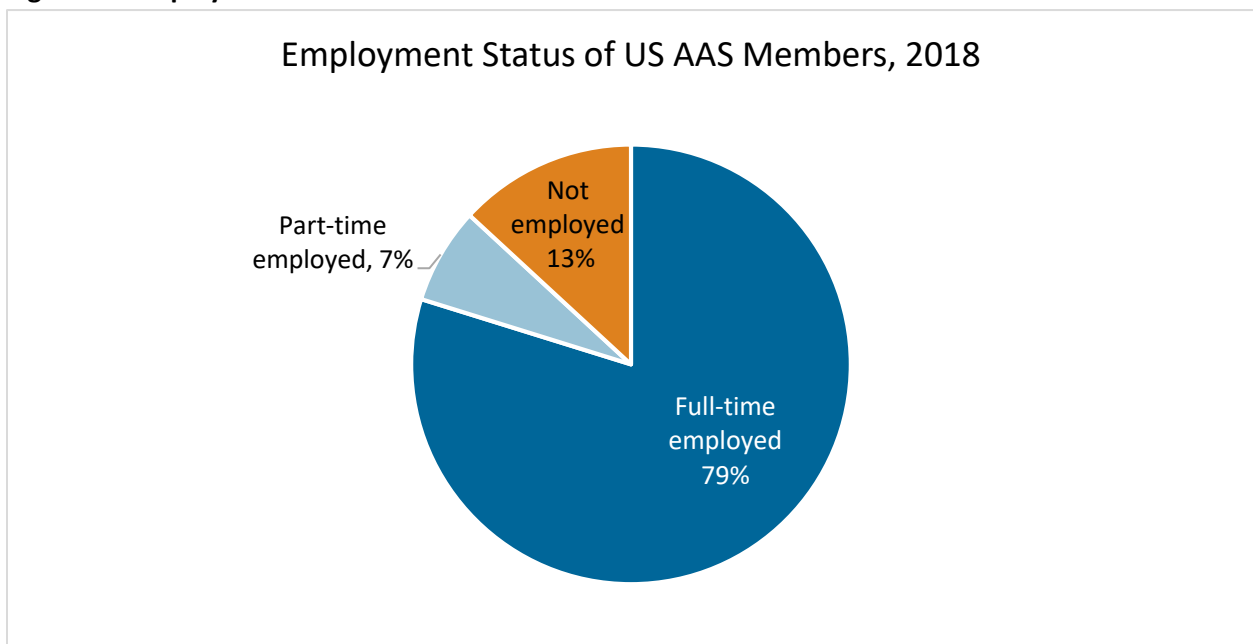


Table 8 - Employment Type

Employment Type of US AAS Members, 2018		
Position type	%	N
Potentially permanent	78	1068
Temporary	22	297
Total		1365

- Of the respondents in temporary positions, 61% (n=180) were currently in postdoctoral positions.
- Other temporary positions included visiting and adjunct professors, research assistants, and contract jobs.

Table 9 - Current Employer

Current Employer of US AAS Members with PhDs, 2018		
Employer or Sector	%	N
University or 4-year college	54	514
Govt. lab or research facility	14	135
Research institute	10	94
Observatory	9	86
Industry	4	39
Other govt.	2	20
2-year college	2	15
Self-employed	1	7
Planetarium or museum	1	7
Secondary school	-	4
Other	3	27
Total		948

Includes full-time employed respondents with PhDs excluding current postdocs.

- AAS members' careers are largely concentrated in academe at universities and 4-year colleges, which employed over half (54%) of AAS members with PhDs.
- Over the last decade, employment by sector has not changed much for AAS members.

Figure 6 – Current Employer

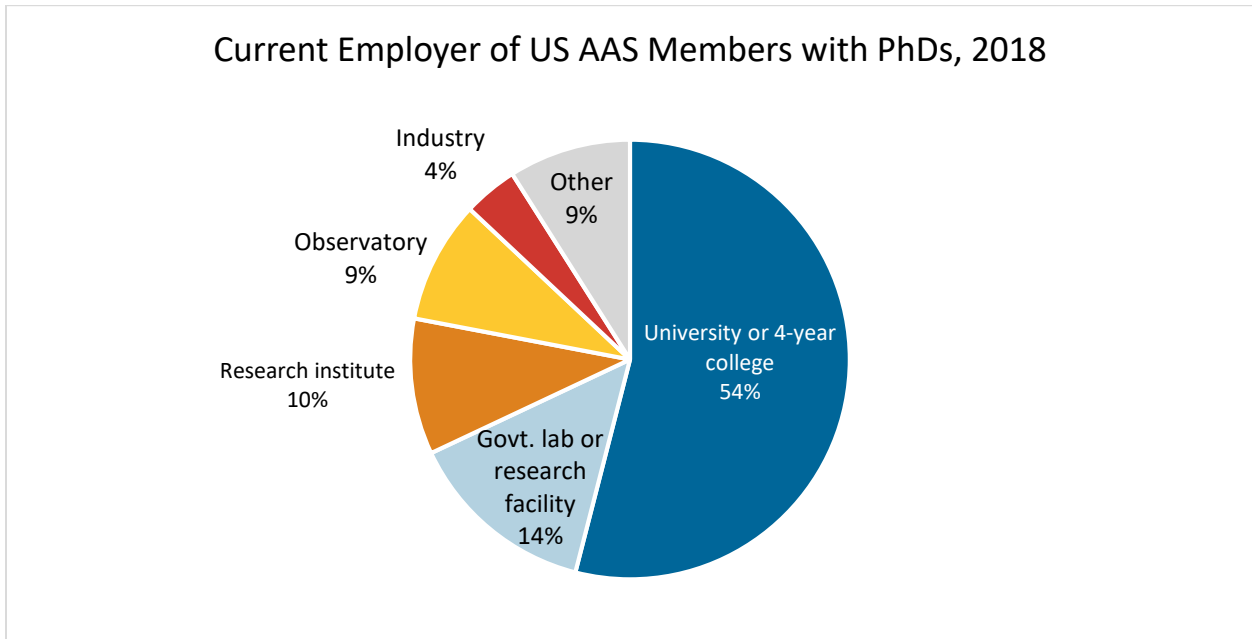


Table 10 - Current Employer Over Time

Employer of US AAS Members with PhDs Over Time, 2018			
Employer or Sector	2013	2016	2018
University or 4-year college	58	55	54
Govt. lab or research facility	14	16	14
Research Institute	8	8	10
Observatory	9	9	9
Industry	4	3	4
Other govt.	2	2	2
2-year college	1	1	2
Self-employed	1	1	1
Planetarium or museum	1	1	1
Secondary school	-	-	-
Other	2	3	3
Total	873	940	948

Includes full-time employed respondents with PhDs excluding current postdocs.

