



#CRACKINGTHECODE  
#IWD2023

# Embracing diversity and inclusion in cyber security: a conversation on how we innovate to become the best we can be



Dr. Ying (Lena) Wang  
RMIT University



Jacqui Loustau  
AWSN

 MAR 7 March 2023 (Tuesday)

 1 to 2PM AEDT

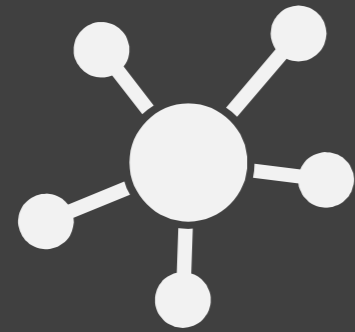
 Virtual via ZOOM

## ACKNOWLEDGEMENT OF COUNTRY

The AWSN would like to acknowledge the Traditional Owners and custodians of the land on which we are meeting.

We pay our respects to their Elders, past, present and emerging, and the Aboriginal Elders of other communities who may be here today.

# BEFORE WE BEGIN...OUR CODE OF CONDUCT



AWSN events and training, present opportunities for all attendees to learn, share knowledge and network.



We are dedicated to creating a safe, enjoyable and inclusive environment for everyone irrespective of gender, age, ethnicity, sexual identity, religion, disability, socio-economic background & physical appearance.



Unacceptable behaviour including harassment or abuse will not be tolerated.

To report an issue, please email: [board@awsn.org.au](mailto:board@awsn.org.au)

***RESPECT | KINDNESS | COLLABORATION***

# WHAT WE DO

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## CONNECT

Connect you with the security community, in person and online



## SUPPORT

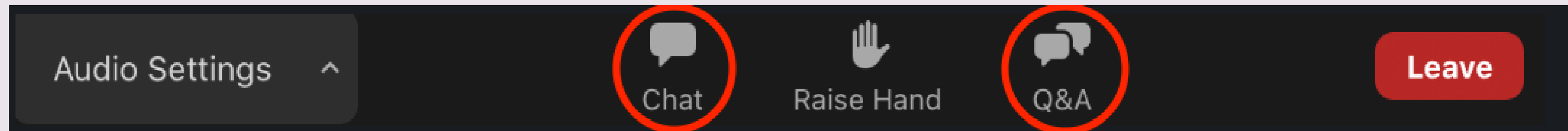
Support you on your career journey



## INSPIRE

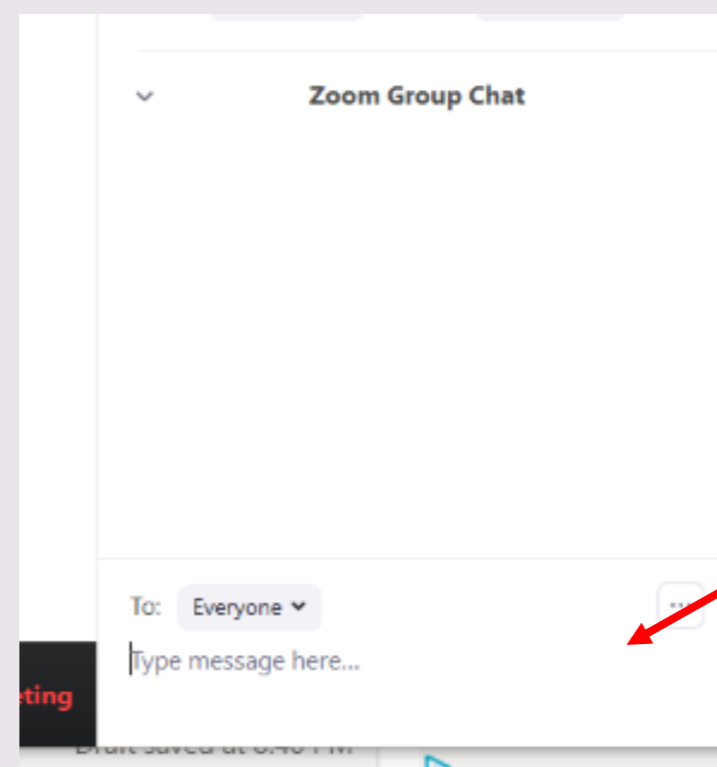
Inspire others to pursue a career in security and help build the Australian pipeline of talented security professionals

# House Keeping



If you have a question:

Hover over your control panel and click on the Q&A function to let the moderator know if you have a question



Type your question in the box – the moderator will see it.

