

Research Software Engineers

Australian Results of the 2018 Survey

Presenter: Nicholas May
nicholas.may@rmit.edu.au

Co-Authors: Nooriyah P. Lohani
Manodeep Sinha



Background

In 2018, the **RSE-AUNZ** association participated in an international survey [1] organized by the Software Sustainability Institute in the UK, with questions tailored for AU and NZ contexts [2].

“The purpose of this survey is to collect information about people who develop the software that is used in research.”

“We call these people Research Software Engineers (RSEs)^[2], but they exist under many job titles (from postdoctoral researcher to applications consultant, to bioinformatician).”

1. Phillippe et. al. (2019), ‘softwaresaved/international-survey: Public release for 2018 results’, <http://doi.org/10.5281/zenodo.2585783>
2. by Nooriyah Poonawala Lohani (NeSI), Manodeep Sinha (Swinburne University of Technology), and Nicholas May (RMIT University).
3. <https://www.software.ac.uk/blog/2016-11-17-not-so-brief-history-research-software-engineers>

Results Overview

Background

- Level and Discipline of Education
- Software Engineering Experience
- Learning RSE Skills

Current Role

- Employment
- Role
- Work
- Tools

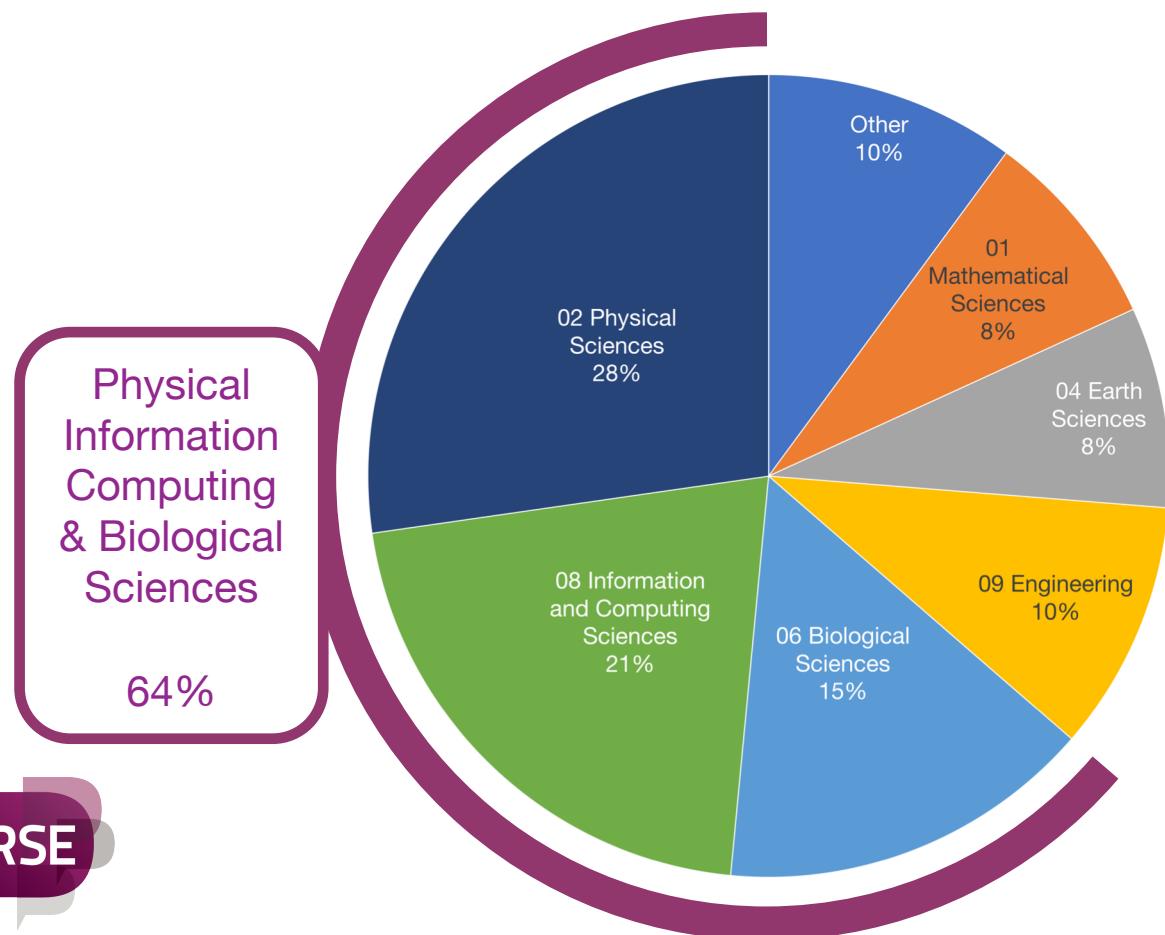
Future

- Skills to Improve
- Time Spent – Actual vs Desired
- RSE Association & Conference