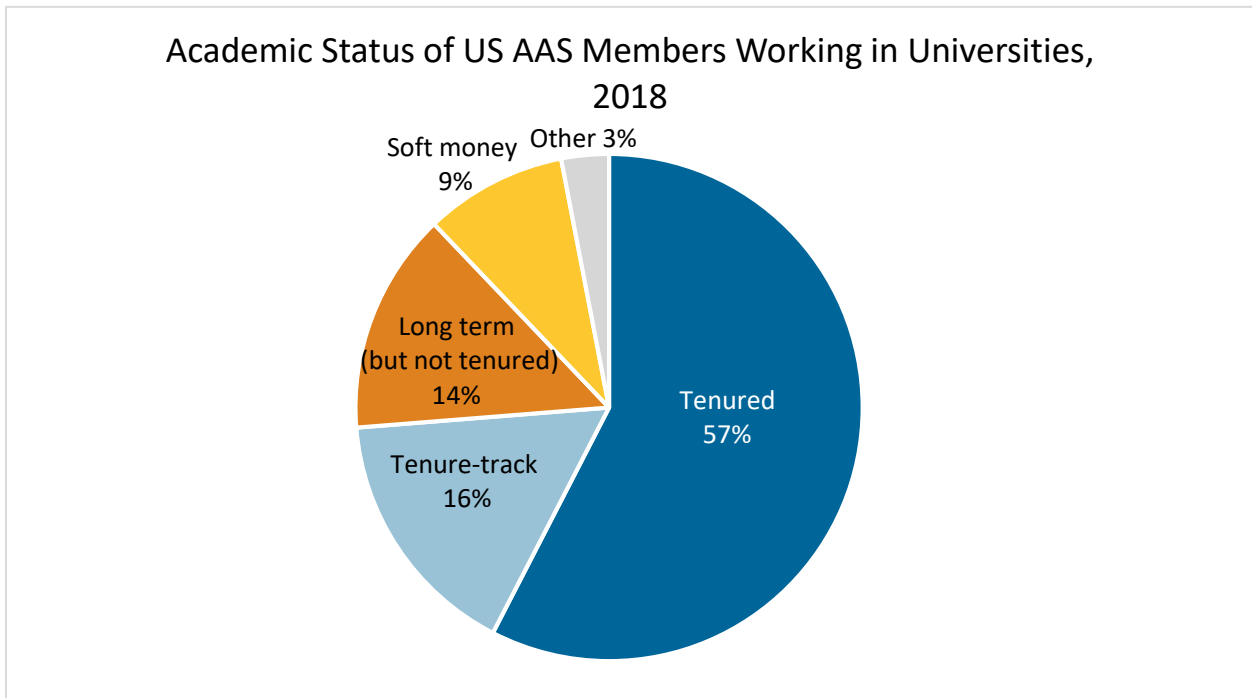
Table 11 – Academic Status

Academic Status of US AAS Members working in Universities, 2018		
Status	%	N
Tenured	57	304
Tenure-track	16	87
Long term (but not tenured)	14	75
Soft money	9	50
Other	3	14
Total		530

The data represent respondents employed full-time at universities and 4-year colleges, excluding postdocs.

- Of AAS members working full-time at universities and 4-year colleges, over half have achieved tenured status, with an additional 16% on track to be eligible for tenure.
- An additional 14% reported having jobs that were not tenured but were long-term.
- The “other” category was comprised of respondents in temporary positions, like visiting professorships and finite, often three-year, contracts.
- Only respondents working in academe were asked about their tenure status. However, respondents employed in other sectors of the economy may also earn tenure.

Figure 7 – Academic Status



EMPLOYMENT – Postdocs and Careers

Table 12 – Postdoc Experience

Postdoctoral Experience by Groups of US AAS Member, 2018		
Group	Took Postdoc %	Median Duration (years)
Current postdocs	-	2*
Employed, with PhD	81	4
Retired, with PhD	55	2.5

*Current postdocs' duration is ongoing.

- Members who are currently working in postdoctoral positions (n=178) had a median degree year of 2016. Half of these respondents have been working in postdoctoral positions for at least 2 years, and 10% are 5 years or more into their cumulative postdoc experience.
- The median salary of current postdocs was \$63,500.
- Of respondents who earned doctorates and were currently employed, 81% took a postdoctoral position after earning their PhDs (n=851). The median number of years of cumulative postdoc experience for this group was 4 years.
- Members who have retired had a median degree year of 1971. 55% of retired members who had earned PhDs took a postdoc (n=94). Retired members' median duration of postdoc experience was 2.5 years.

Figure 8 – Postdoc Experience

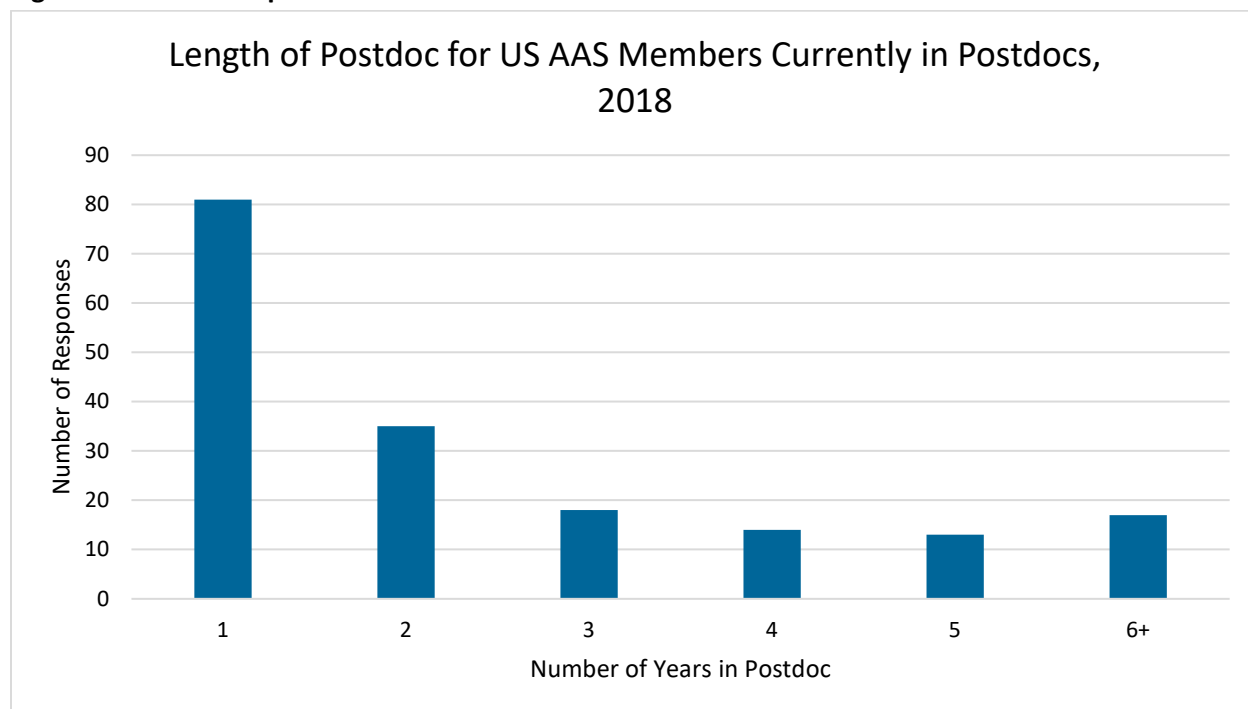


Table 13 – Desired Employer of Postdocs

Desired Employer of US AAS Member Postdocs, 2018		
Desired Employer or Sector	%	N
University or 4-year college	56	100
Research Institute	23	41
Govt. Lab or research facility	11	20
Observatory	4	7
Industry	3	5
Planetarium or museum	1	1
Other	2	4
Total		179