# COME AND JOIN US

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# THANKS TO OUR SPONSORS

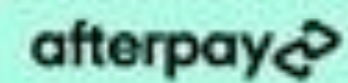
## Platinum



## Gold



## Silver



## Bronze



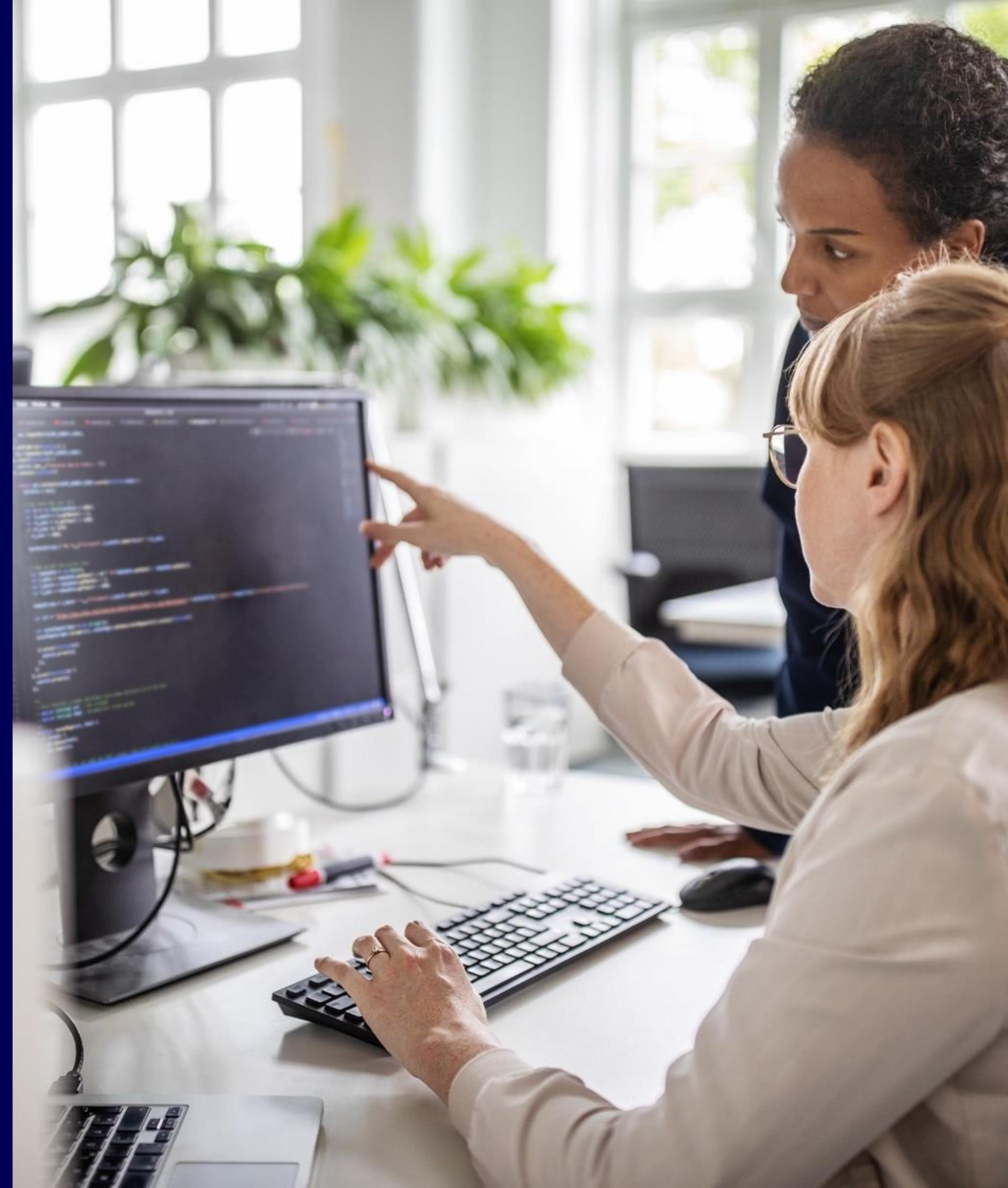
# Embracing diversity and inclusion in cyber security: A conversation on how we innovate to become the best we can be

**Jacqui Loustau**

Founder and Executive Director, AWSN

**Dr Lena Wang**

Associate Professor in Management, RMIT University  
Co-Director, Centre for People, Organisations and Work





## Acknowledgement of Country

RMIT University acknowledges the people of the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nation on whose unceded lands we conduct the business of the University.

RMIT University respectfully acknowledges their Ancestors and Elders, past and present.

RMIT also acknowledges the Traditional Custodians and their Ancestors of the lands and waters across Australia where we conduct our business.

# Our Research

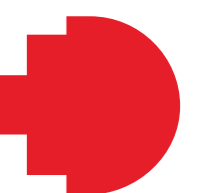
- This research project is being conducted by RMIT University Centre for Cyber Security Research and Innovation in partnership with the Australian Women in Security Network (AWSN) and the Australian Signals Directorate.
- This project is being carried out as an independent academic analysis and is not linked to any commercial interest. The research team is comprised of Dr Leonora Risse, Dr Maria Beamond, Dr. Joanne Hall, Dr. Lena Wang, Dr. Banya Barua, Professor Matt Warren, and Mr Laki Kondylas.



# Is Australia's cyber security workforce the best it can be?

## Challenges for the sector

- Rising importance of security sector for Australian economy and wider society
- Skills shortages and increasing complexity of skill needs
- Under-representation of women
- Gains of diversity are being forgone – innovation, creative problem-solving, understanding people



# Is Australia's cyber security workforce the best it can be?

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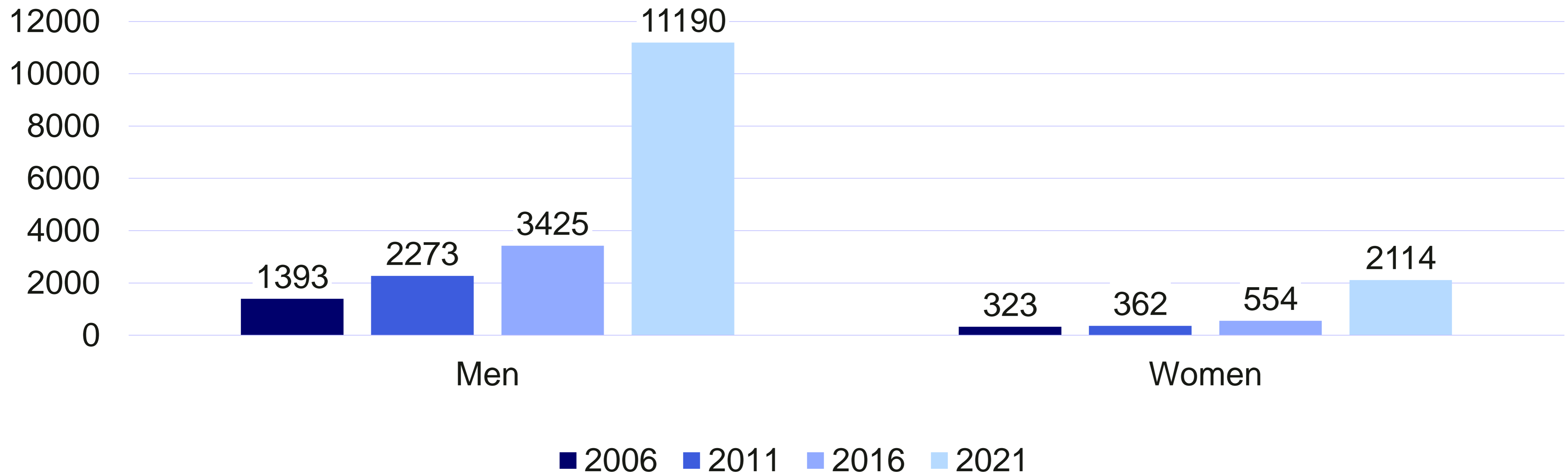
## But solutions are not clear-cut

- Gender gaps in workforce outcomes can be interpreted a signal of biases and barriers
- Gender equality involves more than simply “encouraging girls to study IT”
- Importance of workforce culture that is genuinely inclusive and embraces diversity as a strength
- Understanding resistance to change – Why might people in the sector not want to change and expand in diversity?