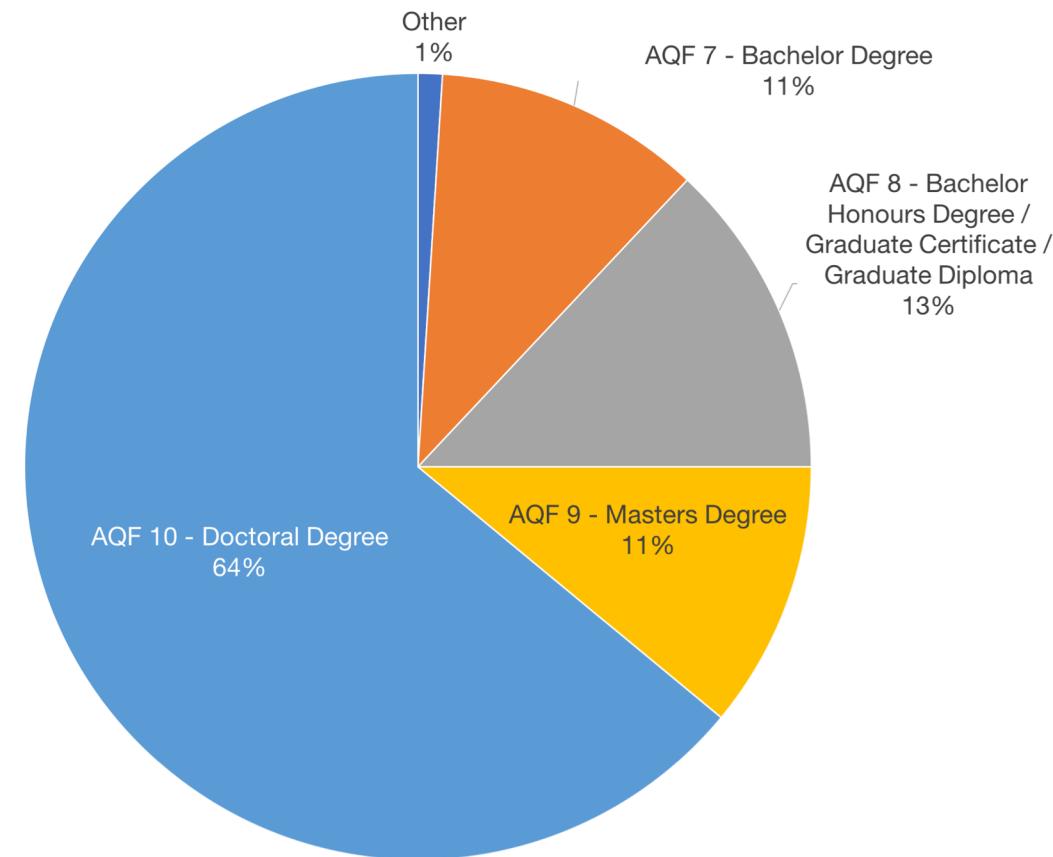
99 of the survey participants were from Australia

Background - Education

What is the discipline of your highest academic qualification?

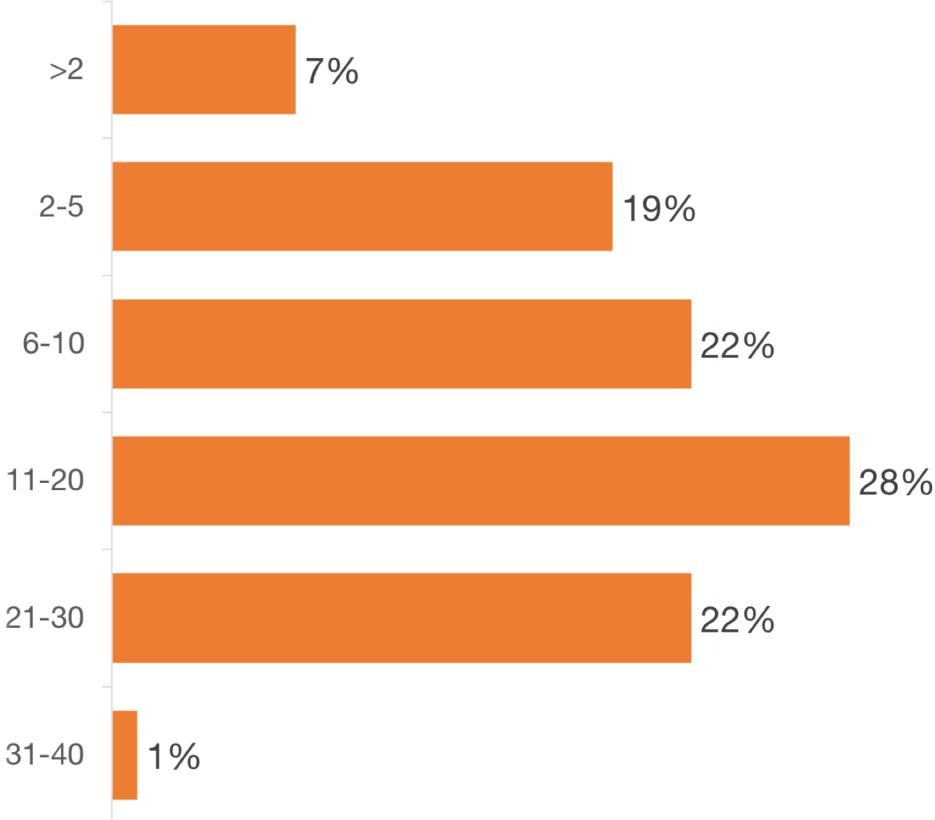


What is the highest level of education you have attained?



