ASTRO 3D Hiring Guidelines 50/50: if not, why not?

ASTRO 3D Task Force for Hiring Guidelines:
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The following recommendations are in addition to the [ASTRO 3D Recruitment Policy from September 2018](#) AND the hiring policies of the institution. Please follow the recommendations/guideline that is more inclusive/diverse if more than one policy applies.

Phase 1: Preparing to Hire

1. [Selection Panel:](#)
   Once the Chair is appointed, the Chair needs to --
   a. Identify a Selection Panel that combines the expertise needed to evaluate candidates for their expected responsibilities and be diverse. Recommendations include --
      i. At least 50% of the panel members should self-identify as being from an under-represented group. These can include but are not limited to people of colour, gender identity, and/or sexual orientation.
      ii. At least 25% of the panel members should self-identify as female, nonbinary, and/or non-cisgender.
      iii. One member from outside the School to help strategically broaden the perspectives.
      iv. Include an HR officer familiar with the School/Institute and who can provide additional guidance and support in identifying potential bias.
   b. Convene the selection panel as early as possible to define the job description and candidate requirements.
      i. Clearly define required and desired attributes of the candidate, e.g. valuing supplementary experiences such as mentoring, teaching, and outreach. Use inclusive language in defining attributes, e.g. "must have a degree in X or be able to demonstrate equivalent knowledge."
      ii. Request in the job advertisement that candidates include a personal diversity statement on how they would contribute to fostering an inclusive culture that values diversity at the institute.
      iii. The job advertisement should encourage candidates to include the additional experience to add value to a specific job requirement.
      iv. State in the job advertisement that the successful candidate should meet most but not necessarily all of the job selection criteria.
      v. Encourage in the job advertisement that candidates include a statement on Research Opportunities or Achievements Relative to Opportunity (see examples below) to account for career impact due to interruptions.
      vi. Check the wording of the job advertisement using gender bias software and/or seek advice from Human Resources ([Gaucher, Friesen, & Kay 2011](#)).
      vii. To focus more on the application and mitigate unconscious bias, it is recommended first to make a longlist and then ask for references.

Alternatively, panel members can rank applicants separately on the written application and the interview components with defined relative weighting.
- viii. Confirm with the panel that applications will be reviewed and then references requested for a longlist.
- c. Establish a timeline for
  - i. Advertising the position
  - ii. Accepting applications
  - iii. Reviewing and selecting a list for requesting references
  - iv. Selecting a shortlist for interviews
  - v. The window for holding the interviews
  - vi. Date for making the initial offer
  - vii. Date for notifying unsuccessful applicants
- d. Define criteria for successful search
  - i. At least 35% of applicants from historically underrepresented groups; re-advertise as needed.
  - ii. At least 40% of shortlisted candidates are from historically underrepresented groups, e.g. 3 of 5 shortlisted candidates
- e. Training for Selection panel, including
  - i. University hiring policies
  - ii. How to access application materials and ensure confidentiality

2. **Advertising Position:**
Advertise as broadly as possible to reach as wide a pool of candidates as possible:
- a. Members of the Selection Panel should
  - i. Consider targeted recruitment to diversify the candidate pool.
  - ii. Send job advertisement directly to potential applicants to encourage them to apply, e.g. to high performing candidates relative to their career stage and relative to their opportunity.
  - iii. If applicable, advertise using social media and professional job registries, e.g. AAS and ASA.
- b. When using the panel's professional networks, ask colleagues for lists of candidates that
  - i. Are gender balanced
  - ii. Includes people outside of their usual list of potential candidates
  - iii. Considers intersectionality, e.g. gender, sexual orientation, and physical impairment
- c. For most hiring rounds, there is a set schedule, and so it is recommended to include in the advertisement the timeframe in which a decision will be made. This mitigates uncertainty by applicants over their application status.

3. <u>Collect demographic information</u>:
   Include the following as part of the application process.

   https://www.dca.org.au/system/files/di_101_diversity_survey_guide_dca_members_only_2020.pdf

   - Aboriginal and Torres Strait Islander
   - Age
   - Carer status (currently not directly covered)
   - Cultural/Ethnic identity
   - Language
   - Religious affiliation (currently not covered)
   - Disability
   - Gender Identity/Sexuality/Intersex Variations (currently not covered)

   To ensure anonymity, responses to demographic questions should be collected by professional staff and anonymised.