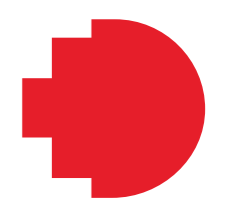


# ICT Security Specialists in Australia have been soaring in number...

Number of people employed as ICT Security Specialist, Australia, 2006 to 2021

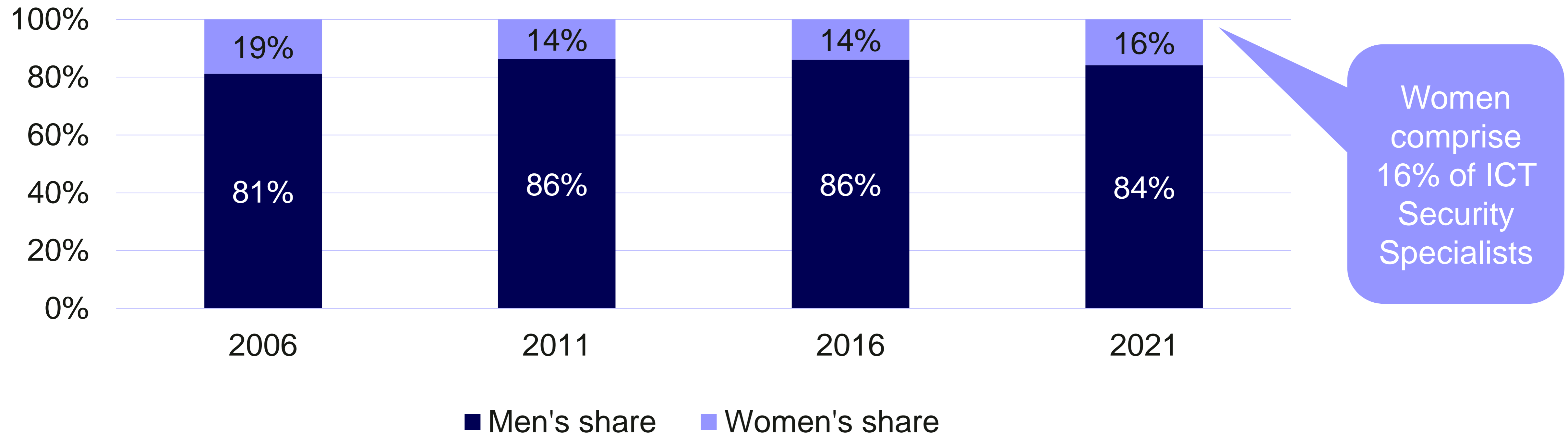


Source: ABS, Census of Population and Housing, TableBuilder, 2006 to 2021

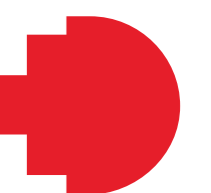


# ... but women's share has not

Gender composition of people employed as ICT Security Specialist, Australia, 2006 to 2021