Table 14 – Current Employer of Former Postdocs

Current Employer of US AAS Members who took Postdocs, 2018		
Employer or Sector	%	N
University or 4-year college	57	482
Govt. Lab or research facility	14	116
Research institute	10	84
Observatory	8	72
Industry	3	25
Other govt.	3	24
2-year college	2	14
Planetarium or museum	1	6
Self-employed	1	5
Secondary school	-	4
Other	2	21
Total		853

Excludes current postdocs.

- There were slight differences in the distribution of the types of employers desired by current postdocs (*Table 13*) and the distribution of current employers of AAS members who had taken postdocs (*Table 14*).
 - A larger number of postdocs were hoping to work at research institutes (23%) than were former postdocs actually working at them (10%).
 - Jobs at universities and 4-year colleges remained both the most desired and most often current positions.
 - On the other hand, jobs at observatories are less popular (4%) than the reality (8%).

Figure 9 – Current Employer of Former Postdocs

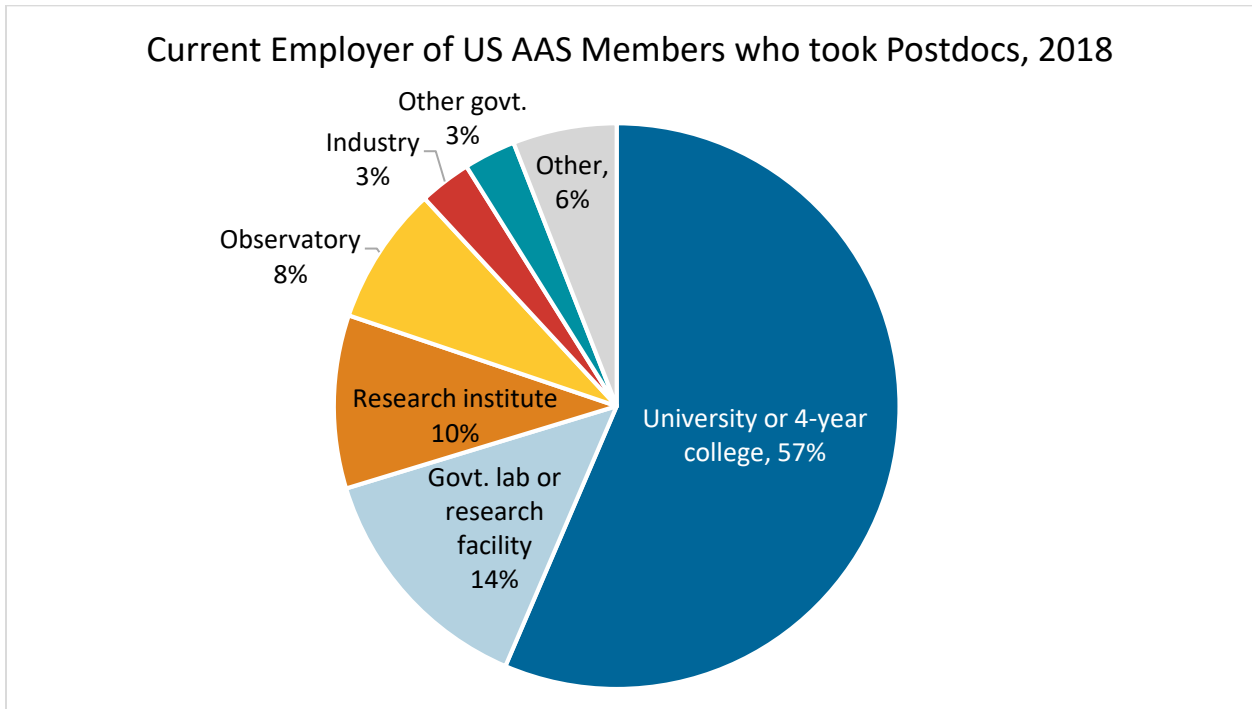


Table 15 – Postdoc Experience by Employer

Postdoc Experience by Employer Type of US AAS Members, 2018		
Employer or Sector	Took a postdoc	
	%	N
University or 4-year college	81	482
Govt. Lab or research facility	76	116
Research Institute	70	84
Observatory	69	72
Industry	43	25
Total*		853

Excludes current postdocs. Employer categories with N < 25 are excluded from the table but included in the totals.

- Of respondents working in universities and 4-year colleges, about 81% had taken a postdoc.
- Those who had taken postdocs comprised 76% and 70% of respondents working in government labs and research institutes, respectively.
- Less than half of those working in industry had taken a postdoc.