Background – Experience & Profession

Years of software development experience?



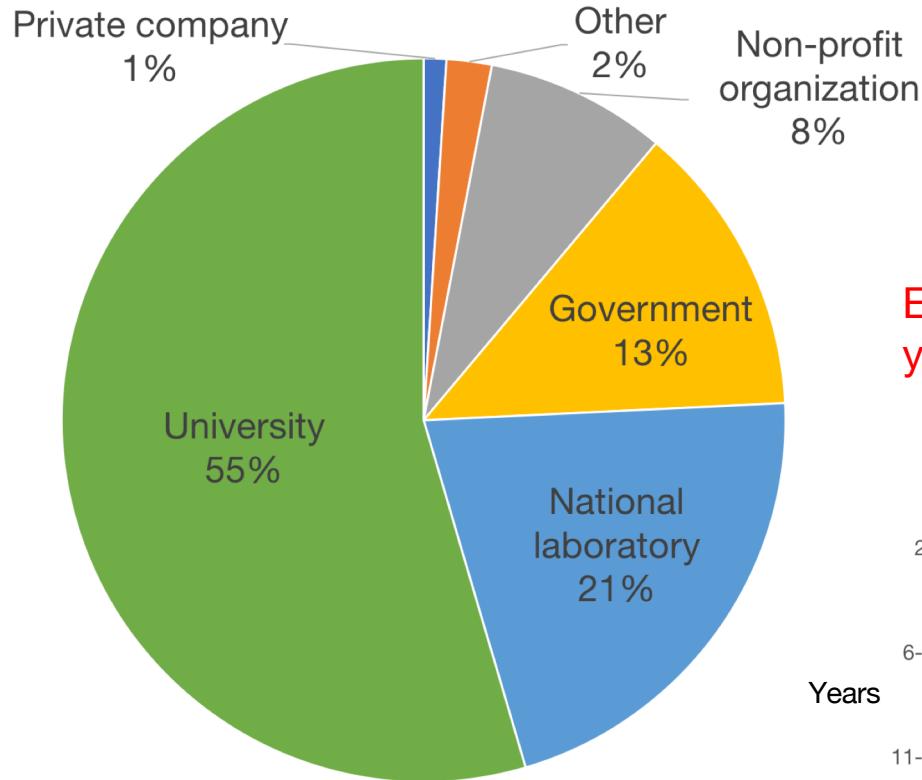
Consider themselves a professional software developer: 43%
Are part of a dedicated Research Software Group: 32%

How did you learn your RSE skills?



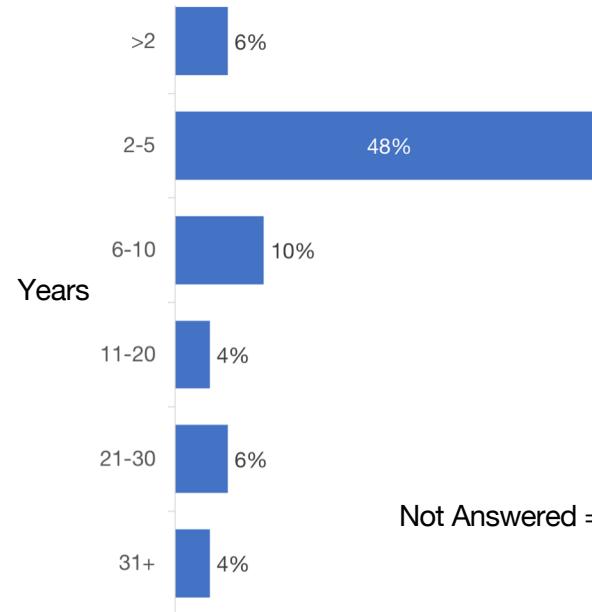
Current Role - Employment

Type of current employer organization?

