



Women participation in Latin America Astronomy

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Figure from Women in Astronomy Working Group Magazine 2021

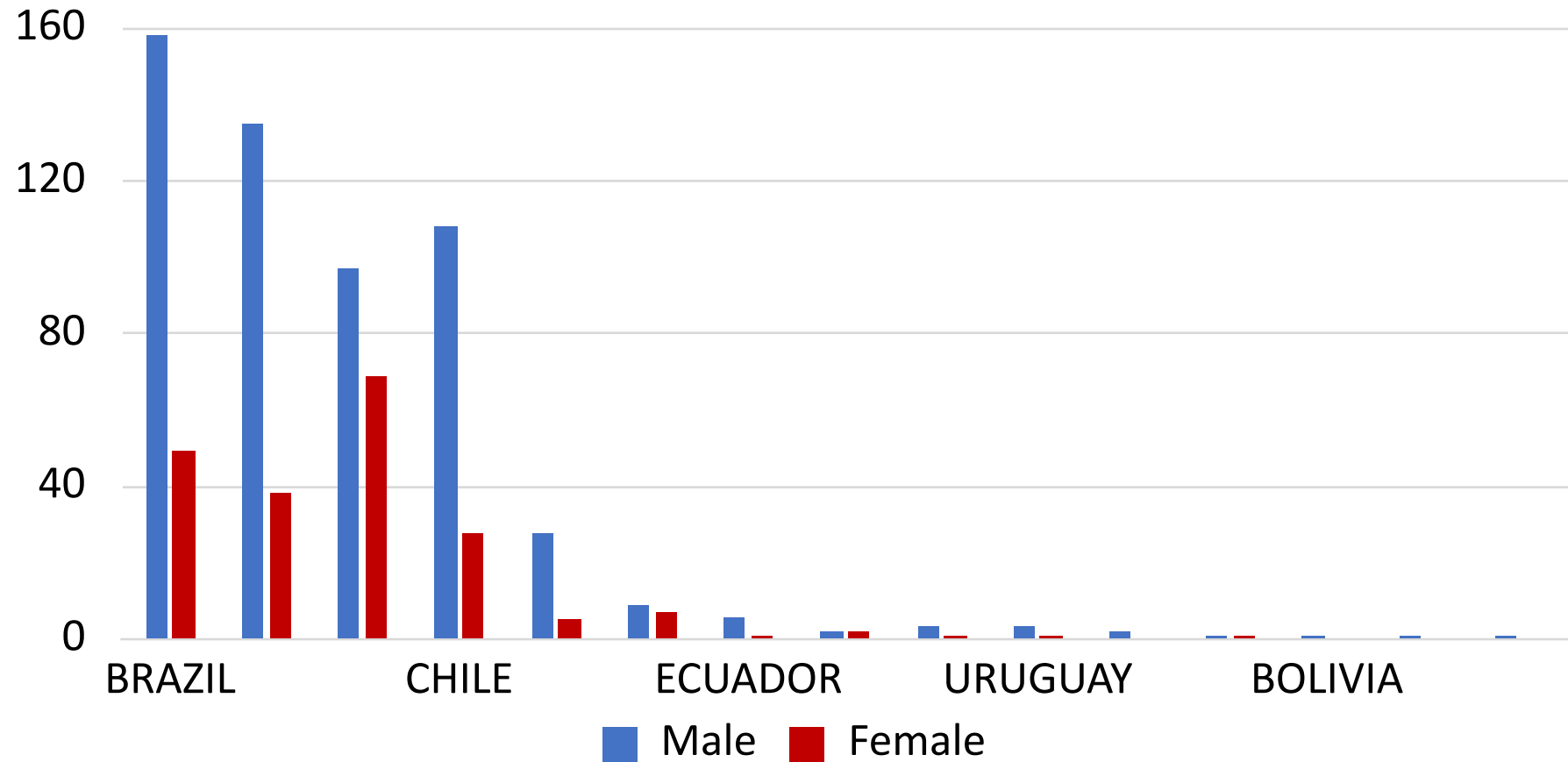


IAU Individual and Junior Members

National Members	MALE	FEMALE	TOTAL	% MEN	% WOMEN
ARGENTINA	97	69	166	58	41
BOLIVIA	1	0	1	100	0
BRAZIL	158	49	207	76	24
CHILE	108	28	136	79	20
COLOMBIA	28	5	33	85	15
COSTA RICA	2	0	2	100	0
CUBA	1	0	1	100	0
ECUADOR	6	1	7	86	14
GUATEMALA	1	0	1	100	0
HONDURAS	2	2	4	50	50
MEXICO	135	38	173	78	22
PANAMA	3	1	4	75	25
PERU	1	1	2	50	50
URUGUAY	3	1	4	75	25
VENEZUELA	9	7	16	56	44
TOTAL	555	202	757	73	27