Figure 10 – Postdoc Experience by Employer

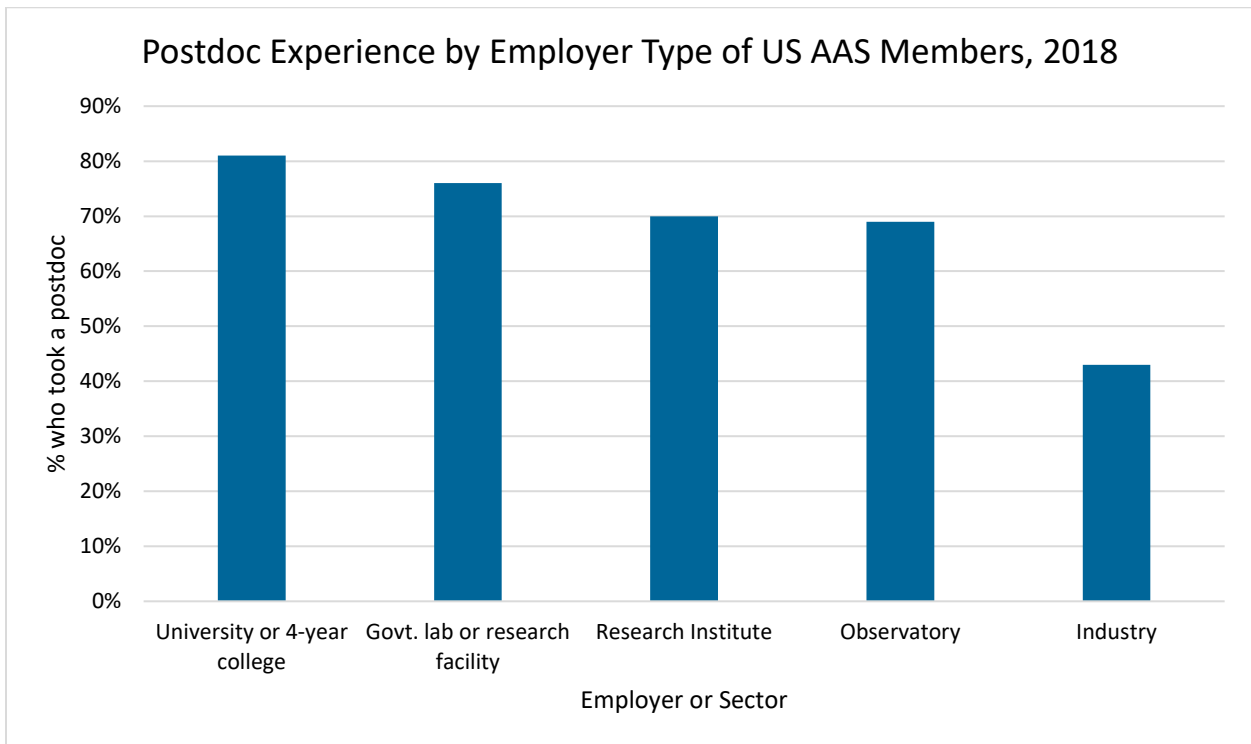


Table 16 - Main Activity in Current Job

Main Activity in Current Job Of US AAS Members, 2018				
Activity	University, 4-year college		All other sectors	
	%	N	%	N
Teaching	38	224	7	44
Devising, conducting observations	17	101	14	81
Theory, N-body simulations	12	69	4	22
Instrumentation, telescope design	5	30	13	75
Data visualization, mining	5	30	7	43
Education or public outreach	3	17	5	29
Management, administration	9	53	26	154
Multiple activities	2	13	1	4
Data analysis	1	4	2	10
Laboratory astrophysics	2	9	1	5
Other research	2	9	2	9
Software, IT	1	7	2	14
Other	5	28	16	93
Total		594		584

Includes current postdocs.

- Software, IT, data analysis, and other research were added based on their frequency in the write-in responses of those who originally selected “Other”.
- Of those who wrote in multiple activities as their main activity, many specified “research and teaching”.
- Several respondents in the “Other” category described their main activity as “support”, presumably providing technical expertise for an instrument or technology.
- As expected, those who reported teaching as their main activity were concentrated in universities and 4-year colleges. On the other hand, management or administration were cited as the main work activity by a larger proportion of those employed in all other sectors than by those working in higher education.

Table 17 - Time Allocation in Current Job

Time Allocation in Current Job of US AAS Members, 2018				
Activity	University,4-yr college		All Other Sectors	
	Average Pct. of Time Spent on Activity	Respondents Doing this Activity	Average Pct. of Time Spent on Activity	Respondents Doing this Activity
Research (includes writing proposals, articles and books, and attending colloquia)	43	655	40	528
Teaching (class, lab time, and prep, office hours, other student contact related to teach or advising)	39	535	32	167
Service activities (TAC, proposal reviews, advisor committees)	13	518	10	371
Education & public outreach	9	360	14	254
Management	19	296	38	307
Observatory/mission support/instrument commission	22	168	43	323
Other	35	24	61	91
Total		694		653

Includes current postdocs.

- A greater proportion of AAS members employed by universities or 4-year colleges reported spending time on research, teaching, service activities and education and public outreach than those employed in other sectors of the economy.
- Conversely, respondents from other sectors accounted for larger proportions and on average spent more time on management and activities involving observatories, mission support, and instrument commission than their colleagues in higher education.
- Similar amounts of time were spent by AAS members in the different sectors on research and service activities.

Table 18 – Primary Areas of Interest

Primary Areas of Interest of US AAS Members, 2018		
	%	N
Star formation & evolution	30	595
Galaxy formation & evolution	23	458
Exoplanets	22	437
Solar systems, planetary science	21	407
Astronomy education	20	396
Supernovae, GRBs, high-energy phenomena	20	385
Cosmology	19	363
Galactic structure and stellar pop.	18	359
Active galactic nuclei	18	346
Interstellar medium	18	344
Clusters of galaxies, large-scale structure	12	243
Astrobiology	10	188
Heliophysics	9	166
Other	19	362
Total		1952

The sum of percentages exceeds 100 because respondents were asked to check all that apply.

- On average, respondents selected 2.5 primary areas of interest.
- Star formation & evolution was the most common area of interest.
- Of the 13 provided response choices (excluding “other”), 10 areas of interest were selected by at least 15% of respondents.