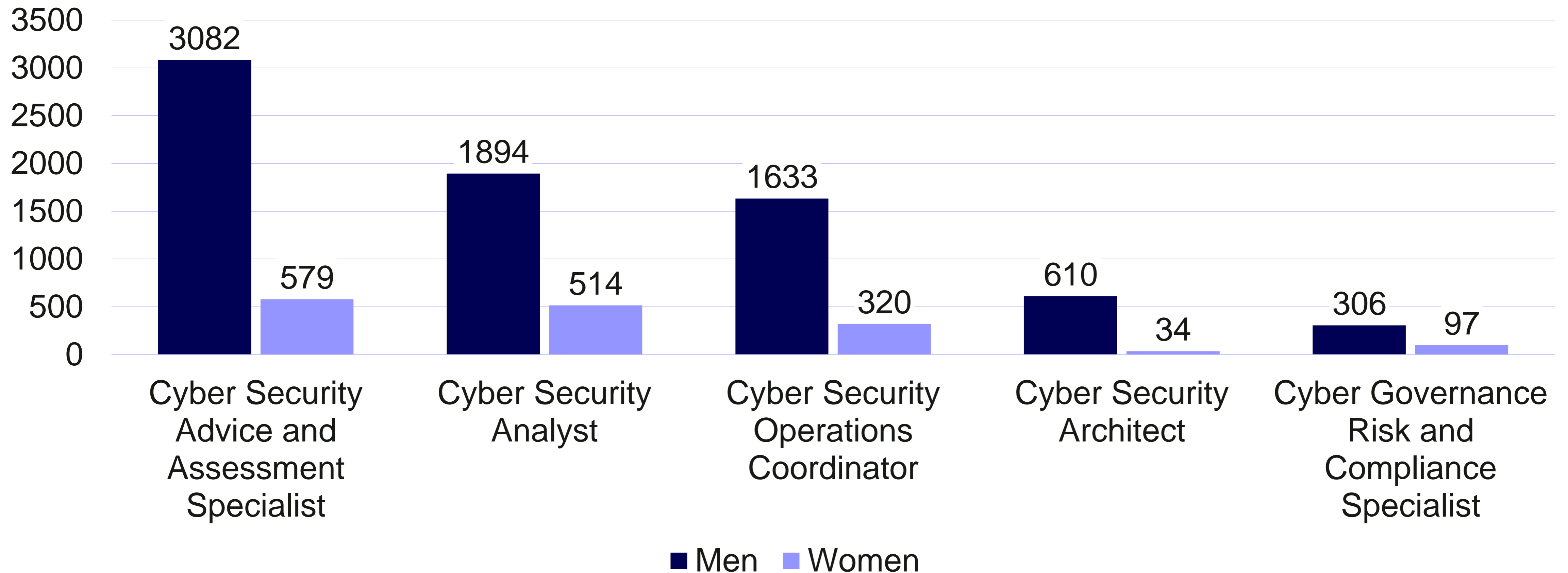


Source: ABS, Census of Population and Housing, TableBuilder, 2006 to 2021



# Cyber is now an official occupational category

Number of people employed in Cyber occupations, Australia, 2021



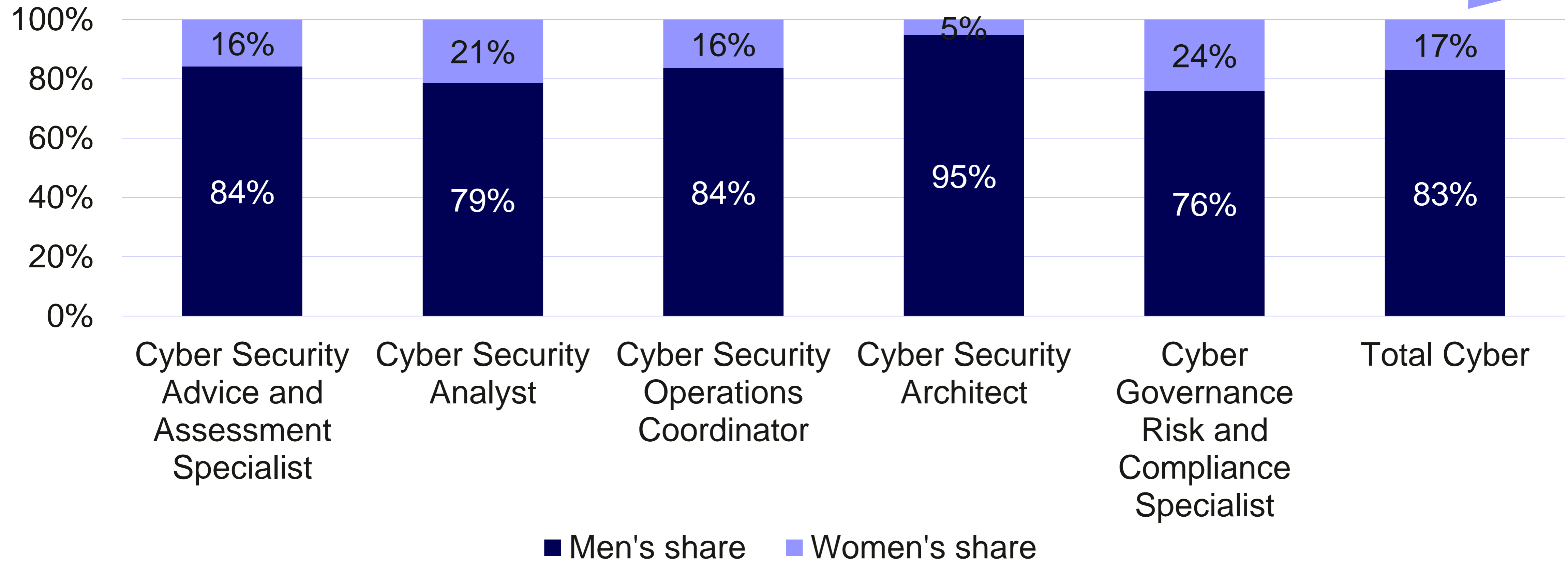
Source: ABS, Census of Population and Housing, TableBuilder, 2021



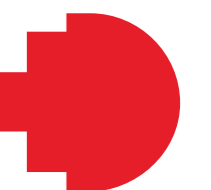
# ... but men comprise the majority of cyber jobs too

Number of people employed in Cyber occupations, Australia, 2021

Women comprise 17% of Cyber occupations overall



Source: ABS, Census of Population and Housing, TableBuilder, 2006 to 2021



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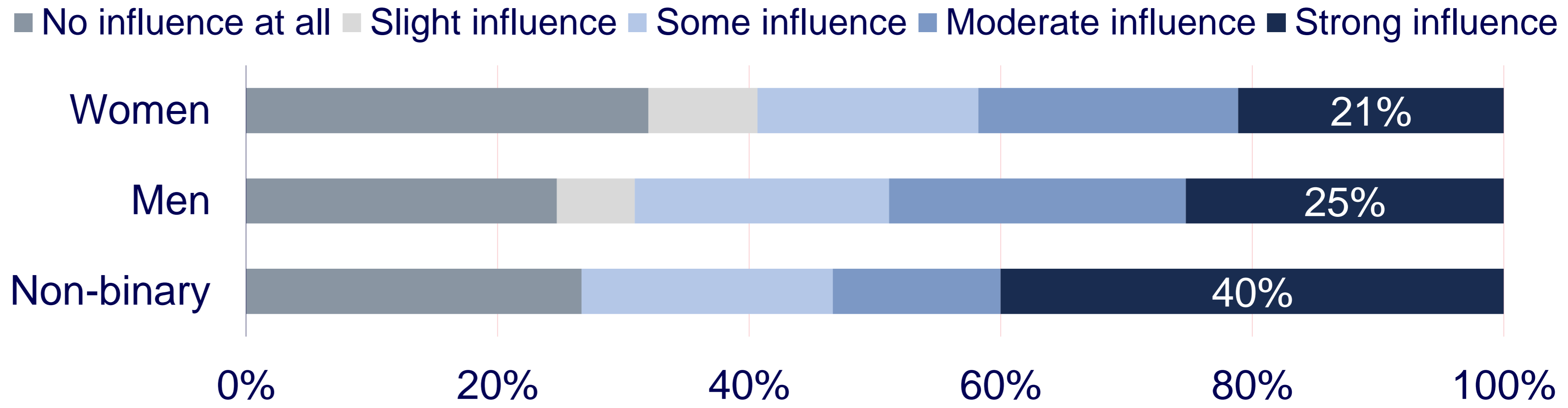
## Understanding people's experiences in the sector

### RMIT's survey of security sector

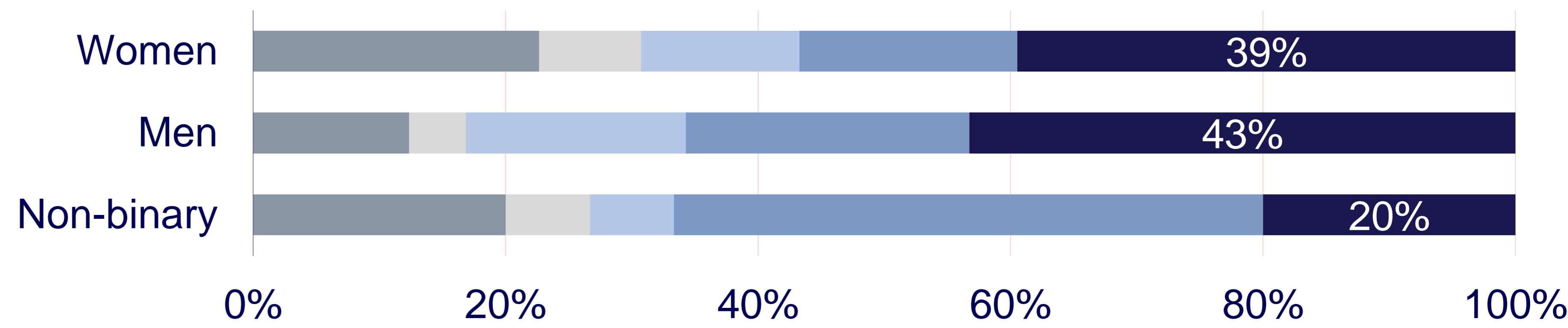
- Survey of people currently or formerly working in the security sector in Australia
- Collected 664 responses during August and September 2022
- 456 of responses were people working in cyber security
- Respondents identified as: 450 women; 178 men; 15 gender non-binary/gender-diverse/gender-fluid
- Provides insights into their motivating factors, experiences, barriers and challenges working in the sector