IAU

IAU Individual and Junior members

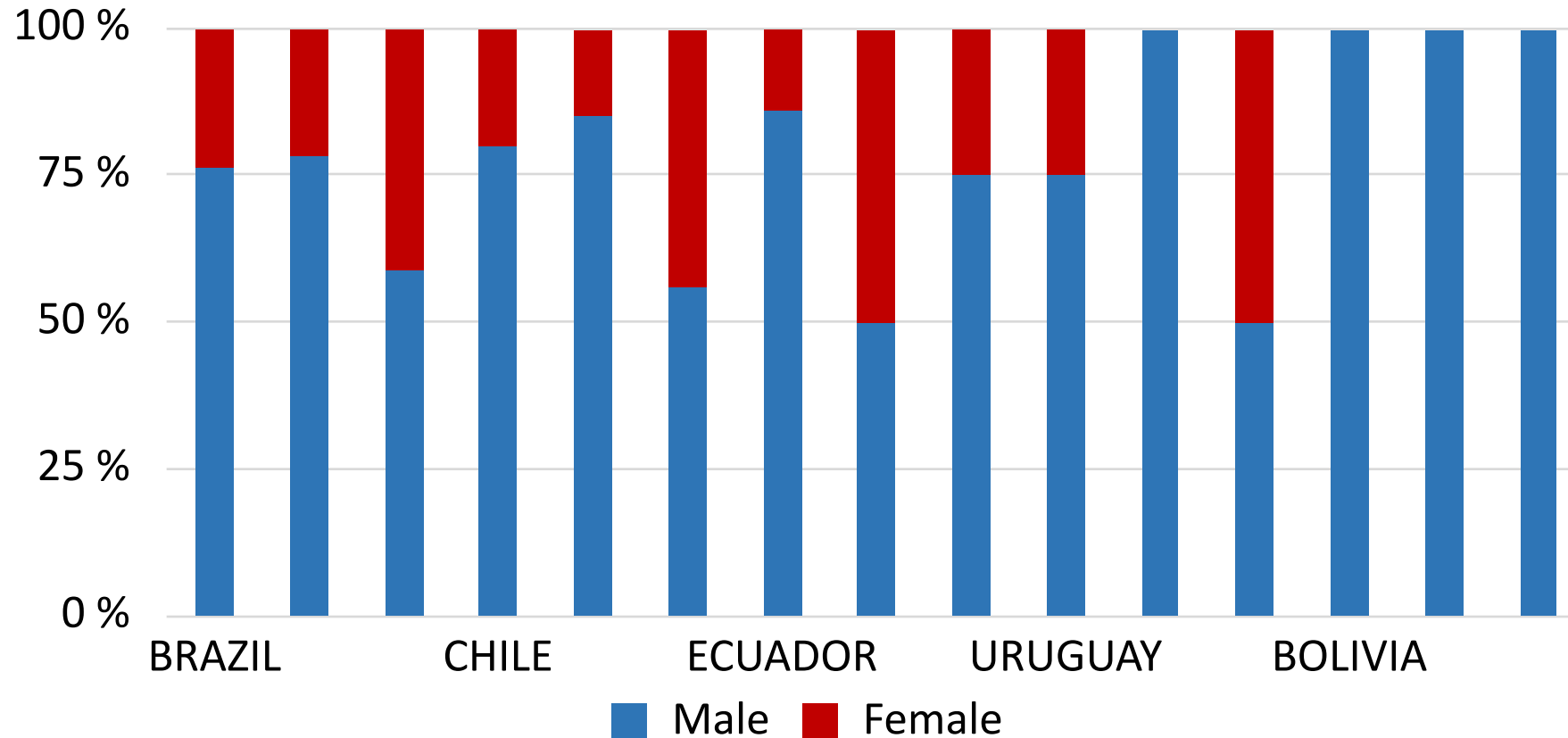


Total Latin America: Males 555, Females 202

Total IAU: Males 9752, Females 2721

IAU

Percentage of Individual and Junior IAU members



Overall Latin America: Male 73%, Female 27%

IAU: Male 78%, Female 22%