Figure 11 – Primary Areas of Interest

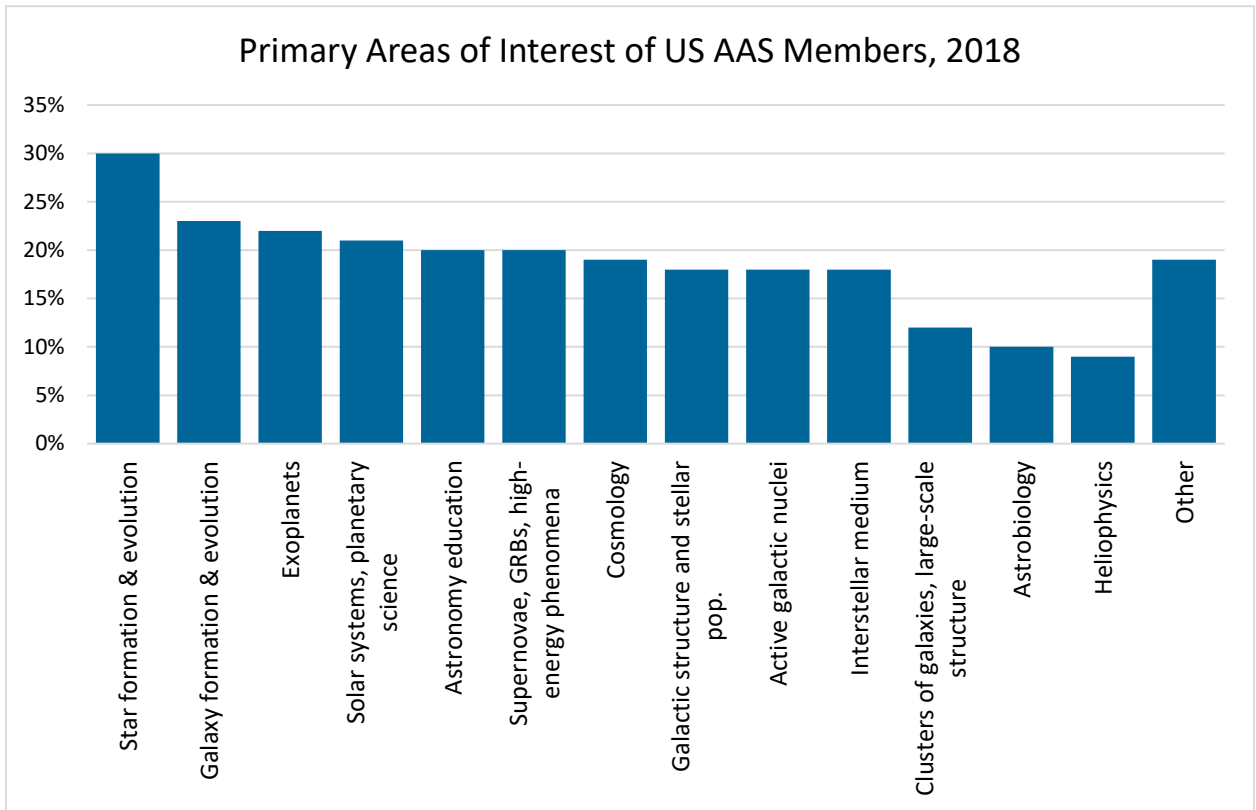


Table 19 – Primary Areas of Interest by Gender

Primary Areas of Interest of US AAS Members with PhDs by Gender, 2018				
	Men		Women	
	%	N	%	N
Star formation & evolution	30	301	33	114
Galaxy formation & evolution*	22	214	27	92
Interstellar medium	21	206	16	56
Exoplanets	20	194	20	69
Cosmology**	20	200	10	35
Solar systems, planetary science	19	190	19	65
Supernovae, GRBs, high-energy phenomena**	19	191	14	49
Active galactic nuclei	19	185	17	60
Galactic structure and stellar pop.	17	171	19	64
Astronomy education*	15	154	22	75
Clusters of galaxies, large-scale structure	13	128	8	27
Heliophysics	8	84	7	23
Astrobiology	7	74	11	37
Other	19	192	19	66
Total N		1000		346

The sum of percentages exceeds 100 because respondents were asked to check all that apply.

* and ** indicate that differences by gender are statistically significant.

- Men are more likely than women to be in Cosmology, along with Supernovae, GRBs & high-energy phenomena (*). Women are more likely than men to be in Galaxy formation & evolution and astronomy education (**).

Figure 12 – Primary Areas of Interest by Gender

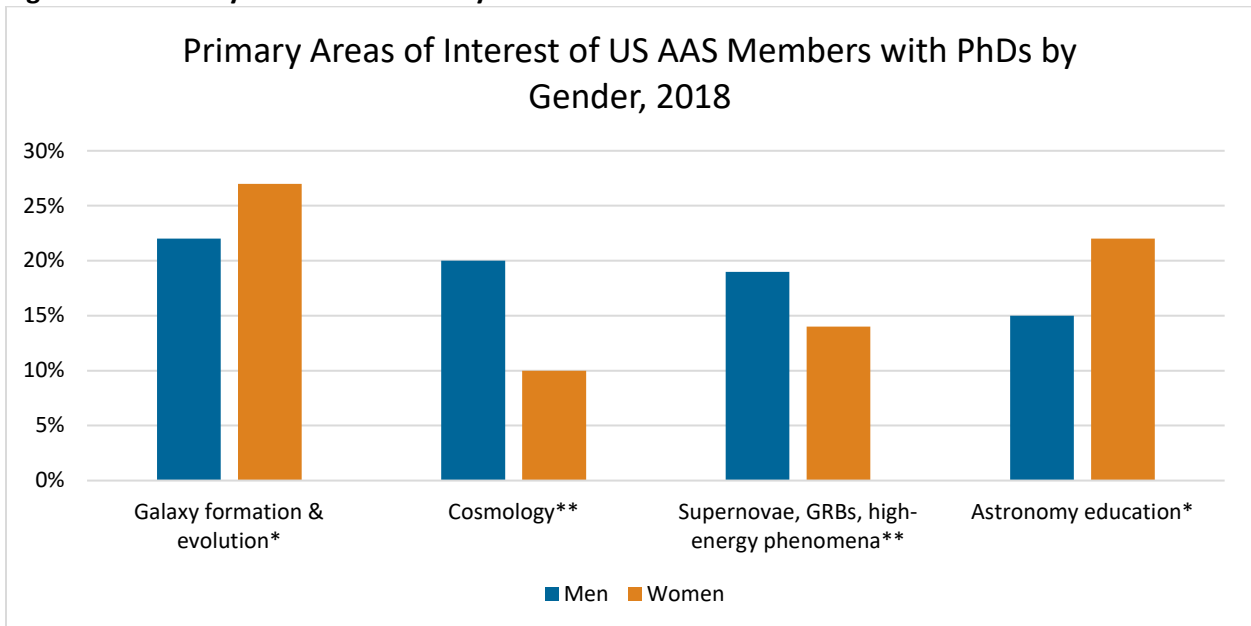


Table 20 – Funding Sources for Salaries

Funding Sources for Salaries of US AAS Members 2018		
	% Receiving Funding	Average % of Total Funding
College/University	44	90
NASA	39	74
NSF	16	57
DOE	4	70
DOD	4	71
Foundation/Grant/Donors	3	74
Other	12	83
Total N		1410

Categories with <3% are not included

Table 21 – Funding Sources for Research and Education Projects

Funding Sources for Research and Education Projects of US AAS Members 2018		
	% Receiving Funding	Average % of Total Funding
College/University	22	45
NASA	68	72
NSF	36	57
DOE	5	48
DOD	3	47
Foundation/Grant/Donors	5	56
Other	10	56
Total N		552

Categories with <3% are not included.

Table 22 – Variables Impacting Salaries

Variables Impacting Base Salaries of US AAS Members with PhDs, 2018		
Variable	Average Additional \$	Level of Significance
Working at a Government Lab	\$15,976	***
Working at a Research Institute	\$18,142	***
Working in Industry	\$27,037	***
Having taken a postdoc	\$4,239	^
Being a man	\$1,886	^
Each additional year since earning PhD	\$1,101	***

***p-value < .01 ^ is not significant Data include respondents who have earned PhDs and are full-time employed excluding postdocs. N=866

- Regression analysis on the base salaries (not including bonuses, overtime, or additional compensation for summertime teaching or research) of full-time employed AAS members estimates the average increase in salary due to a given variable compared to average salaries in the absence of that variable. The variables dealing with employer type are compared to the salaries of those employed at universities or 4-year colleges. We controlled for employer type, postdoc experience, sex, and years since PhD.
- The regression equation constant (or intercept) was just under \$76,000. This represents the theoretical average salary in the absence of all variables (i.e. the average salary of all women working at universities with zero years of experience since earning their PhDs who did not take postdocs).
- For illustrative purposes, we can use this model to predict the average salary of a person who earned their PhD 10 years ago and works at a government lab:
 $75,644 + 10 \text{ years} \times 1,101 + 15,976 \text{ (gov't lab)} = \$102,630$
 - It is worth noting that this represents the average salary of a group of AAS members; salaries for individuals within the group will vary above and below this average.
- There was strong statistical evidence ($\alpha < .01$) of the effect of working at a government lab, a research institute, or in industry and the effect due to the number of years since respondents earned their highest degrees.
- The median salary for AAS members employed at university and four-year colleges was \$106,500. However, those who received their degrees before 2000 had a median salary of \$132,000, while those who received their degrees after 2000 had a median salary of \$84,000.
- Current postdocs had a median salary of \$63,500.
- In the previous two versions of the survey, we found a statistically significant difference in salary by gender, with women earning less than men on average.