# Gender differences in motivations to pursue a career in the security industry

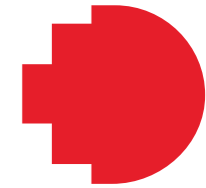
**“I performed well in fields of study that relate to the security industry”**



**“I enjoyed the fields of study that relate to the security industry”**



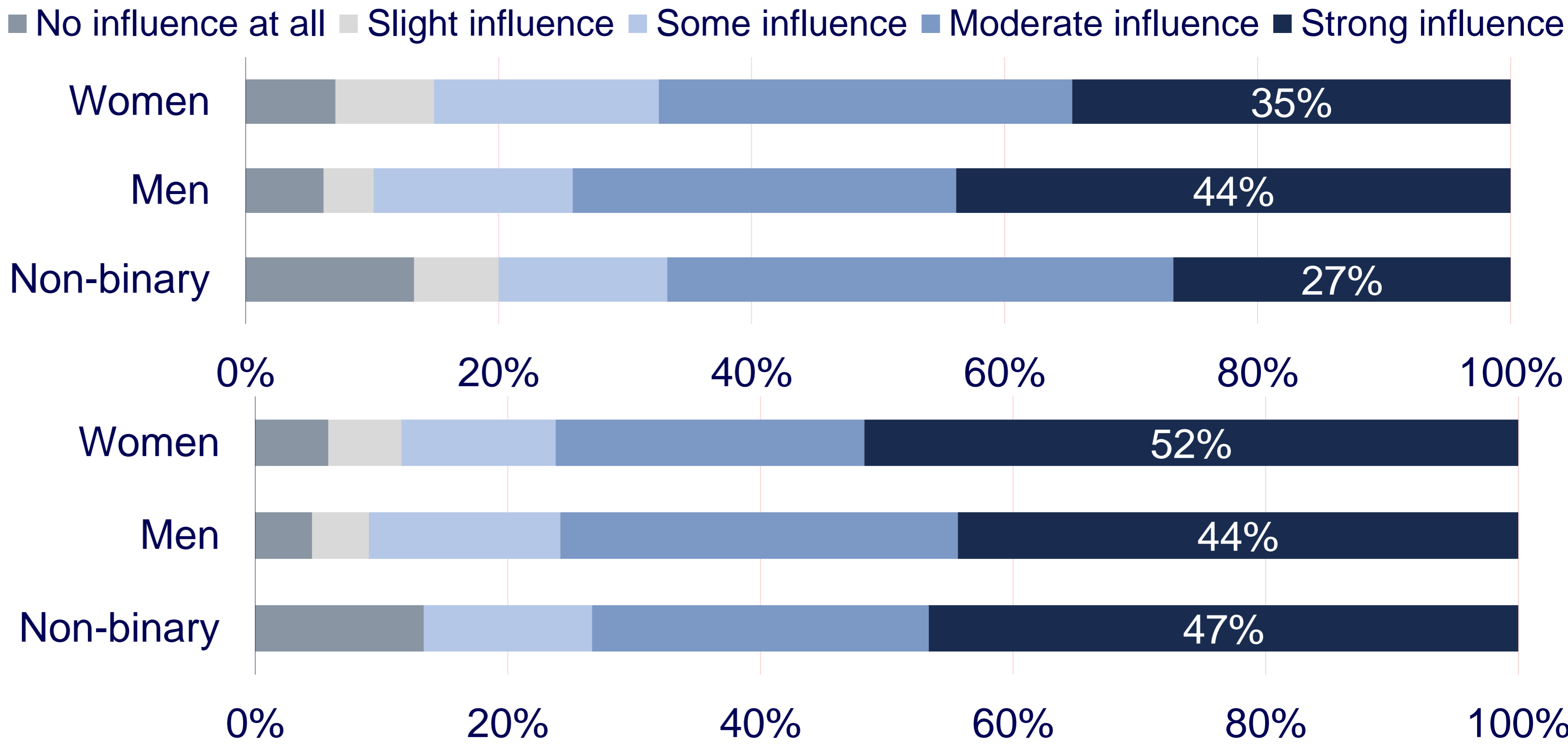
Source: RMIT (2022) Gender Dimensions of Australia’s Security Sector



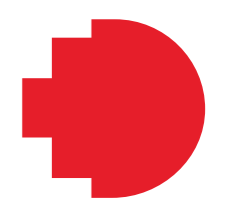
# Gender differences in motivations to pursue a career in the security industry

“The sector offers me the opportunity to use my skills”

“I am motivated to make a difference to society”