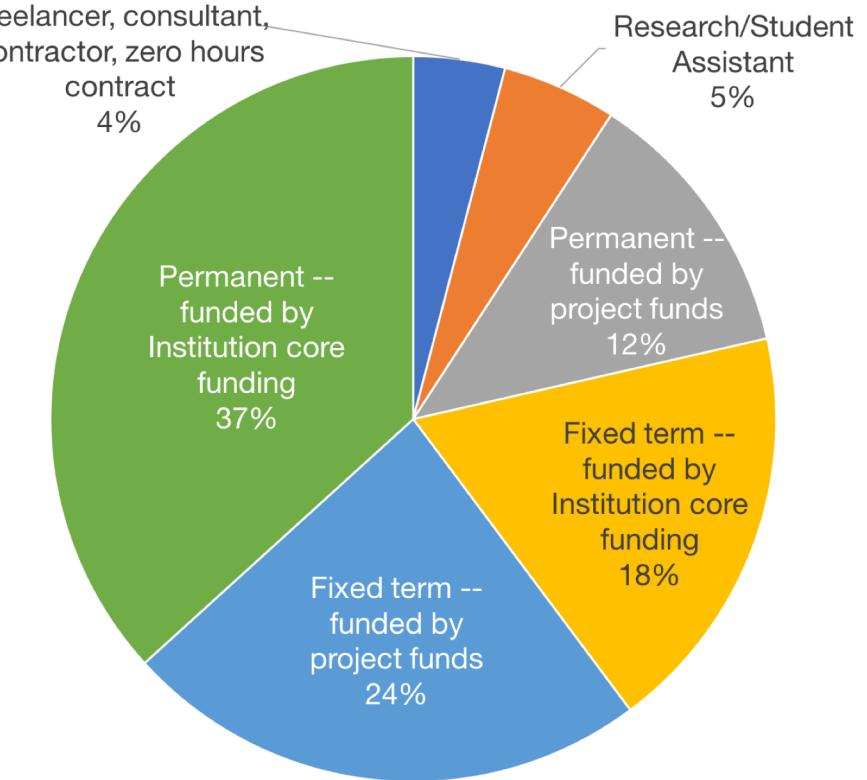


Work full time:
94%

Expected duration of your current position?

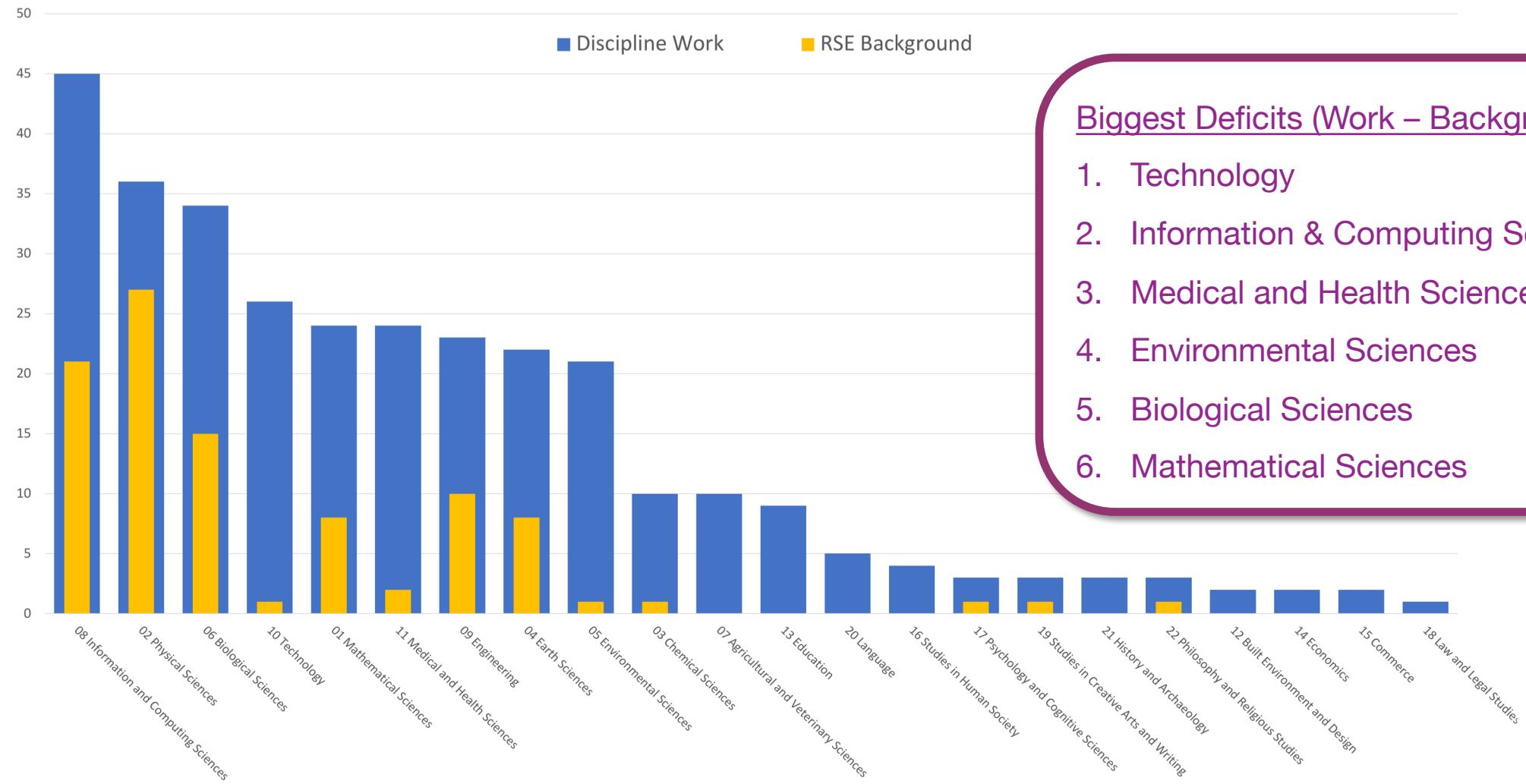


What is the nature of your current employment?