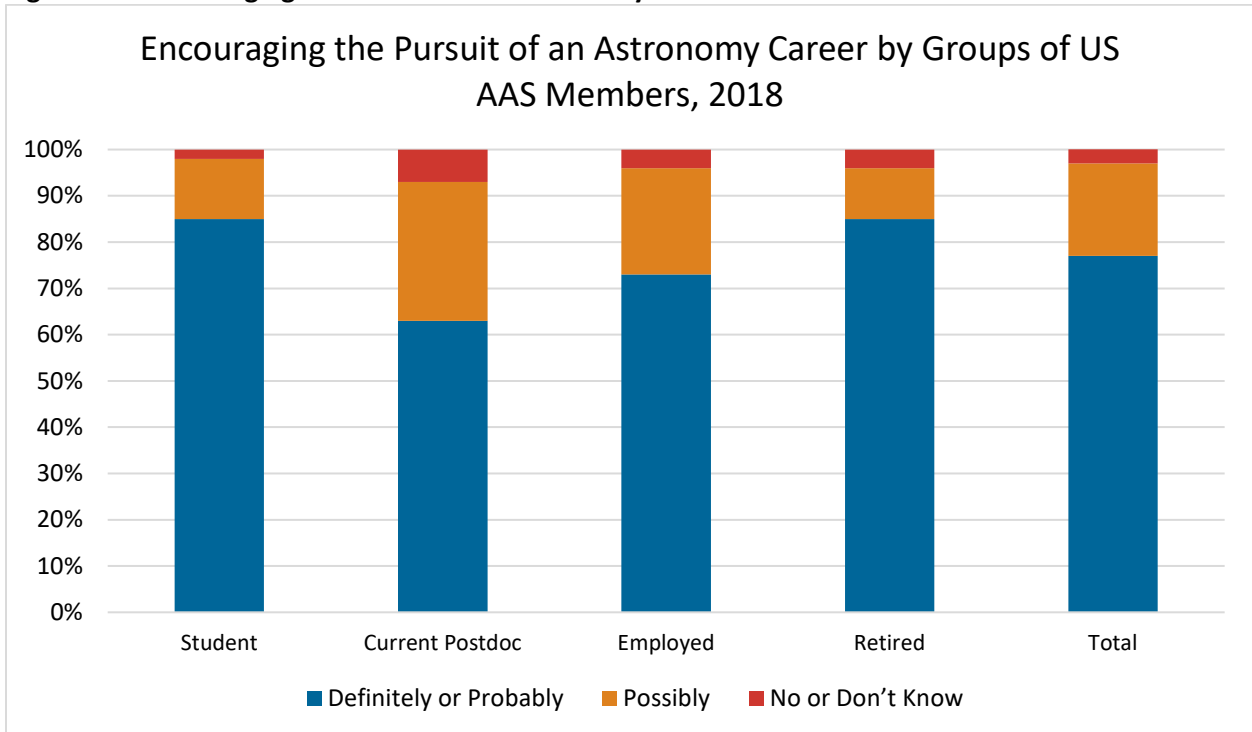
Table 23 – Encouraging the Pursuit of an Astronomy Career

Encouraging the Pursuit of an Astronomy Career By Groups of US AAS Members, 2018					
	Student %	Current Postdoc %	Employed %	Retired %	Total %
Definitely or Probably	85	63	73	85	77
Possibly	13	30	23	11	20
No or Don't Know	2	7	4	4	3
Total	434	171	1219	193	1962

Employed includes only full-time employed.

- Overall, AAS members responded in the affirmative when asked “Would you encourage interested and talented young people to pursue a career in astronomy?”
- As was true in the previous surveys, AAS members in postdoc positions were less likely to encourage the pursuit of an astronomy career than any other group. Members who were students or retired were the most likely to suggest pursuit of an astronomy career.

Figure 13 – Encouraging the Pursuit of an Astronomy Career



AAS MEMBERS – Demographics and Family

Several tables describing demographic and family-related issues are presented by sex and age group. Age groups are split between those born prior to 1985 (68% of respondents) and those born in 1980 or after (32% of respondents). We chose 1985 to separate early career members and postdocs from more senior members.

Table 24 – Gender

Gender of US AAS Members by Age Group, 2018			
	Born before 1985	Born 1985 or after	Total
	%	%	%
Men	74	52	67
Women	24	46	31
Other	-	2	1
Prefer not to respond	2	1	2
Total	1295	607	1902

- The proportion of women respondents who were born in 1985 or after (46%) is larger than those born before 1985 (24%). This aligns with the recent historical increase in the participation of women in the field of astronomy and is also reflected in the increasing percentage of women among AAS members.
- The number of AAS members identifying as transgendered was not large enough to report without violating confidentiality.