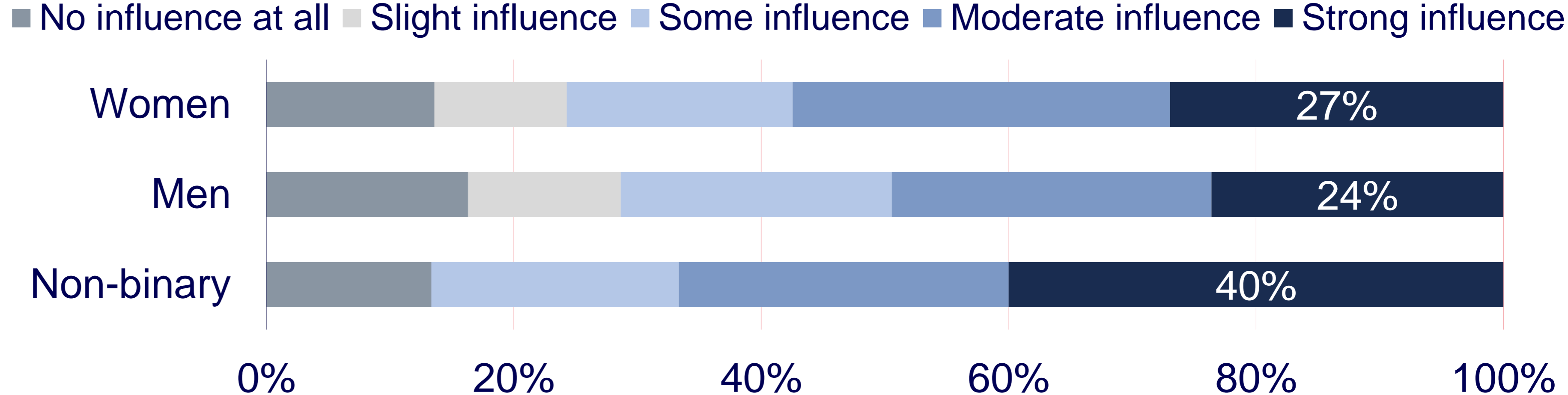


Source: RMIT (2022) Gender Dimensions of Australia’s Security Sector

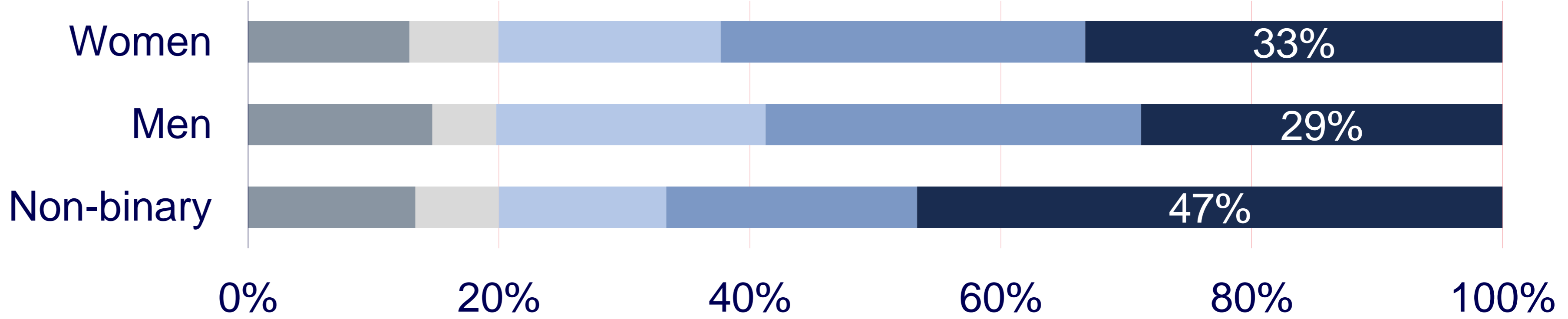


# Gender differences in motivations to pursue a career in the security industry

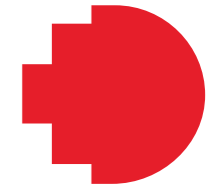
“I considered **earning prospects** in the industry”



“I considered **job security and employment prospects** in the industry”

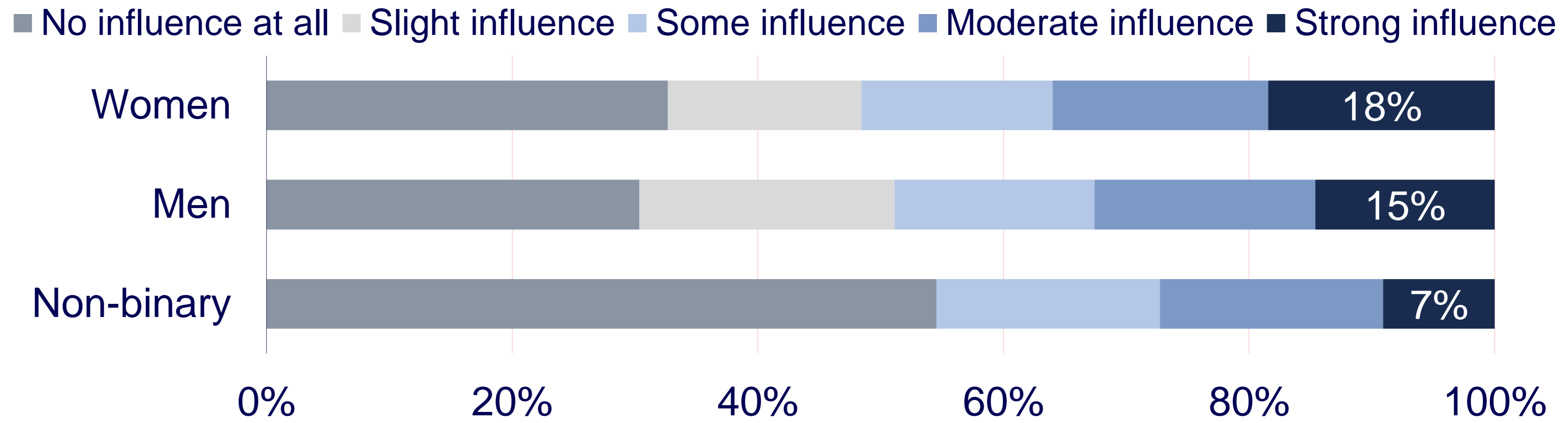


Source: RMIT (2022) Gender Dimensions of Australia's Security Sector

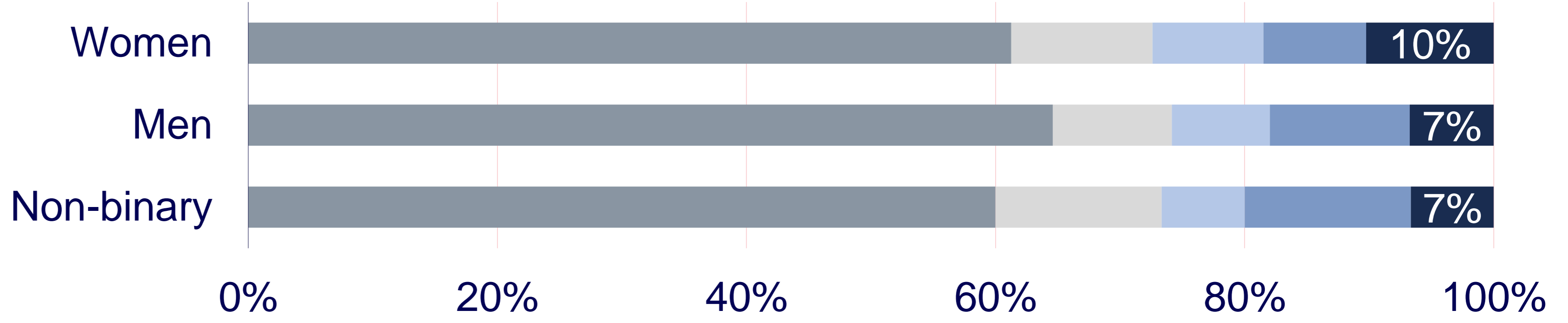


# Gender differences in motivations to pursue a career in the security industry

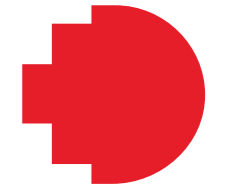
“I was inspired by **role models and mentors** who work in the security industry”