Argentina

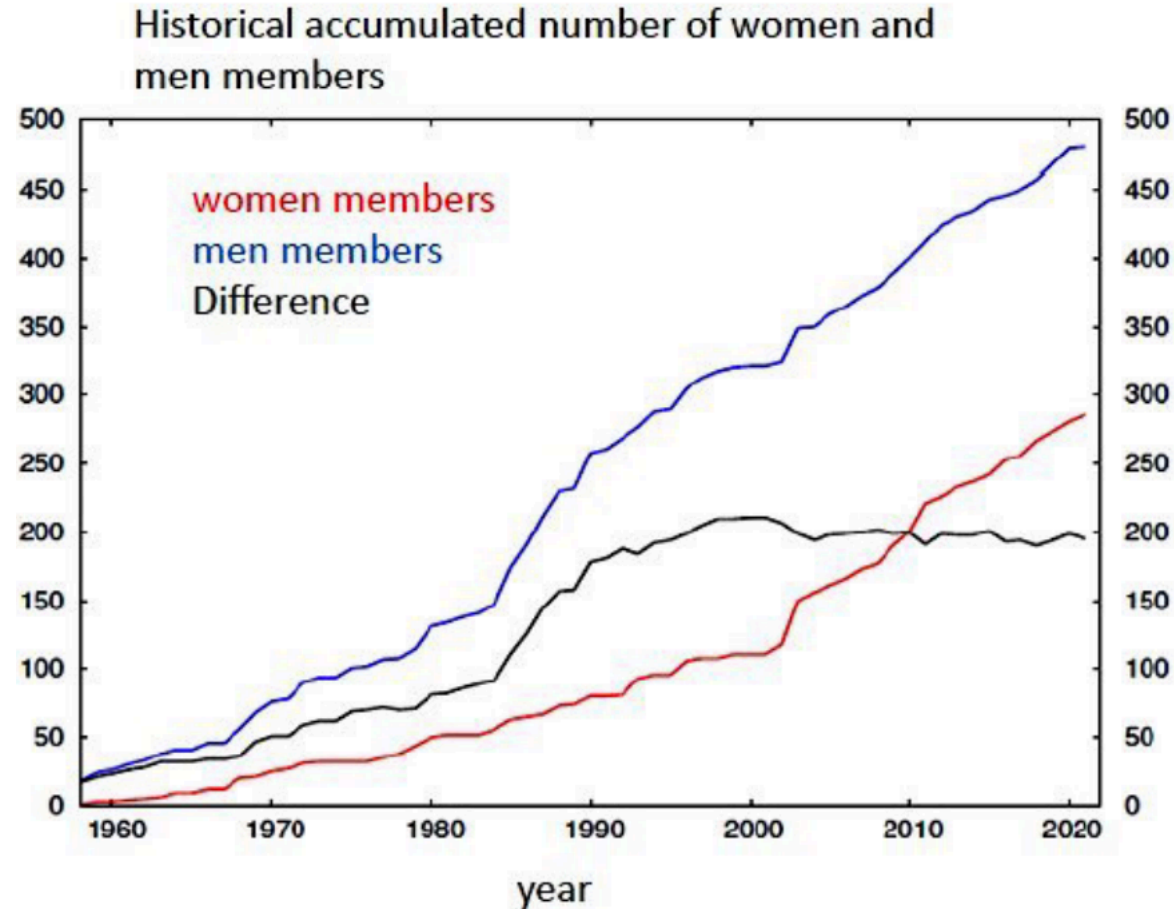


Figure 17. Historical accumulation of members as a function of time.

Argentina

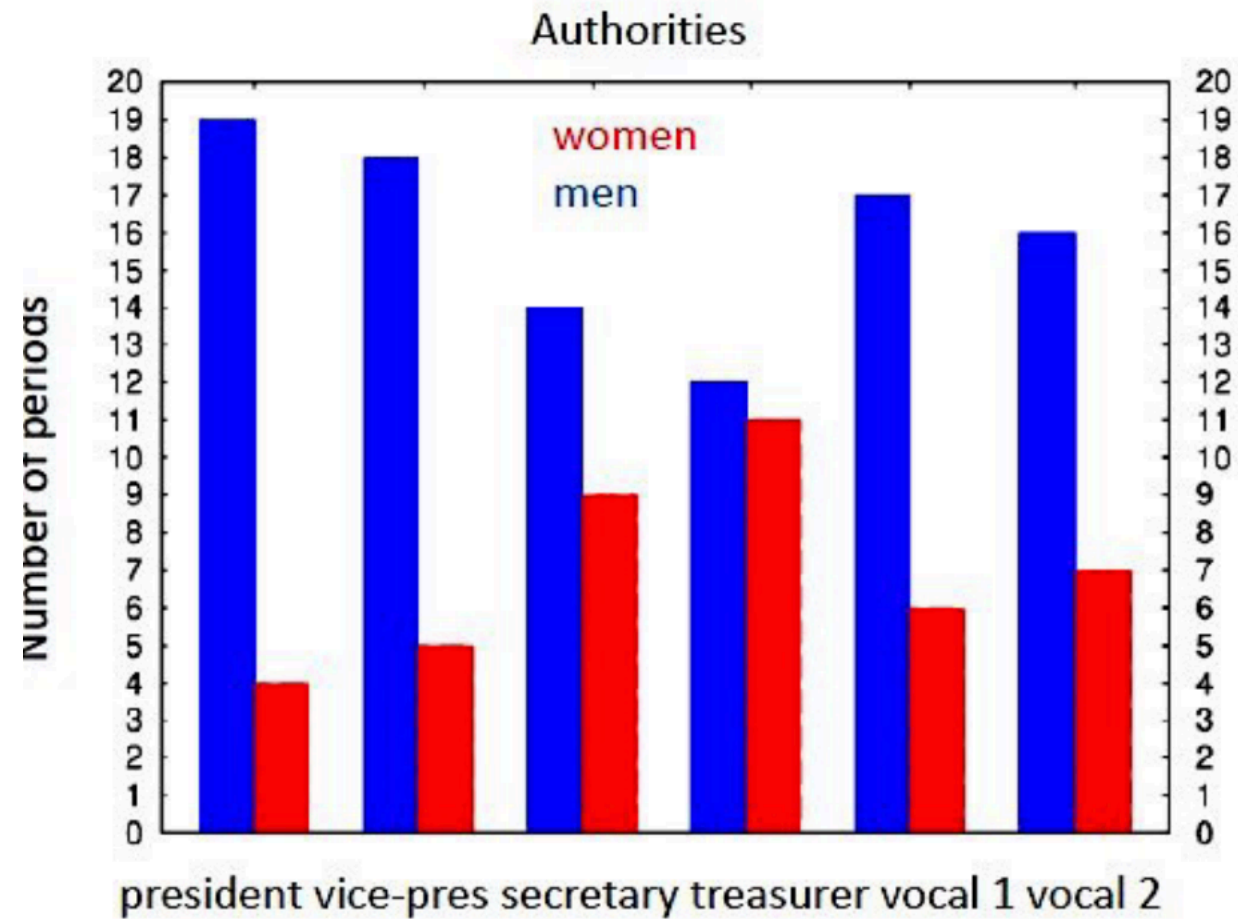


Figure 18. Number of periods during which female and male members held management positions in the AAA