   See Appendix A – Demographic Survey Template

4. <u>Recommended:</u>
   Research Opportunity and Performance Evidence Statement (ROPE)
   a. Provide candidates with an opportunity to share events that have impacted their career progression, typically 1-2 pages.
   b. Provide reference to ARC ROPE assessment criteria for context and background.
   c. Examples include (add 3-4 anonymised ROPES from EDI volunteers)
      i. Carer's responsibilities
      ii. Mandatory service
      iii. Health conditions
      iv. Other

See Appendix B – Examples ROPES

and

Appendix C – Achievement Relative to Opportunity

Phase 2: Hiring Process

1. <u>Initial Review of Applications</u>:
   a. Panel members should use the same selection criteria from the job advertisement and use a scale, e.g. 1-5, when evaluating applications.
   b. Panel members should consider candidates' applications relative to opportunity.
   c. Identify longlist for requesting reference letters.
      i. Confirm that the longlist is diverse, e.g. includes candidates from historically under-represented groups.
      ii. Provide at least 2-week turn-around for reference writers.
      iii. Provide reference writers a template reference report (*see Appendix C – Reference Report Template*)
   d. If including initial interviews of longlisted candidates:
      i. Decide on virtual or face-to-face interviews and apply the same format to all candidates.
      ii. Identify the questions to ask all the candidates and have the Selection Panel ask the same questions to each candidate with tailored follow-up questions as needed.

2. <u>Making a Shortlist</u>:
   a. Upon review of longlisted candidates with their references and initial interviews (if applicable), select a shortlist.
      i. Confirm that the shortlist is diverse and reflects the larger society as a whole, i.e. the shortlist includes candidates of different genders and who identify as people of colour.
      ii. After candidates are ranked on merit, determine if any candidates need additional lead-time for international visas to facilitate with hiring
   b. In preparing a case for consideration by the approving administrator, e.g. Research School Director/College General Manager (as applicable), the following elements are to be included in the submission:
      i. The position title and classification.
      ii. The current gender profile of the work area.
      iii. The advertisement pathways used to attract candidates of historically under-represented groups.
      iv. The actions taken by the Selection Panel during the advertisement process to improve the demographic balance of the candidate pool.
      v. A list of the shortlisted candidates and, if available, their gender and heritage.
      vi. In instances where candidates from underrepresented groups in the longlist are not shortlisted, a brief summary as to why these candidates are not suitable for shortlisting.

3. **Running the Interviews for Shortlisted Candidates:**
   a. Decide on virtual or face-to-face interviews and apply the same format to all candidates.
   b. Identify the questions to ask all the candidates and have the Selection Panel ask the same questions to each candidate with flexibility to tailor follow-up questions as needed.
   c. Include an opportunity for the candidate to share anything that was not raised during the interview, e.g. as a final interview question along the lines of "is there anything else that you would like to share with the panel?"
   d. Provide information on equitable and inclusive practices, e.g. policies on parental leave and family friendly hours. Some institutes may have an EDI packet available for advertising and recruitment purposes.

4. **On-boarding and Induction of Candidates:**
   a. All new hires will be inducted into their role by their supervisor within the first two-days of employment.
   b. As part of the on-boarding process, new hires will be introduced to other staff and given a guided tour of the premises/site.
   c. All new hires will be provided with work, health and safety instruction, and introduced to local OH&S representatives, fire wardens, first aiders and shown safety meeting points.
   d. All new hires will be provided with an appropriate office space with an adjustable desk, chair and computer equipment on their first day of employment.
   e. All new hires will be expected to, and given time to, complete all on-line induction courses. The new-hire will need to provide completion certificates to their supervisor.
   f. All new hires will be asked to complete a survey at the end of their first two weeks of employment, which will cover demographic information, as well as satisfaction with induction processes.

Phase 3: Post-search Assessment

The Chair of the Hiring Panel is primarily responsible for reporting to ASTRO 3D on the metrics and assessment of the success of the recruitment process. The assessment phase is comprised of three components:

1. **Monitoring of metrics**
   To understand the pattern of recruitment and implement on-going improvements. The following metrics will be collected in the ASTRO 3D Recruitment Database:
   - Numbers and demographics of applicants
   - Numbers of qualified applicants
   - Numbers of female applicants
   - Selected demographics of applicants and successful candidate

   Link - ASTRO 3D Recruitment Assessment [Form](#) for Chairs of Hiring Panels - this should be completed by the Chair as soon practicable after the successful recruitment.