Current Role – Work: Disciplines

The background disciplines of RSEs and the disciplines in which they work?

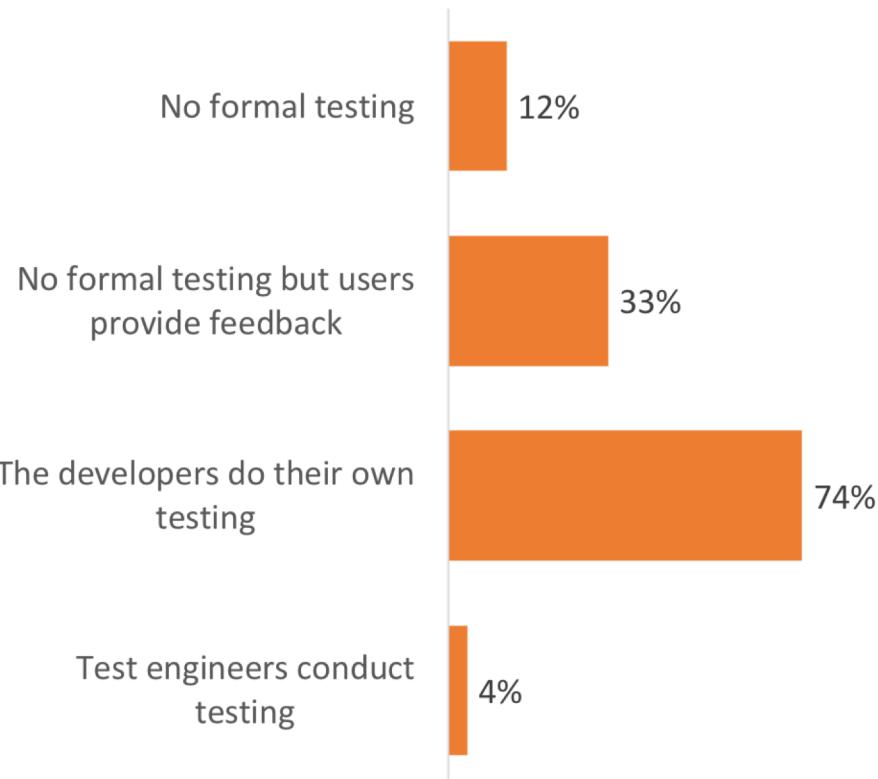


Biggest Deficits (Work – Background)

1. Technology
2. Information & Computing Sciences
3. Medical and Health Sciences
4. Environmental Sciences
5. Biological Sciences
6. Mathematical Sciences

Current Role – Work: Testing & Training

How are your projects typically tested?



How do you get RSE training?

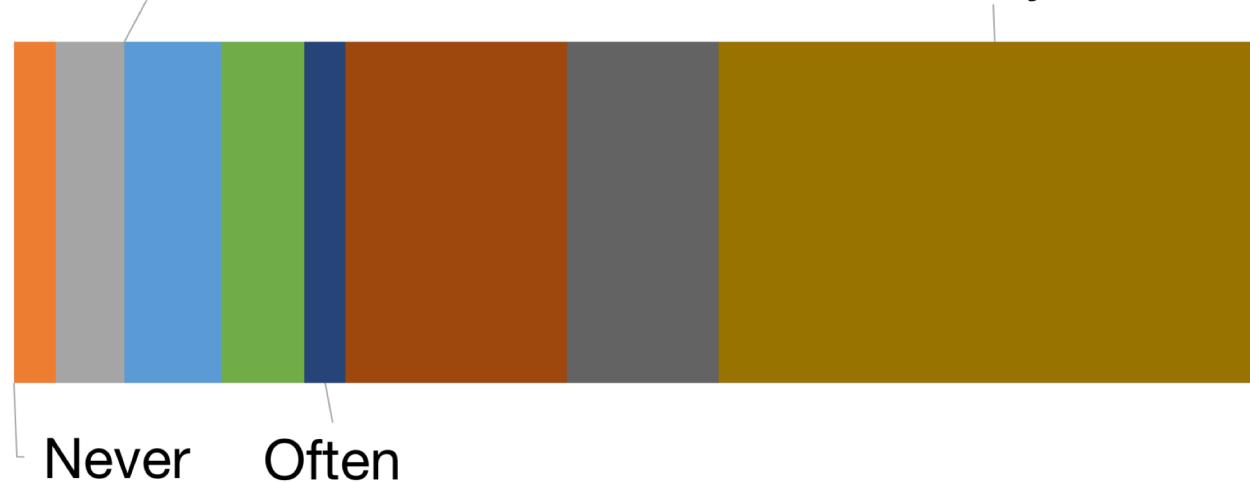


Current Role - Tools

How often do you use open source software?