Argentina

postulated and awarded scholarships according to the applicant gender

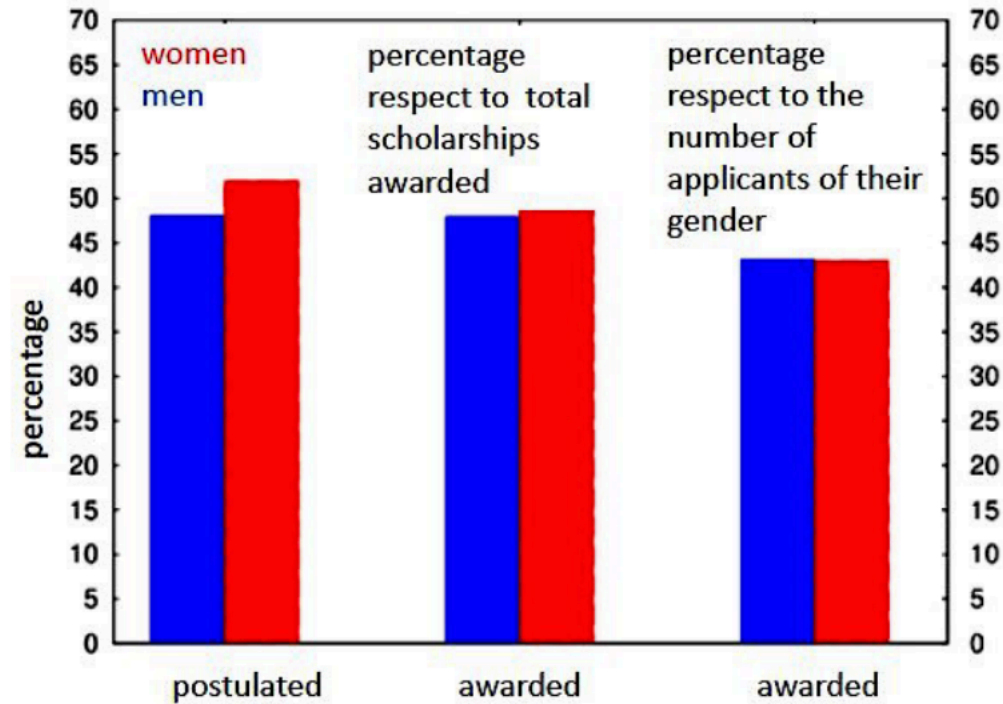


Figure 19. Application and granting of type A, B and stimulus scholarships. Analysis according to the applicant's gender.

Argentina

scholarships postulated and awarded according to the gender of the director

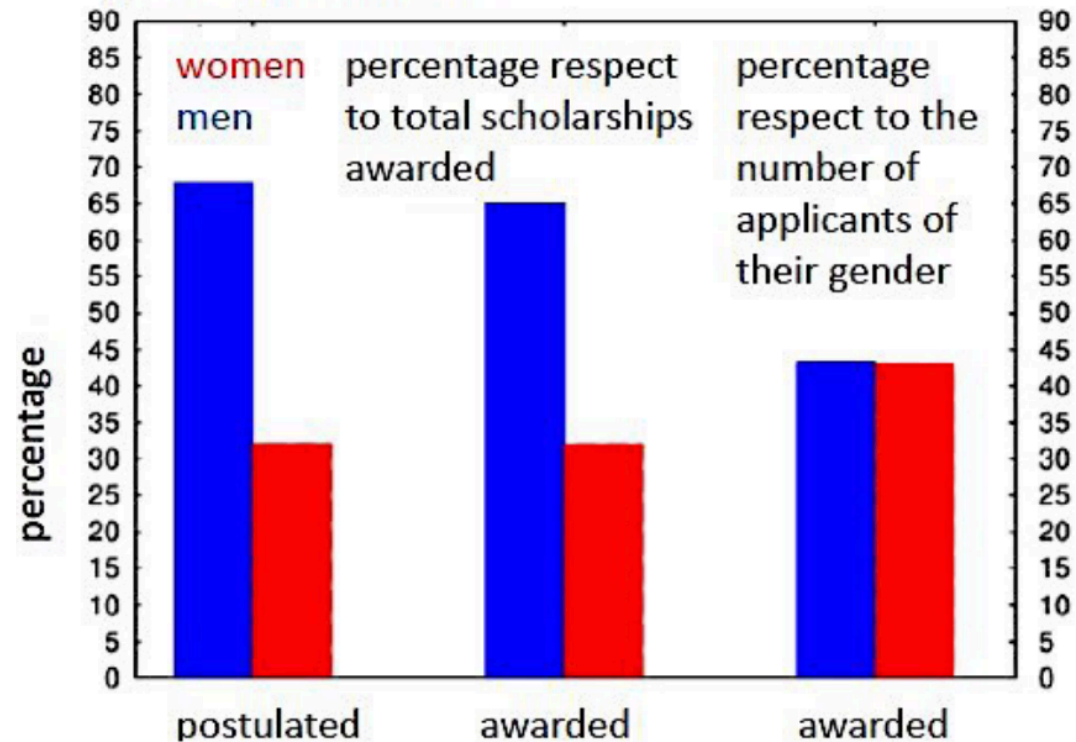


Figure 20. Application and granting of type A, B and stimulus scholarships. Analysis by gender of the director.