2. **Feedback from applicants:**
   a. [Template survey for candidate feedback available here.](#)

3. A **review** should be undertaken yearly round as part of a comprehensive Centre-wide assessment of recruitment by the EDI Committee. A review of the metrics and feedback from the Recruitment Assessment database should provide an assessment as to whether the Hiring Guidelines are improving diversity in ASTRO 3D and whether any improvements can be made.

4. Notify unsuccessful candidates as soon as possible within the policies of the institute.

Appendix A - Demographic Survey Template

As part of fostering and supporting an inclusive and diverse work-force, it is essential that we determine whether our hiring practices are effective at recruiting people from all groups in our society. Your response to the following **optional questions** are greatly appreciated. All responses will be kept confidential and only used for anonymously tracking demographics. Responses are collected by professional staff and anonymised.

1) How do you self-identify in terms of ethnicity and/or heritage ? Please include all descriptors that are relevant to you.
   a) Prefer not to answer
   b) Selected descriptors: _____

2) Do you identify as a Aboriginal / Torres Strait Islander?
   a) Yes
   b) No
   c) I don't know
   d) Prefer not to answer

3) Which gender do you most identify as?
   a) Prefer not to answer
   b) Female
   c) Male
   d) Non-binary
   e) Prefer to self describe: _____

4) What is your linguistic and cultural background?
   a) Is English one of your primary languages?
   b) List any additional spoken languages and level of fluency (primary, fluent, proficient, basic)
   c) Have you lived in more than one country, i.e. spent formative years in two or more countries? Please list.

5) Do you have a disability? Disability is a broad term and includes physical, intellectual, psychiatric, sensory, neurological, learning disability, physical disfigurement & immunological.
   a) Prefer not to answer
   b) If you have a disability, do you require a work-related adjustment? If yes, could you please describe what adjustments can be made by the hosting institution?

6) What is your age group ?
   a) Prefer not to answer
   b) Under 20
   c) 20-24

d) 25-29
e) 30-34
f) 35-39
g) 40-44
h) 45-49
i) 50-54
j) 55-59
k) 60-64
l) 65-69
m) 70+

Appendix B – Example ROPES

ROPE A

Amount of time as an active researcher

PhD: I graduated with my PhD 11 years ago in May 2010 at University X. During my PhD, I worked full time on research.

Employment: After completing my PhD, I was employed as a research associate at an observatory with 50% telescope duties. Following that, I held a position at University Z, which had 50% teaching responsibilities. Hence, between 2010 and 2016, I had 50% allocated time to my research in the context of employment. In 2016, I took up a position at University Y, which I took part time until 2019. I currently have most of my time (0.85FTE) dedicated to research (modulo administrative duties and committees).

Significant career interruptions: I was on parental leave (0% research) for approximately 1 year from late 2013 until late 2014, inclusively. Between 2016 and 2019, I was employed part-time (0.8 FTE). Summary: Taking career interruptions, part-time work and telescope support duties into account, I have had on average 0.55 FTE available for research over the last 11 years. Hence, I have ~6 FTE years of research experience since completing my PhD.

Research Opportunities

Research positions held July 2016 - present: ABC Fellow, University Y. This position is a prestigious independent research fellowship to work on science relating to the ABC collaboration. As with other fellowships, this position offers flexibility of research program. There are no required duties associated with this role, however accounting for administrative tasks and committee work, I spend ~85% of my time on research. I started this role working part-time (0.8FTE) and moved to full-time in June 2019.

2013 - 2017: University Z. This was a dual role with 50% of my time dedicated to teaching and 50% for independent research. The position offered flexibility of research

program. I started this role working full-time (1.0 FTE) and returned to work in late 2014 after nearly one year on parental leave.

2010-2013: Observatory X Fellow. This fellowship is a highly competitive and sought-after independent position. I had a dual role with 50% of my time dedicated to observing and supporting Observatory X and 50% of my time dedicated to independent research. The position offered flexibility of research program.