Figure 14 – Gender

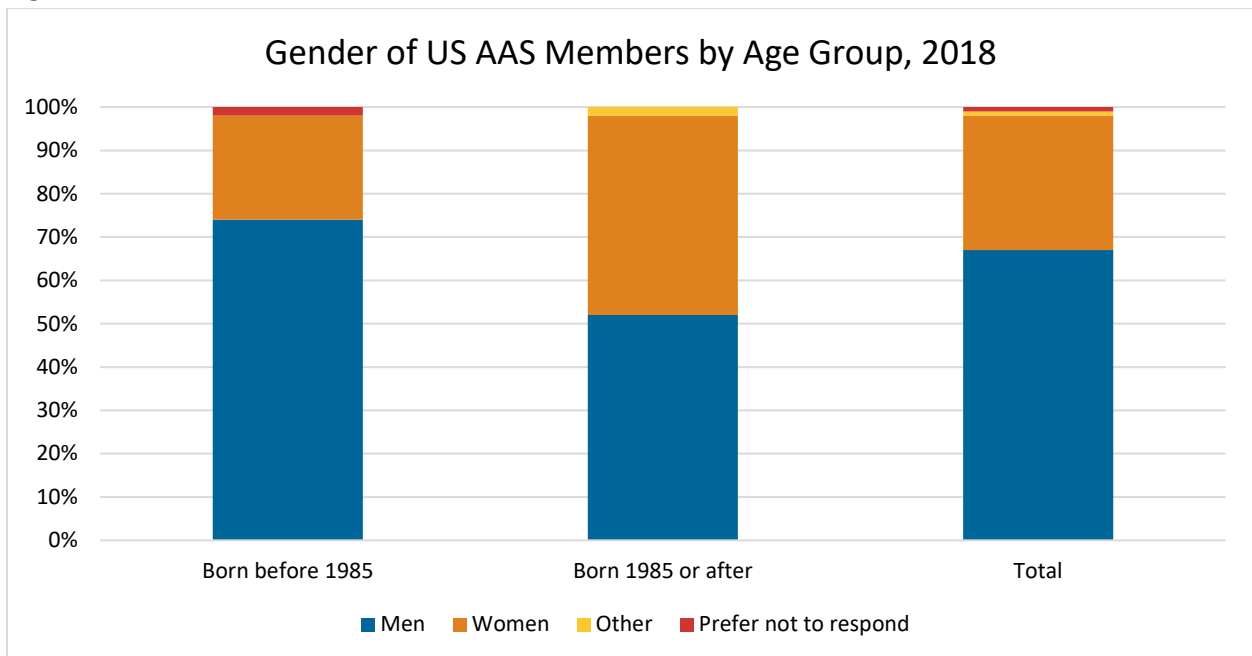


Table 25 – Marriage or Partnership Status

Marriage or Partnership Status of US AAS Members by Gender and Age Group, 2018			
Has been married or in a similar relationship	Born before 1985 %	Born 1985 or after %	Total %
Men	92	35	78
Women	85	38	62
Total	1263	594	1857

- More men than women are married or in similar relationships. The difference between men and women is especially pronounced in the more senior cohort.
- The older cohort of respondents had substantially higher rates of marriage than the younger cohort.

Figure 15 – Marriage or Partnership Status

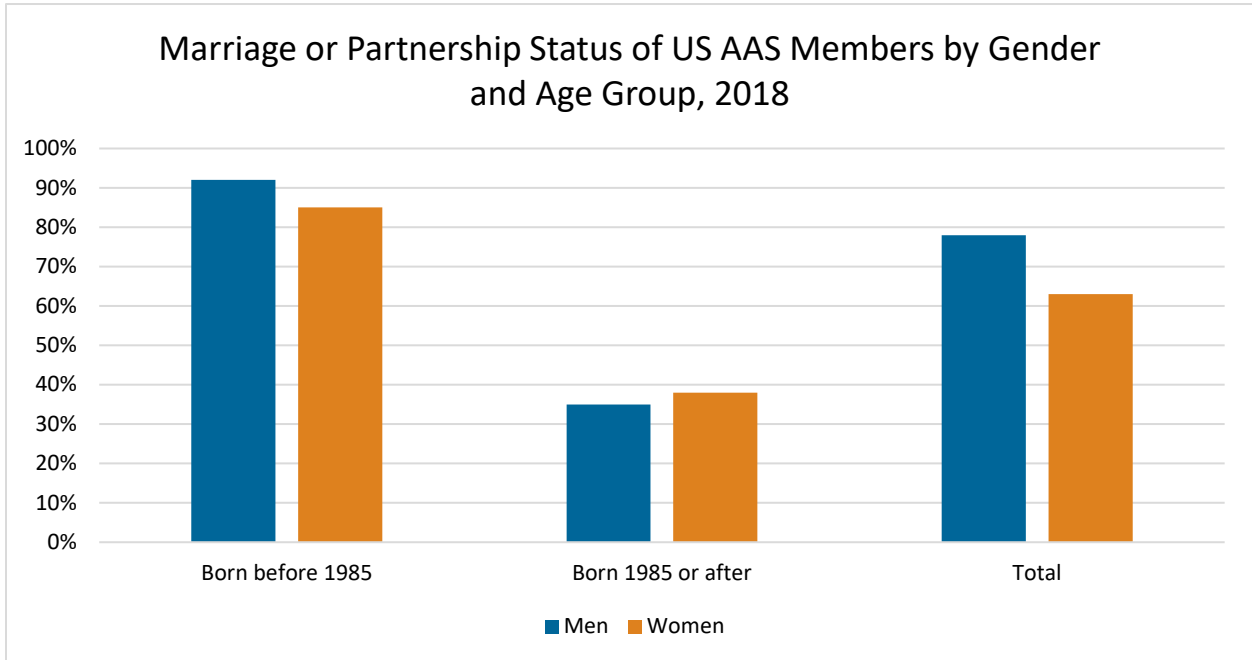


Table 26 – Members with Children

US AAS Members with Children by Gender and Age Group, 2018			
Has children	Born before 1985 %	Born 1985 or after %	Total %
Men	70	5	54
Women	56	6	32
Total	1270	586	1856

- In the older cohort, fewer women respondents had children than men.
- Only 3% of respondents indicated that they had used AAS childcare facilities at national AAS meetings. However, 18% of respondents indicated that they had not attended a national AAS meeting since becoming a parent.

Figure 16 – Members with Children

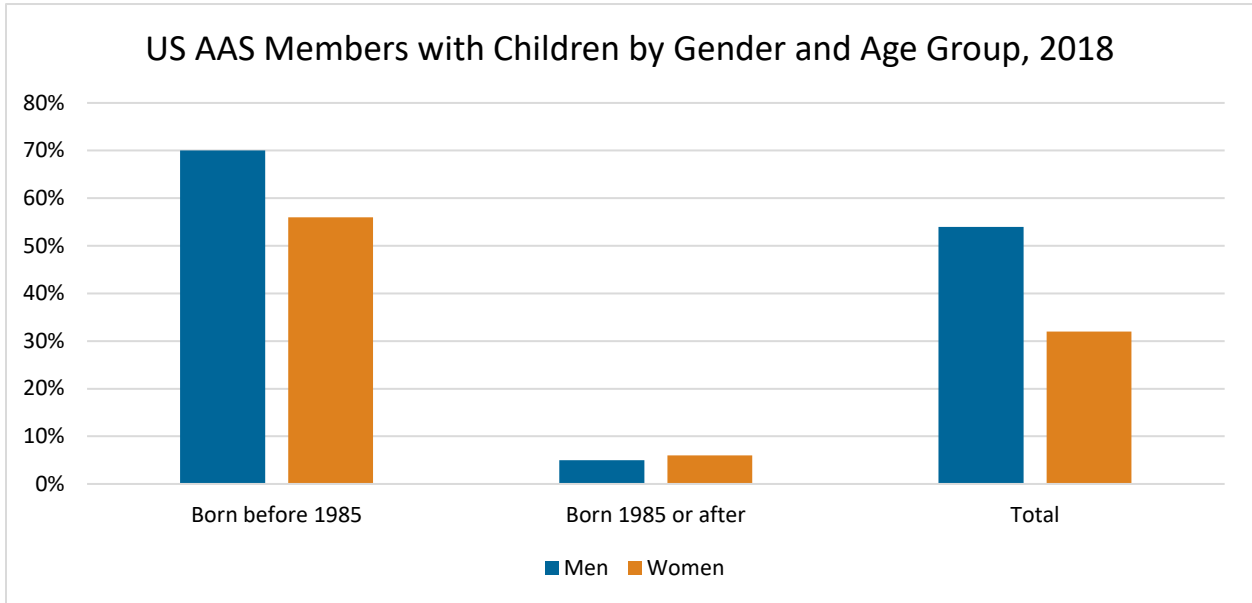


Table 27 - Relocated with a Spouse or Partner

Relocated with a Spouse or Partner US AAS Members, 2018			
	Women %	Men %	Total %
Born before 1985			
Yes	38	13	19
No	50	80	73
N/A	12	7	8
Born 1985 or after			
Yes	10	10	10
No	54	54	54
N/A	36	36	36