“I have **friends or family** who work in the security industry”

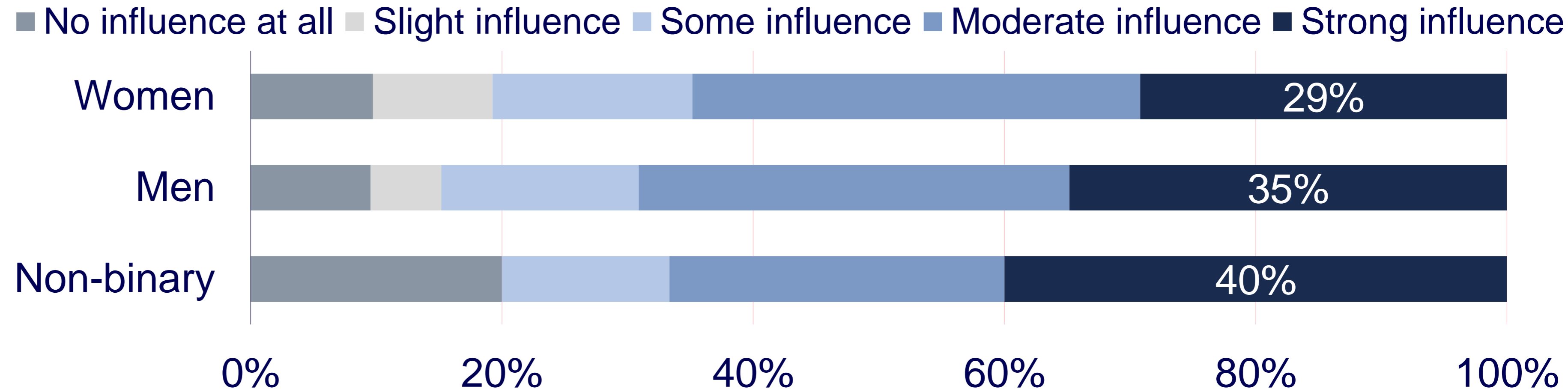


Source: RMIT (2022) Gender Dimensions of Australia’s Security Sector

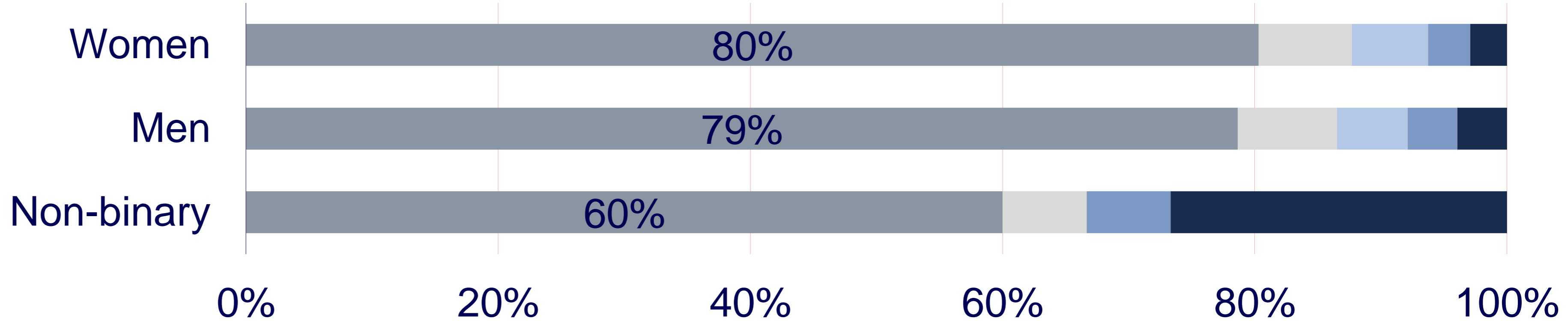


# Gender differences in motivations to pursue a career in the security industry

“The industry offers opportunities that are suited to my work preferences”



“I could not find other employment options elsewhere”