Argentina

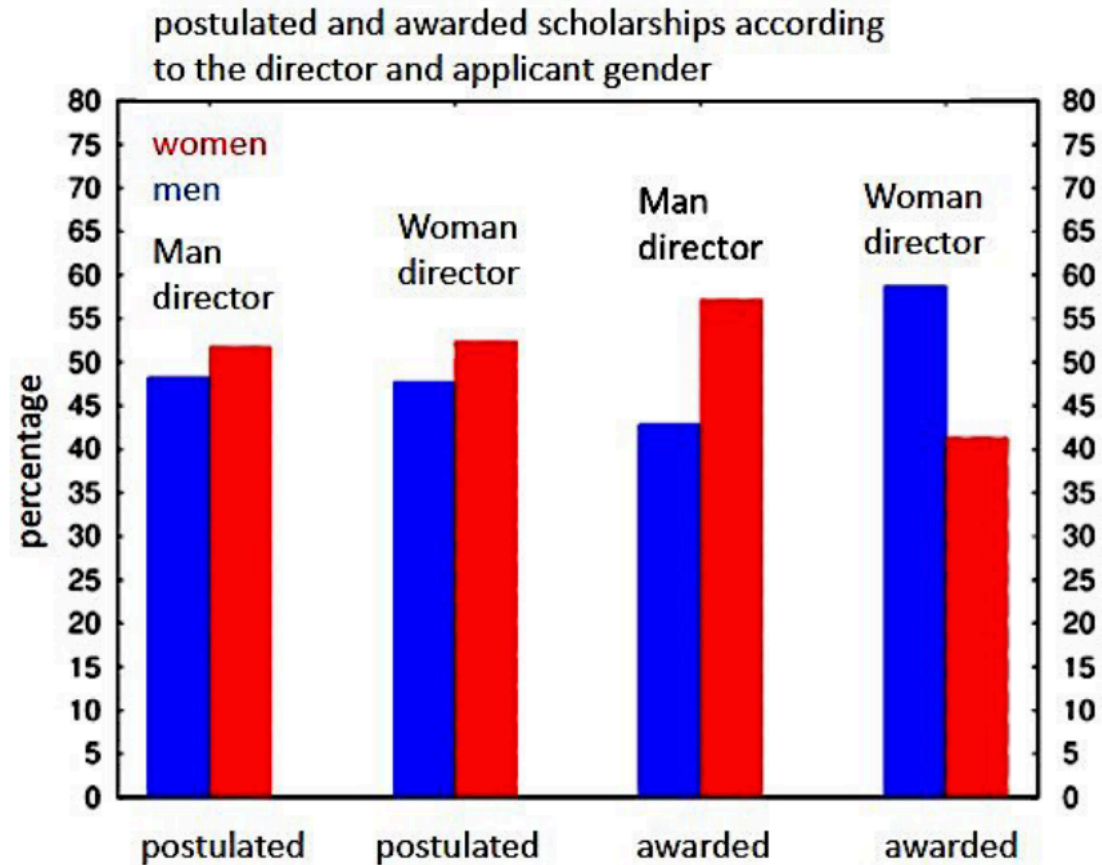


Figure 21. Application and granting of type A, B and stimulus scholarships. Analysis by gender of the director and the applicant.