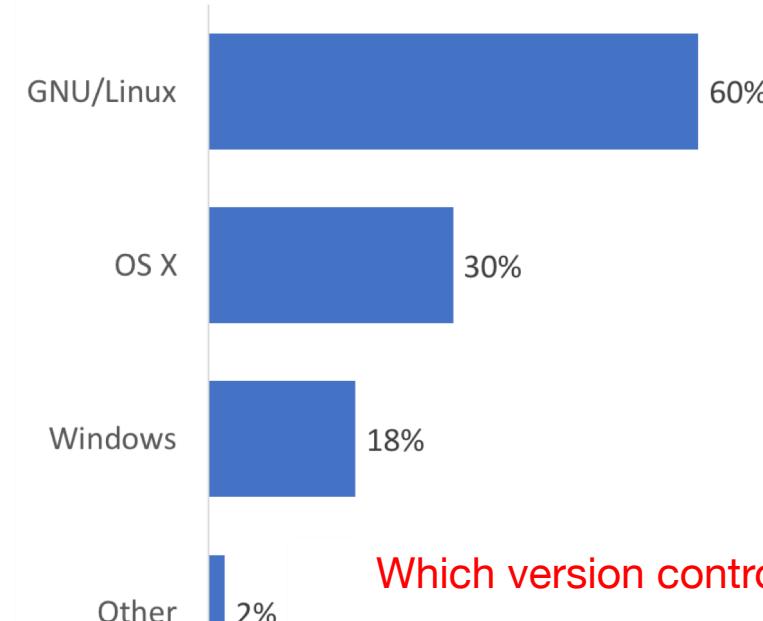
Sometimes

Always

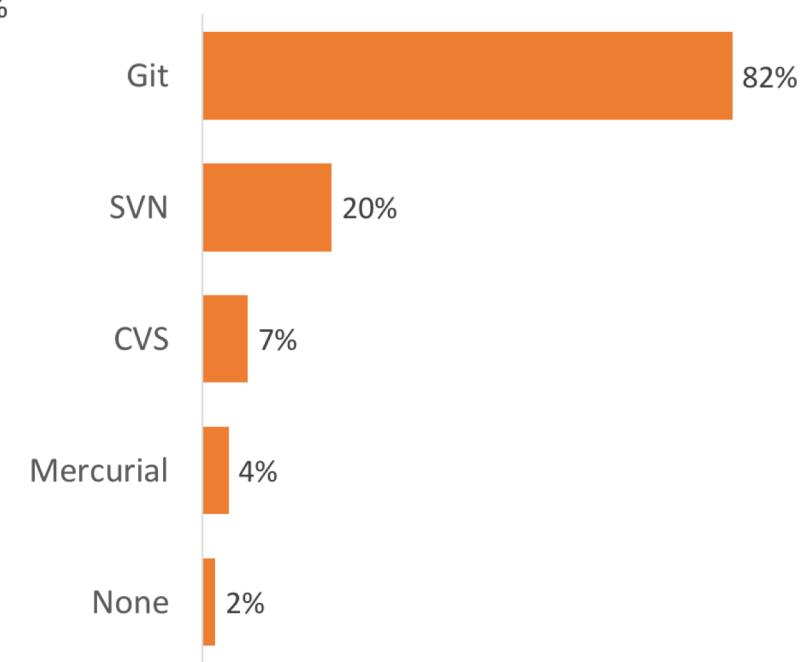


Open Source - Often to Always:
70%

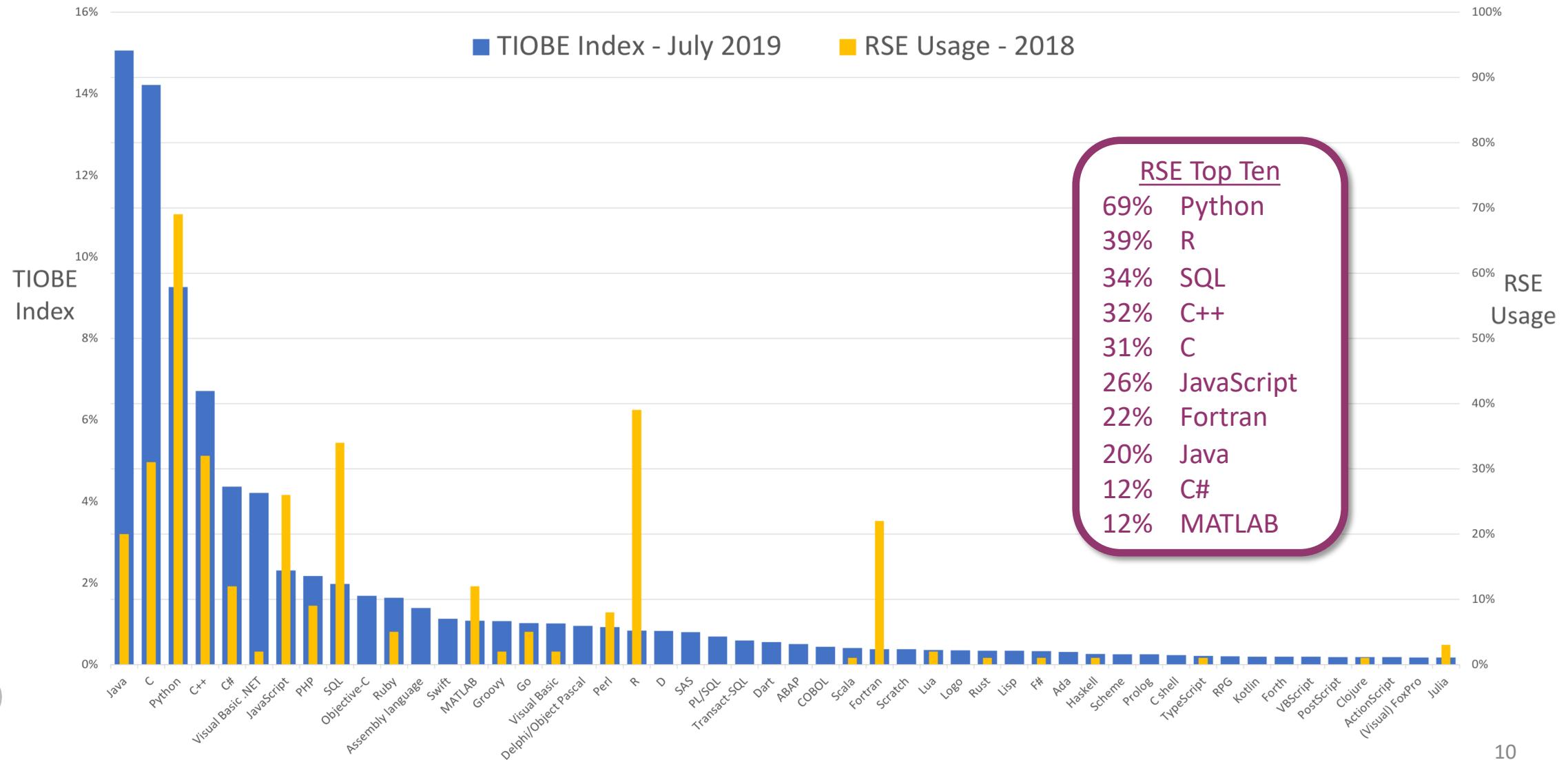
Which operating systems do you use?



Which version controls do you use?