ROPE B

Amount of time as an active researcher

I was awarded my PhD 9 years ago in 2012. Since that time I have been employed full-time in research-only positions and have not experienced any academic interruptions.

Research Opportunities

From 2012 until July 2014 I was employed as a research associate at University X, working with Prof. ABC. This was a pure research position, with minor administrative duties such as interviewing prospective students. Following this I was employed as an ARC Centre of Excellence for All-Sky Astrophysics (CAASTRO) Postdoctoral Research Associate from July 2014. This was again a pure research position at University X, with a slightly larger set of administrative duties within the Centre of Excellence, including a substantial role in an outreach program. In late 2015 I was awarded a University Y Postdoctoral Research Fellowship. During this Fellowship I have taken on moderate amount of student supervision (co-supervision of two PhD students, primary supervisor of ~10 undergraduate and visiting students) and teaching (lecturing for a single course in Semester 2), amounting to approximately 15% of my time, with the remaining 85% for research.

During my PhD at University Z, I had limited access to telescope facilities and had to rely on existing datasets, which limited the research projects I was able to undertake. At University X, I had access to some of the most powerful telescopes in the world, the two 10m Keck telescopes in Hawaii, as well as Australian facilities including the Siding Spring Observatory 2.3m telescope, and took full advantage of these opportunities to publish high-impact research. At University Y, as a member of the 123 collaboration, I have utilised over 100 nights of 3.9m Anglo-Australian Telescope time, as well as having access to a wide range of other national and international telescope facilities. I am heavily involved in the Survey 456 project, which has experienced significant delays due to covid, having a substantial negative impact on my research output.

As a researcher at University X I had very limited access to research funding, severely limiting my ability to attend conferences and form new international collaborations. After moving to University Y in 2015 this situation improved significantly, allowing me to

participate in a number of international conferences. My research Fellowship further increased my access to research funding, allowing me to develop several productive new international collaborations.

ROPE C

Amount of time as an active researcher

I obtained my PhD 7 years ago, in August 2014 from University X. I began a position at Observatory Y from Jan 2015 to Jan 2017. Due to the delay between graduation and beginning my new position at Observatory Y, I was unemployed for 5 months. I started an ASTRO3D fellowship at University Z in 2017. Due to immigration and visa delays, I was unable to start this position until May 2017, leaving me unemployed for 4 months between positions. In 2018, I was diagnosed with a severe auto immune disease. Due to the significant amount of medical tests required and symptom flares, I have lost 3 months of FTE since that time due to this disability. In total, I have been an active researcher in 6 of the 7 years since being awarded my PhD.

Research Opportunities

My first post-PhD position was as a research associate at Observatory Y from Jan 2015 to Jan 2017. My time was entirely dedicated to research while at Observatory Y, and I had only marginal administrative and teaching responsibilities. I applied for and was granted a prestigious 2 year fellowship to stay at Observatory Y through agency ABC in 2017, to work on projects associated with the XYZ satellite. However, at this time I also obtained a 4 year ARC ASTRO3D ARC fellowship at University Z which I accepted instead. I have been an ASTRO3D fellow since May 2017 at University Z. Due to my significant leadership and advising roles at University Z and within ASTRO3D, approximately 80% of my time is devoted to research while the rest is devoted to administrative and supervising duties.

While a researcher at Observatory Y, I had limited access to travel funds and did not supervise PhD students. As an ASTRO3D Fellow at University Z, I have access to ~$10000 AUD for travel each year in which to attend conferences and build collaborations. In my roles at University Z and ASTRO3D, I have co-supervised 9 undergraduate and honors students, and am the primary supervisor for 2 PhD students. Due to my senior leadership roles in Survey 123, I have also developed and supervised projects for two postdoctoral researchers.

During work on my PhD, I had access to the Sloan Digital Sky Survey, which is one of the most widely recognised projects in all of astronomy. While at Observatory Y, I had access to the ESO telescopes, including the VLT. At University Z, I have access to the AAT and VLT telescopes. I am one of the survey builders for Survey 123 utilising the

AAT. Throughout my career I have had access to some of the best telescope facilities in the world, and have worked on the three largest surveys of topic X to date.