- Overall, eighty-nine percent of those who selected “N/A” when asked “Have you ever relocated because your spouse or partner relocated?” have never been married or in a similar relationship.
- Overall, 16% of AAS members reported relocating. Women in the older cohort are much more likely than men in this cohort to have relocated for a spouse or partner. There is no difference between men and women in the younger cohort.
- The majority (57%) of respondents indicated that they had never limited their career options because of someone else.
 - Women respondents indicated they had limited their career options at a higher rate than men (52% vs 39%).

Figure 17 – Relocated with a Spouse or Partner

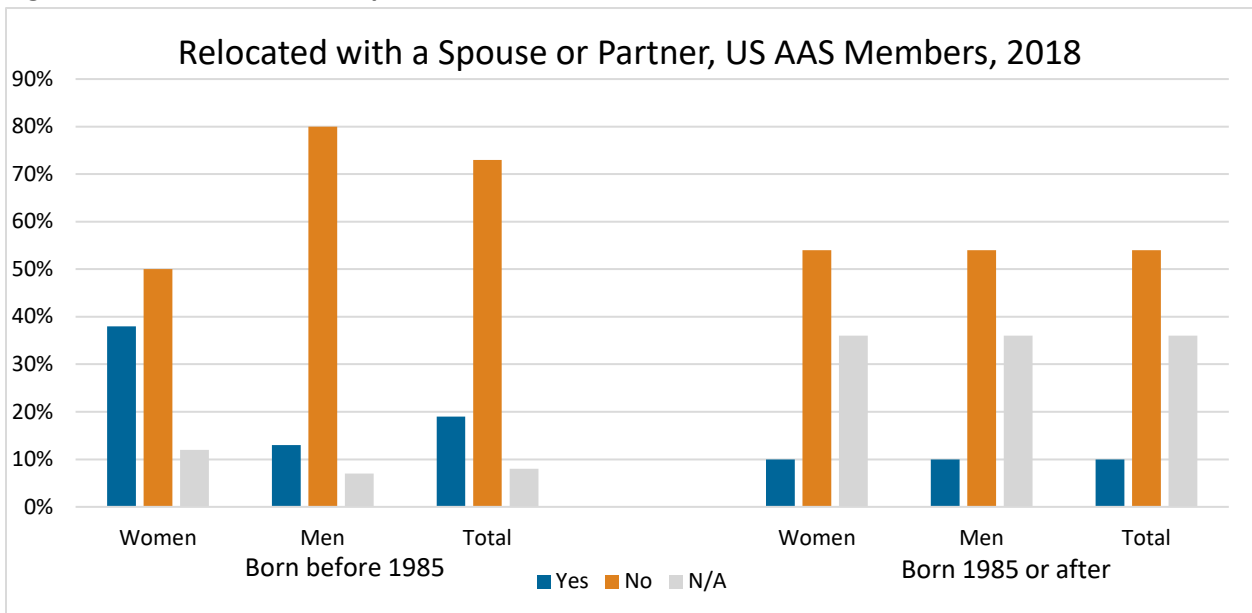


Table 28 – Disabilities

Disabilities Among US AAS Members, 2018		
Disability	%	N
I have a mental illness	7	123
I have an autoimmune or pain disorder, or other chronic condition	4	80
I am deaf or hard-of-hearing	4	71
I have disabling allergies, asthma, or other environment sensitivities	2	35
I am neuroatypical	2	33
I have difficulty seeing even when wearing glasses	1	25
I have serious difficulty standing, walking, or climbing stairs	1	24
I have a cognitive or learning disability	1	24
Other disability	2	40
None of the above	82	1487
Prefer not to respond	4	75

Percentages add to more than 100% because respondents were asked to check all that apply

- Most AAS members did not report any disabilities. For this survey, there were more disability options given than in the first two surveys.

Table 29 – Accessibility Aids

Accessibility Aids Used by US AAS Members, 2018		
Disability	%	N
Hearing aids, headphones, and other audio devices	4	83
Dietary accommodation related to health or disability	3	64
Environmental adjustments	3	59
Quiet spaces	3	58
Closed-captioning	3	48
Mobility aids	1	15
Other accessibility aid	1	19
None of the above	85	1602
Prefer not to respond	2	47

Percentages add to more than 100% because respondents were asked to check all that apply

Categories with <10 respondents are not included.

- The majority of US AAS members did not use accessibility aids.

Table 30 – Ethnicity

Ethnicity of US AAS Members, 2018		
Ethnicity	%	N
White	82	1586
Asian or Asian American	9	181
Hispanic or Latino	5	91
Black or African American	2	30
American Indian or Alaska Native	1	18
Other	2	43
Prefer not to respond	4	78

Sum of percentages exceeds 100 because respondents were asked to check all that apply.
Categories with <10 respondents are not included.

- 3% of respondents checked more than 1 ethnicity.

Table 31 - Sexual Orientation

Sexual Orientation of US AAS Members, 2018		
Orientation	%	N
Heterosexual or straight	85	1631
Gay or lesbian	3	56
Bisexual	4	79
Other	2	47
Prefer not to respond	5	102

APPENDIX: Challenges facing the field of astronomy

Respondents were asked “What do you view as the most significant challenge the field of astronomy is facing in the areas of employment and/or career development?” The vast majority (N=1646) of respondents provided an answer to this question.

- Many respondents mentioned the two-body problem (having a significant other and one having to sacrifice aspects of a career in order to support the other), and how the current pipeline for astronomers is punishing for those trying to start a family or settle down. The necessity for multiple postdocs was often cited in these comments as a chief issue.
- Respondents also noted the difficulty in obtaining funding as a serious challenge facing the field. There were specific mentions about the NSF no longer looking to fund evenly across all fields of astronomy, and the adverse effects of this. Funding is felt to now be focused on a few large projects.
- There were many comments about the number of PhD students outpacing the number of open positions in academia. Many feel that advisors are often only geared to guide students into academic careers, where options and positions are very limited, and do not indicate that industry is also a viable career path. There were also general concerns about being able to find employment of any sort.
- Discrimination remains a concern for those in the field of astronomy. There were numerous mentions of a lack of diversity at the top of the field, which trickles down all the way to the bottom.