Argentina

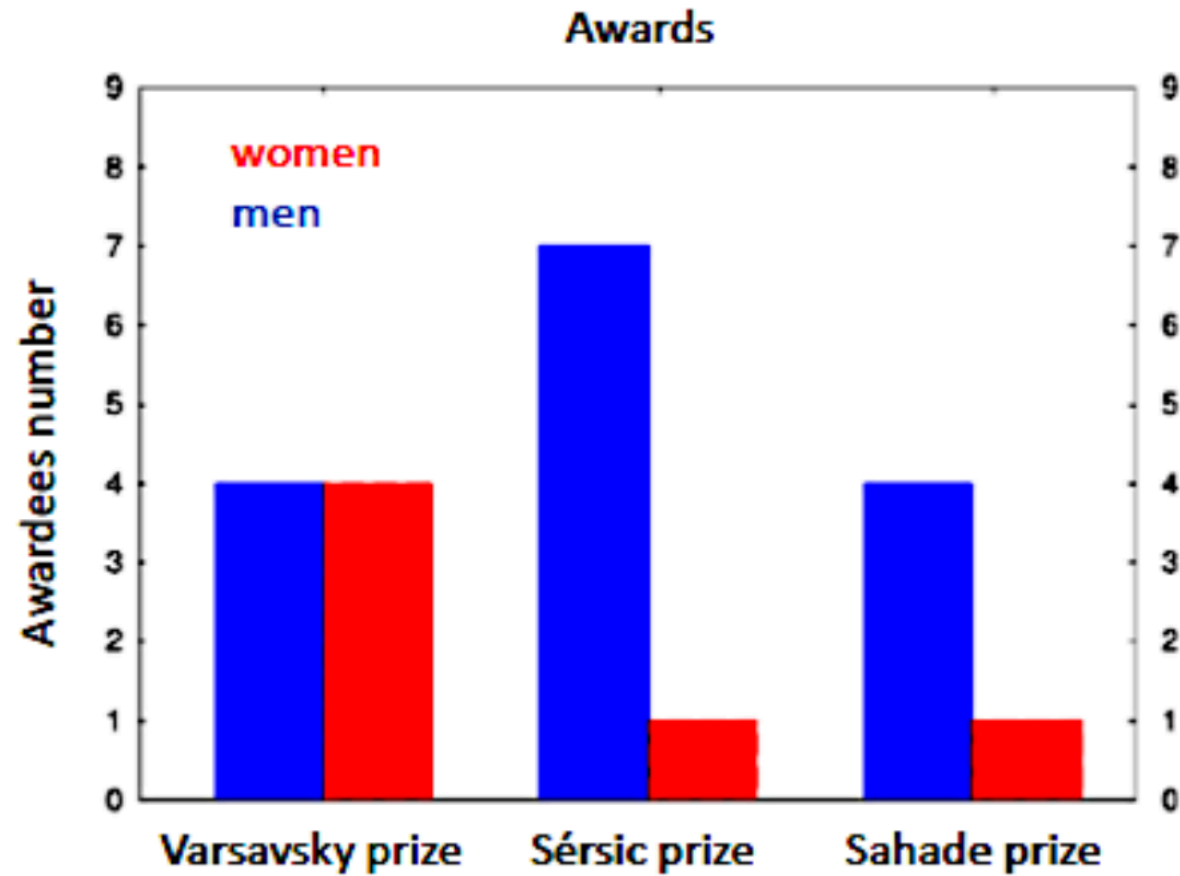


Figure 22. Awards given by AAA

Argentina

The men/woman disparity has diminished in recent years

There is no disparity in scholarships

For historical reasons there is a significant disparity in directors of AAA scholarships

There is no disparity in Varsavsky Prize recipients

Men have preferentially obtained the highest prizes

There is a marked asymmetry in power positions (in favor of men)

Brazil

1) Institutes involved: 16 + 42 (smaller)

2) Permanent positions in public institutions

Male: 203 Female: 74 ==> Total = 277; 26,7% female

3) Permanent positions in private institutions

Male: 26 Female: 8 ==> Total = 32; 23,5% female

4) Pos-doc & Visiting professors

Male: 44 Female: 21 ==> Total = 65; 32,3% female

5) PhD Students

Male: 124 Female: 67 ==> Total = 191; 35,1% female

6) Master Students

Male: 84 Female: 60 ==> Total = 144; 44% female

7) Graduate Students

Male: 132 Female: 132 ==> Total = 164; 50% female

Brazil

For comparison in Vienna, in 2018, the numbers for the above items were:

1) 16 + 38

2) Male: 188 Female: 53 ==> Total = 241, 28,2% female

3) Male: 23 Female: 7 ==> Total = 30, 23,3% female

4) Male: 79 Female: 35 ==> Total = 114, 30,7% female

5) Male: 97 Female: 61 ==> Total = 158, 38,6% female

6) Male; 47 Female: 39 ==> Total = 86, 45,3% female

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For comparison in Vienna, in 2018, the numbers for the above items were:

1) 16 + 38

2) Male: 188 Female: 53 ==> Total = 241, 28,2% female (203, 74, 277, 26,7%)

3) Male: 23 Female: 7 ==> Total = 30, 23,3% female (26, 8, 32, 23,3%)

4) Male: 79 Female: 35 ==> Total = 114, 30,7% female (44, 21, 65, 32,3%)

5) Male: 97 Female: 61 ==> Total = 158, 38,6% female (124, 67, 191, 35,1%)

6) Male; 47 Female: 39 ==> Total = 86, 45,3% female (84, 60, 144, 44%)

↑
Today

Brazil

Leadership:

The "Productivity in Research" fellowship rewards staff professors/researchers in 5 categories:

PQ-2, 1D, 1C, 1B, 1A and SR.
PQ-2 is the lowest, top is 1A.

The SR is a category for Senior Researchers, no longer active, but have been 1B or 1A for at least 10 years.

Brazil

Presently:

- Total: 108 with 23% female
- PQ-2: total 64 with 20% female
- 1D: total 12 with 16% female
- 1C: total 13 with 23% female
- 1B: total 5 with 20% female
- 1A: total 11 with 45% female
- SR: 3 with 33% female

Brazil

- For comparison in Vienna, in 2018, the numbers for the above items were:
 - Total: 115 23% female.
 - PQ2: total 84 17% female.
 - 1D: total 18 22% female.
 - 1C: total 12 25% female.
 - 1B: total 10 30% female.
 - 1A: total 16 33% female.
 - SR:

Brazil

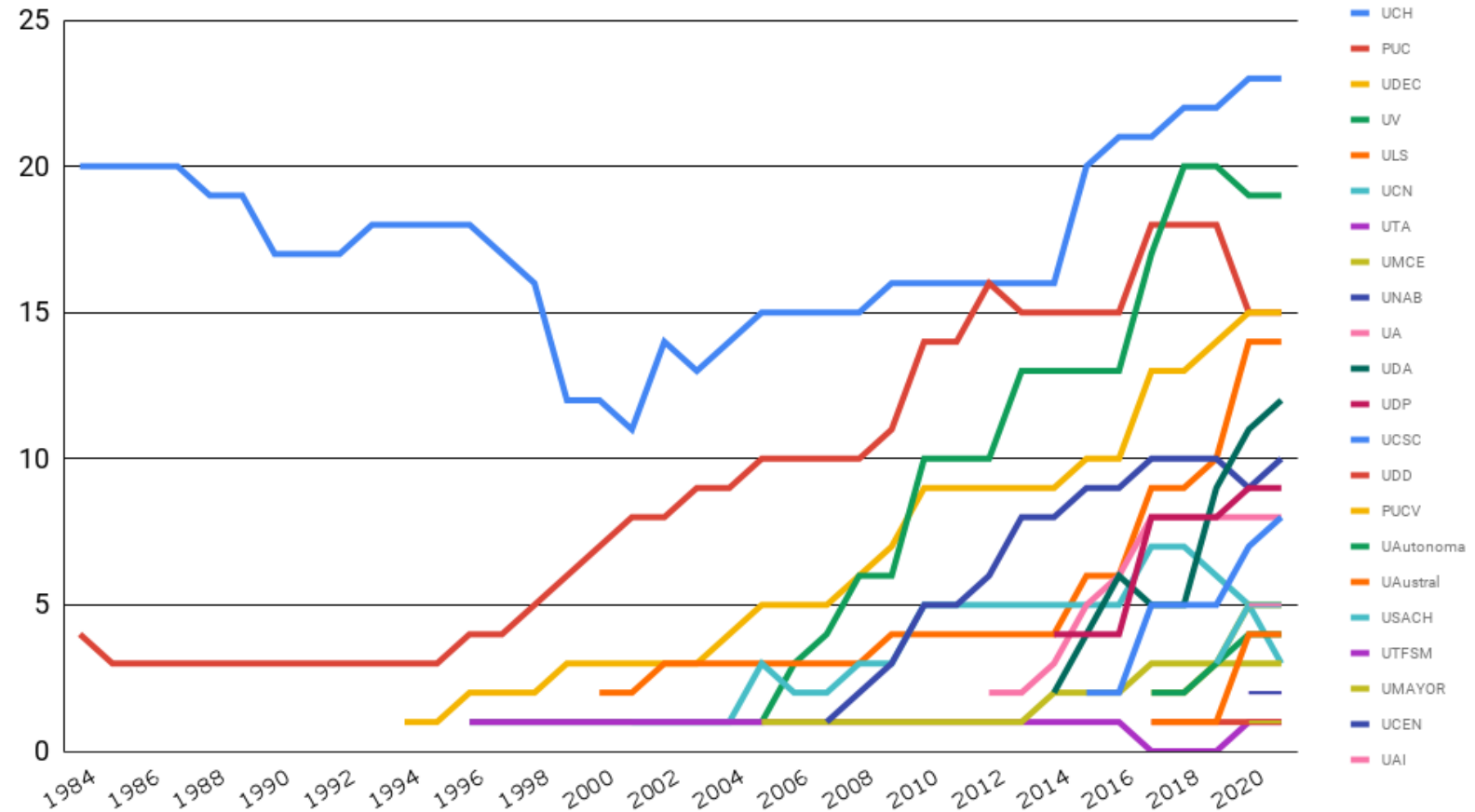
- For comparison in Vienna, in 2018, the numbers for the above items were:
 - Total: 115 23% female. (108, 23%)
 - PQ2: total 84 17% female. (64, 20%)
 - 1D: total 18 22% female. (12, 16%)
 - 1C: total 12 25% female. (13, 23%)
 - 1B: total 10 30% female. (5, 20%)
 - 1A: total 16 33% female. (11, 45%)
 - SR: (3, 33%)

Conclusion. Not many changes have taken place in 4 years

Chile

Number of Astrophysicists per University (1984-2021)