Appendix C – Achievements Relative to Opportunity

The impact of the 2020 pandemic on early career progressions are both immediate and long term, e.g. delay in acquiring data and subsequent impact on publication of papers. There are now multiple studies showing that the career disruptions are uneven with women and under-represented groups more severely affected. We are living in a new-normal where helping our younger colleagues recover and adjust is essential to the overall well-being of our profession.

To ensure that we do not lose gains made in the last decade to make astronomy a more diverse and equitable profession, we recommend that hiring committees consider applicants' statements on Achievement Relative to Opportunity (ARO). If possible, we recommend that the job advertisement include a prompt encouraging applicants to include a brief ARO statement in their cover letters.

Below are possible ARO templates to guide hiring panels and applicants.

Examples of COVID impact statements to include in job applications

1. Due to lockdown starting in April 2020, I have experienced a reduction of approximately 30% on my research productivity due to changes in teaching load and resources. Pivoting to online teaching required a significantly higher proportion of time, and teaching responsibilities also increased due to budget constraints for casual staff.
2. The increased carer duties including home-schooling due to the lockdown since March 2020 has reduced my research productivity by 50%. The delay in my research program has postponed my plans to apply for competitive funding by at least one annual round.
3. Telescope closures during 2020 delayed scheduled observations by 10 months. The resulting delay in my research program has postponed my plans to apply for competitive funding by at least one annual round.
4. Due to extended border closures and travel restrictions, I was unable to start my position for XX months. The resulting delay in moving and beginning my position has meant a delay in my research program and my plans to apply for competitive funding.
5. Due to extended border closures and travel restrictions, I started my position remotely in July 2020. Because of the time difference between X and Australia and moving to a fully online environment to a new research environment in Australia, I experienced a reduction of ~15% on my research productivity.
6. During the period X-X, my elderly family members overseas were under extreme difficulties due to the outbreak of CoVID-2019. I was unable to travel to them due to Government restrictions, creating a significant source of anxiety/interruption during this time, and reducing my ability to work at full efficiency.
7. I am an expat living alone, and during lock-downs in Sydney/Melbourne during X-X, I transitioned to working from home as instructed by the government. During this time, my

mental health was impacted by working remotely and in isolation, requiring my work capacity to reduce by 30%.

Further ROPE Resources

- [Link to UNSW Achievements Relative to Opportunity 2020 for Impact due to COVID](#)
- [Current ARC guidance on Research Opportunity and Performance Evidence Statement](#)
- [Current ARC guidance to preparing applications responding to impact by COVID 19](#)
- [2021-2022 Scientists Employment and Remuneration Report](#) from Science & Technology

Appendix D - Reference Report Template

Provide the Position Description to the referees for details of the position for which the applicant has applied.

Provide guidelines to the referees for avoiding gender bias in reference writing, e.g. by the [Commission on the Status of Women from the University of Arizona](#)

The Working Relationship with the Applicant

1. What is/was the working relationship between you and the applicant?

2. How long have you known/supervised the applicant?

3. What work does/did the applicant perform under your supervision/observation – position, responsibilities, key technical aspects of role?

4. What key behaviours and personal attributes were required to successfully perform their role and how well did the candidate demonstrate these?

5. How would you describe the applicant's work performance?

6. Please comment on their honesty and integrity.

7. What amount of supervision was required?

8. Please describe their commitment and approach to occupational health and safety.

9. How well did the applicant work with other people (eg. co-workers, supervisors, professional staff, students)

General Questions

10.   What do you consider to be the main strengths of the applicant, including any significant achievements?

11.   What are the applicant's main areas for development/training needs? Please describe any areas for improvement you observed, i.e., where support or training was required. (please explore both technical and personal skills).

12.   Has the candidate been involved with personnel or workplace issues that are not aligned with promoting a supportive and inclusive culture?

13.   If applicable please explain, as you understand it, their reasons for leaving (if unsure, please determine whether the parting was amicable).

14.   Is the applicant someone you would want to mentor/supervise your younger team members? (If the answer is no, explore reasons why).

15.   If given the opportunity, would you re-employ the applicant? (If answer is no, explore reasons why).

Questions in Relation to Selection Criteria

Please provide your views on the knowledge, experience and performance of the applicant in relation to the selection criteria and provide a rating using the University's Rating Scale (see attachment 1).

Criterion 1:	
Referee's Rating:	
Referee's Comments:	

Criterion 2:	
Referee's Rating:	