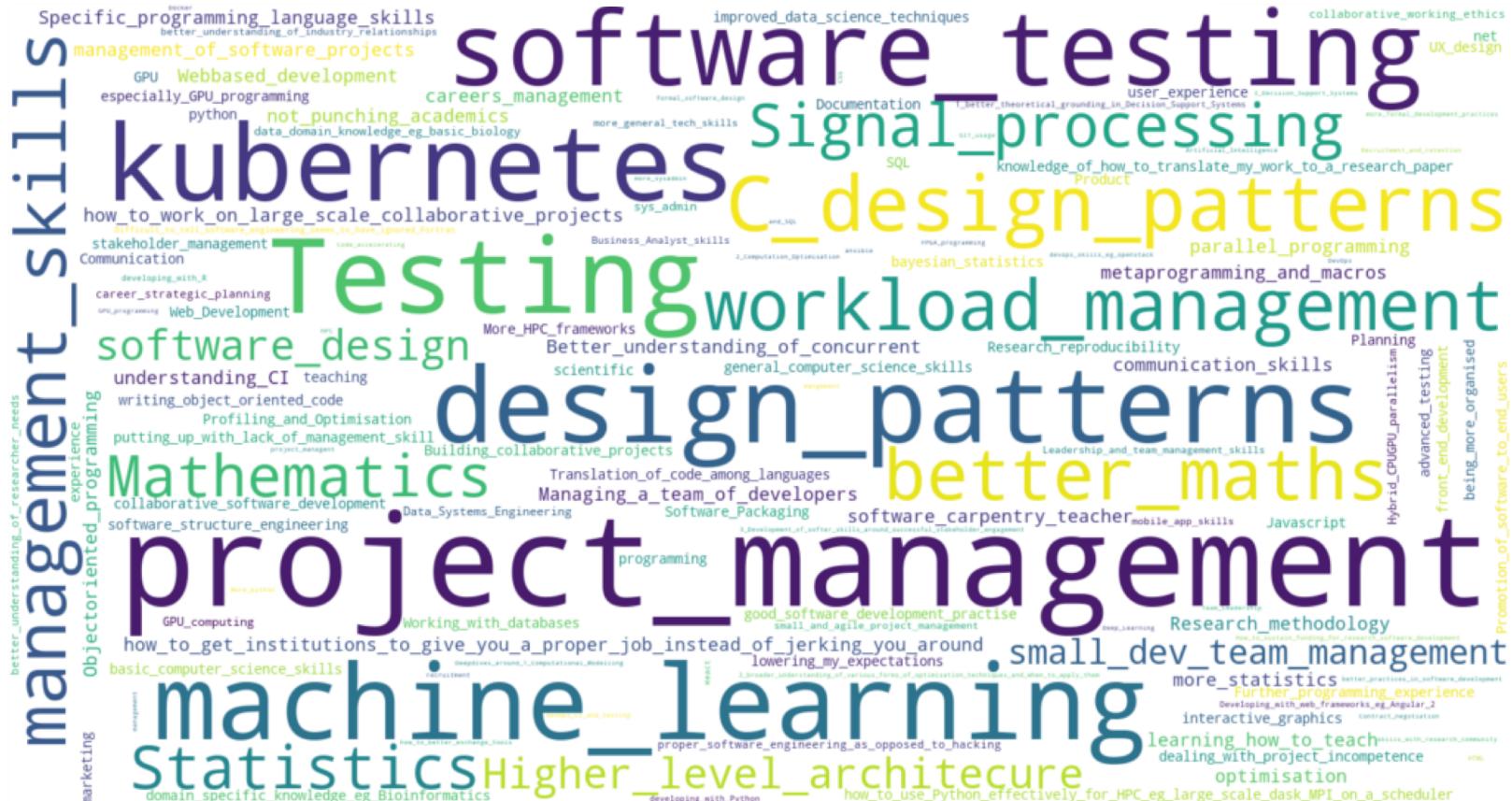


Current Role – Tools: Languages



Future - Skills

Which RSE skills do you want to improve?



Top Skills to Improve

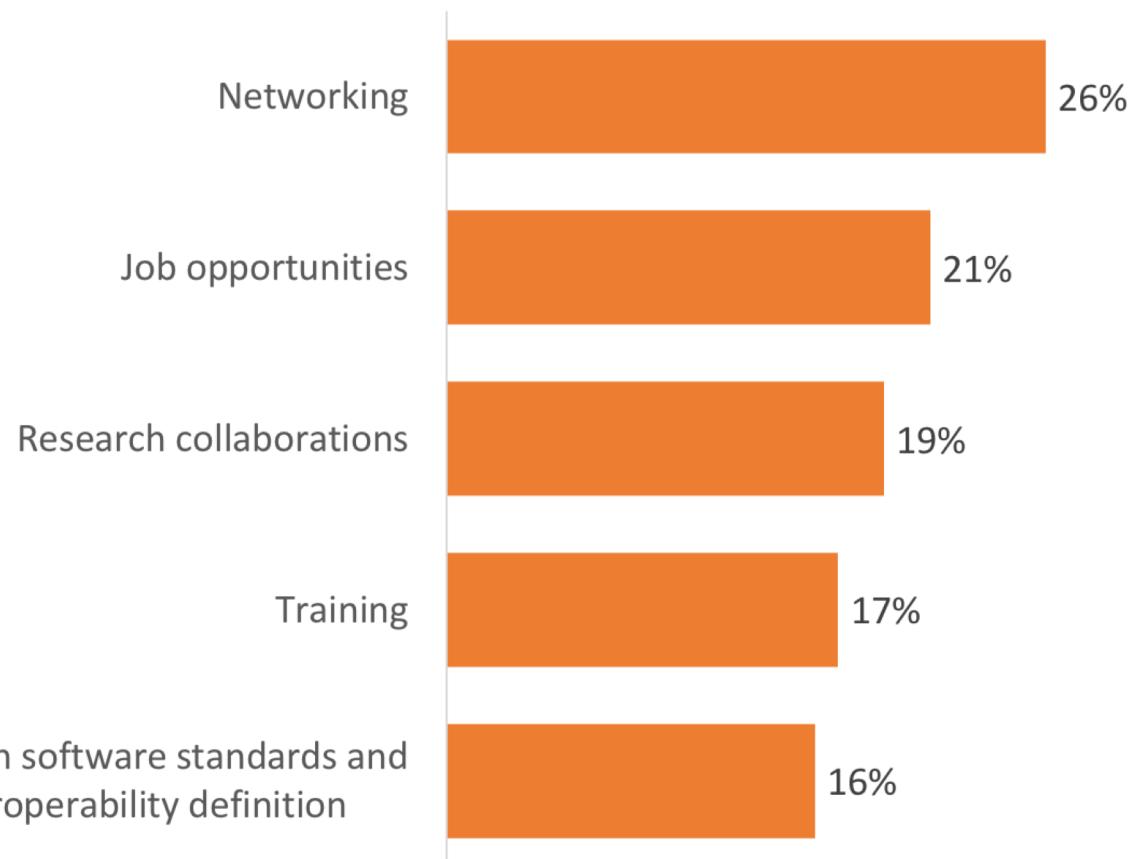
1. Project & Management
2. Software Testing
3. Software Design
4. Machine Learning
5. Kubernetes

Future – RSE Association

Are a member of an
RSE association:
12%

Would like to attend a conference about
software development in academia:
57%

What would you hope to get out of an RSE association?



Thank you

Questions?

Nicholas May

nicholas.may@rmit.edu.au

@eResEngineer

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<https://rse-aunz.github.io/>
rse-nz-au@googlegroups.com
@rse_aunz