Número de Académicos de Astrofísica en Chile por Universidad

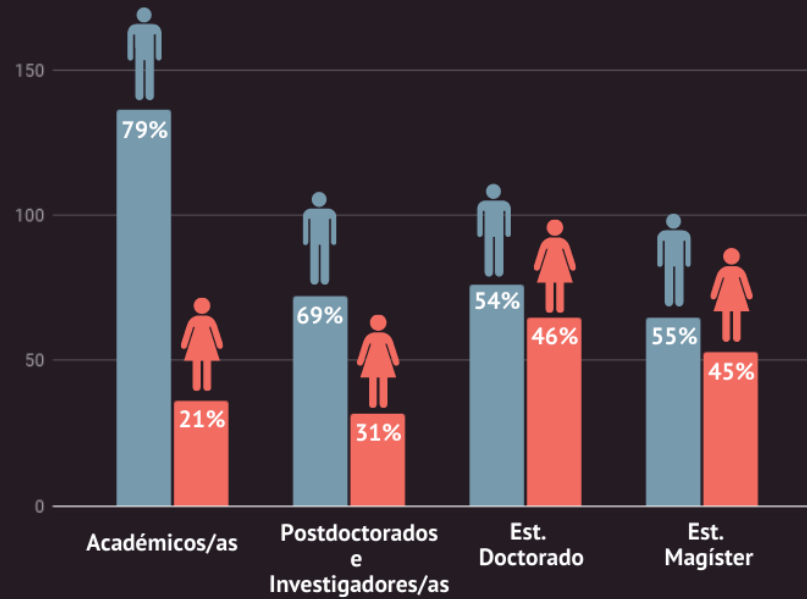


Chile

Full positions
Post docs
PhD Students
MSc Students

ESTADÍSTICAS DE GÉNERO 2021

DISTRIBUCIÓN DE GÉNERO POR
NIVEL PROFESIONAL

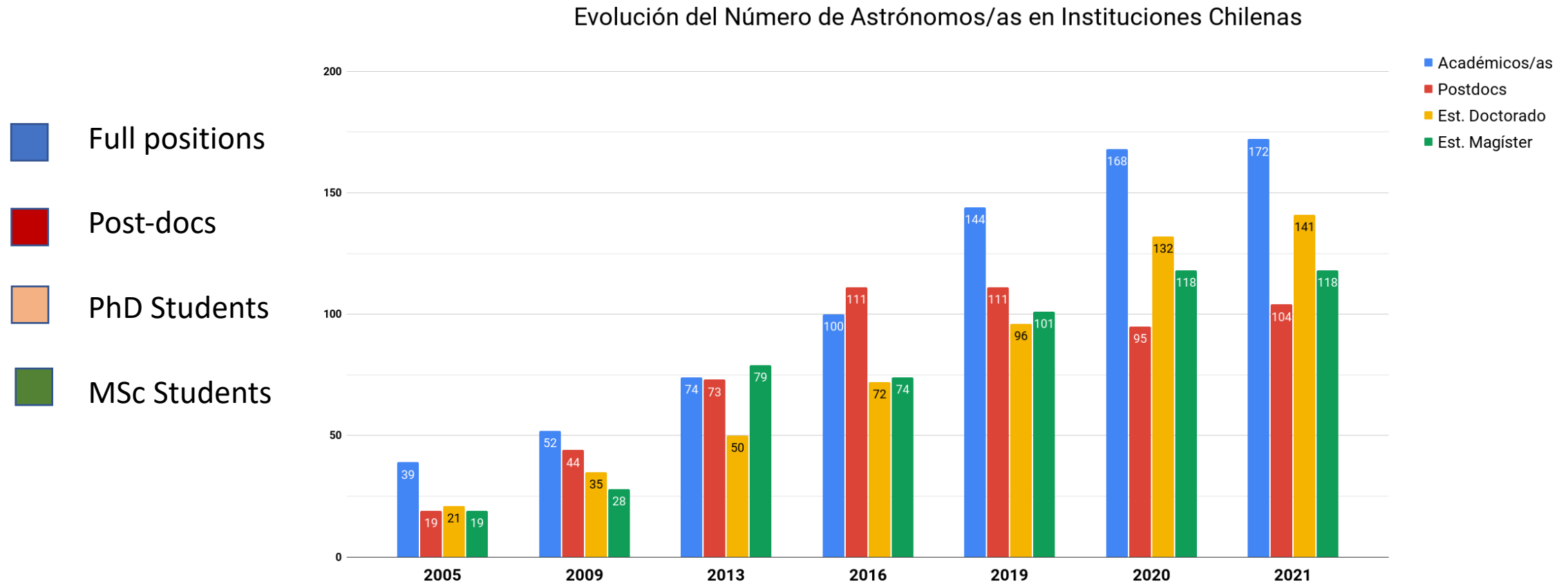


FUENTE: SOCHIAS, 2021
PROFESIONALES CON ACCESO A TIEMPO DE OBSERVACIÓN
CHILENO (ABRIL 2021).



Chile

Growth of Astronomers in Chilean Institutions (2005-2021)



Chile

Growth of number of Chilean Institutions with Astrophysicists (1984-2021)



Mexico

From the different web sites of the institutions I find that there are **20%** of women

Aretxaga in a demographic study of astronomers in Mexico carried out in 2014 finds that *"Of the 234 researcher-astronomers, 52 are women (22%), of which 73% are members or candidates of the SNI."*

Another way to obtain an approximate fraction of women is from the so-called "Mexican Astrophysics Network" where astronomical news of interest is disseminated. There the proportion of women is **29%**.

Mexico

Women have been present in governing bodies of scientific organizations:

- Mexican Physical Society,
- Mexican Academy of Sciences,
- International Astronomical Union,
- American Astronomical Society
- Astronomical Society of the Pacific.

They have been founders and editors of **the Revista Mexicana de Astronomía y Astrofísica** and of the **Revista Mexicana de Astronomía y Astrofísica Serie de Conferencias**.

Mexico

They have been recognized by the community by having named after them:

- libraries,
- planetariums,
- laboratories
- a mathematics contest
- an insect

Mexico

They have won important awards:

- UNESCO Kalinga Prize,
- the Mexican Academy of Sciences,
- the National Prize for Sciences and Arts,
- the L'Oreal UNESCO Prize for Scientific Women of Latin America.
- Hans Bethe Prize of American Physical Society

Mexico

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They have received Honorary Degrees from:

- Universidad Nacional Autónoma de México
- Instituto Nacional de Astrofísica, Óptica y Electrónica
- Ben Gurion University of the Negev in Israel

Are members of very prestigious organizations:

- El Colegio Nacional
- Academia Mexicana de la Lengua
- Seminario de Cultura Mexicana

Venezuela

Active in Astronomy and studied in the country (from BSc).

Women: 26. Men : 30

Presently working in Venezuela:

Women: 2. Men: 1

Venezuela

Prizes and significant positions by Women:

- 2 as VPs of CIDA
- 3 premio Lorenzo Mendoza Fleury prize
- 1 head of science in User support group at NOIRLab
- 1 head of Documentation of JUICE/SWI Instrument (since 2013).
- VP of IAU Commission Organising Committee F2, Exoplanets and the Solar System (2021-2024).
- Head editor of planetary science of Frontiers in Astronomy and Space Sciences (2020-).
- 1 State Award for Science and Technology
- 1 Helen Dodson Prince Collegiate Professor
- 1 Honorable Mention for Outstanding PhD Thesis
- 1 Dirk Brouwer Prize for PhD Thesis

Uruguay

Universidad de la República and CURE

	Men	Women
Emeritus	1	0
Full Professors	2	0
Associate professors	2	2
Assistant professors	1	0
Research assistants	5	2
PhD Students	5	4

Conclusions

Women astronomers in our countries are well recognized

They have made great achievements

But ... there is still a long way to go

Mostly, we need to impact the young students to follow STEM careers

¡Gracias!



Figure from Women in Astronomy Working Group Magazine 2021