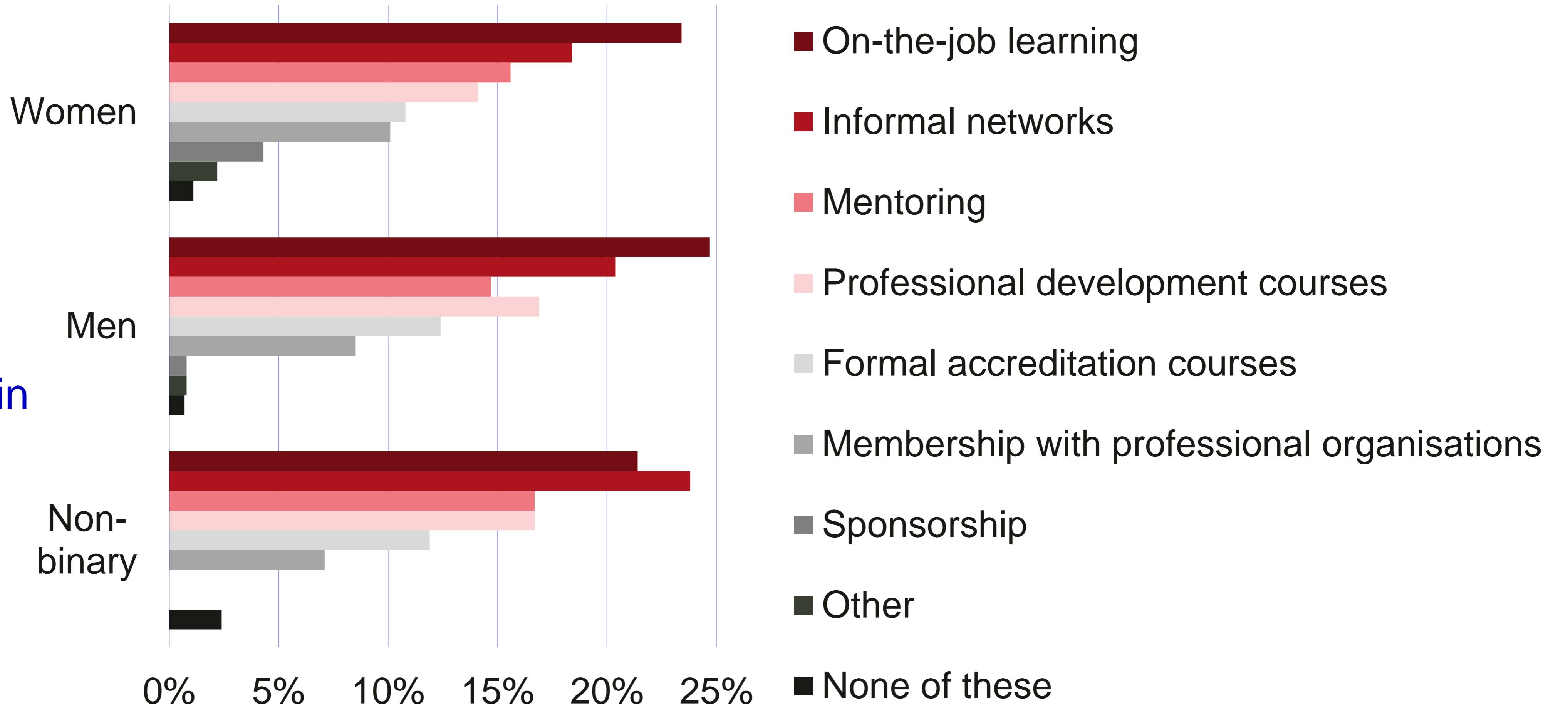


Source: RMIT (2022) Gender Dimensions of Australia’s Security Sector



# Gender differences in career advancement in the sector

“What specific professional activities had aided your career advancement in the security industry?”



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# Reasons for leaving previous job in the security sector

**“Characteristics of my previous organisation prompted me to look elsewhere”**  
10% of respondents

**“Characteristics of my previous leader or manager prompted me to look elsewhere”**  
8% of respondents

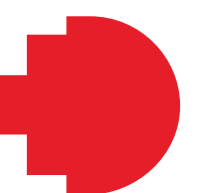
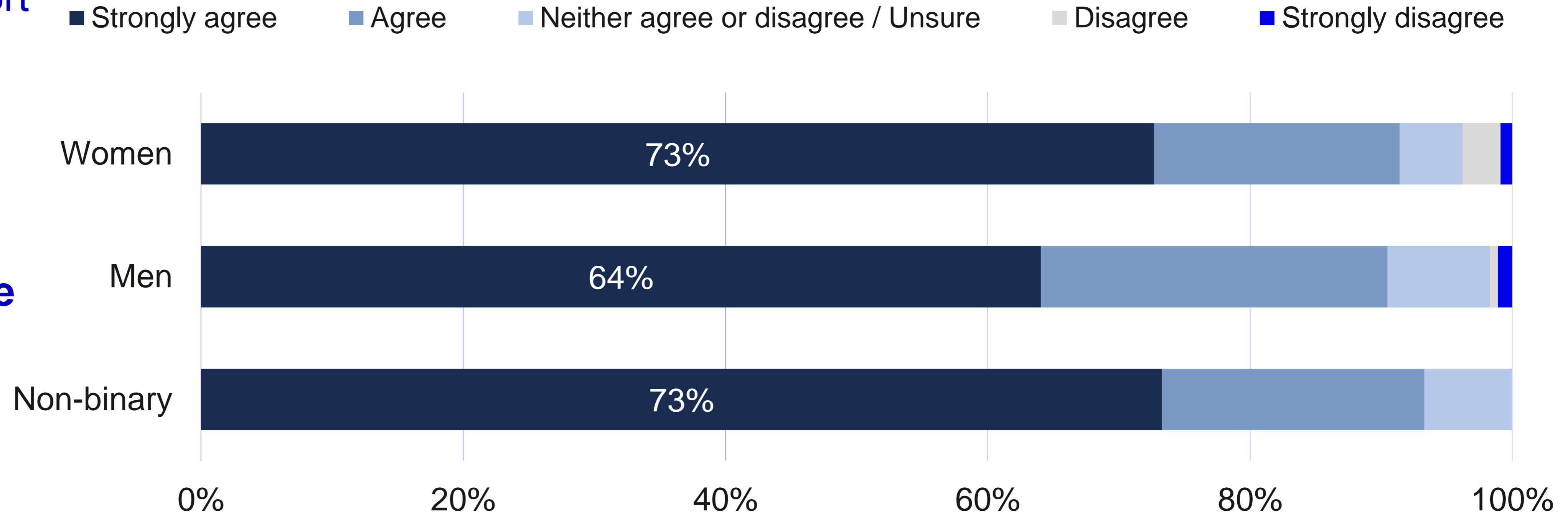
**“Role at organisation was toxic and was being bullied”**  
Anonymous survey participant

**“Toxic work environment”**  
Anonymous survey participant



# Gender differences in support for equality initiatives

“Additional support to advance women’s careers and programs to promote gender equality are **beneficial for the security sector overall**”



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# Perspectives differ on gender equality policies

**“While there are workplace policies/initiatives, it is unclear if they are being enforced or if anything is being done after saying that these initiatives have been started.”**

Anonymous survey participant

**“We focus on equality without quotas, as quotas create inequality. Our anti-discrimination and pay equality policies are our focus on equality.”**

Anonymous survey participant

**“Women compete against a much smaller applicant group. Women in IT have a much easier time getting started, as the agency informally suggests to hire women. Usually 10 to 1 male applicants to female.**

**Unfortunately in areas dominated by women, there are no measures to hire more men. There are also no initiatives to hire more women as garbage people, which is significantly under represented.”**

Anonymous survey participant



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## What comes next....?

- Look out for RMIT's upcoming Report on Gender Equality in Security
- Our approach focuses on:
  - underlying reasons for women's under-representation
  - 'what works' to improve gender representation, inclusion and influence – and what doesn't
  - evidence-based approaches and evaluations
  - importance of de-biasing systems and cultures
  - understanding resistance to change
  - how greater diversity benefits all

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# Thank you

This project is a partnership between:



The AWSN's involvement in the study has been facilitated through sponsorship support by the Australian Signals Directorate, Australia's foreign signals intelligence and security agency.



The views and findings presented are solely those of the contributing authors and not attributable to their organisations.



