

Early Career Researchers in Aotearoa: Safeguarding and strengthening opportunity after COVID-19

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Authorship statement

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The discussion paper is the work of many, published under the auspices of the Early Career Researcher (ECR) Forum of Royal Society Te Apārangī. The discussion paper draws from several sources of data (including data from the Census, educationcounts.govt.nz and a survey of ECRs conducted by the ECR Forum) and collates the views and ideas of participants in an ECR Forum-convened event held on 8 May 2020. Nissen, Naepi, Powell, Baker, Bolton and Stewart are committee members of the ECR Forum. This is not a position paper of Royal Society Te Apārangī.

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About the Early Career Researcher Forum

Royal Society Te Apārangī's Early Career Researcher (ECR) Forum seeks to represent the national voice of New Zealand's ECR community and celebrate their achievements and contributions in the fields of physical, biological, and social sciences, and the humanities.

The Forum is dedicated to engaging New Zealand ECRs on the issues important to them and fostering a collaborative, communicative, and respected community under the auspices of Royal Society Te Apārangī. This includes the mandate to: provide New Zealand ECRs opportunities for personal and professional development; provide access to national and international, cross-disciplinary interaction and networking opportunities; promote diversity and equality in early career research in New Zealand and abroad; promote, engage, and celebrate the research contributions of New Zealand's early career researchers; and, provide a forum for the discussion of issues and opportunities of relevance to ECRs within New Zealand.

Executive Summary

Early career researchers are critical to an innovative, connected and equitable research sector in Aotearoa New Zealand. It takes a long time to grow research capability and significant investment. Yet it can also be lost abruptly. To ensure we do not lose this research capacity, it is vital that we safeguard roles and support for early career researchers in the current COVID-19 situation.

Early career researchers are highly valuable to Aotearoa New Zealand

As outlined in the accompanying Fact Sheet: [The ECR population in Aotearoa](#), early career researchers are highly trained individuals who participate in and grow our research sector.

1. Early career researchers contribute across many sectors including government, private sector and universities.
2. Their research skills are crucial for understanding and responding to the social, cultural, environmental and economic challenges of our time and place.
3. They represent a changing and more diverse research workforce, and are vital to the international connectivity of our research sector.

There have been persistent issues facing early career researchers for some years now

As discussed in the [Key Issues and Concerns for ECRs](#) section, ECRs enter a job market that is increasingly uncertain and precarious.

1. After graduation many early career researchers hold multiple short-term, temporary positions, largely as a result of the competitive short-term funding environment.
2. Māori and Pasifika early career researchers are more likely to be in this insecure employment, as are women of other ethnic groups.

3. High turnover and uncertainty in the early career research environment can make it difficult to build independent research pathways.
4. Going abroad for postdoctoral employment has become a necessity for many Aotearoa New Zealand-trained PhD graduates, but this is not feasible for some researchers, for instance those with young families or those building research capacity with their communities in Aotearoa.
5. There is often a lack of clear pathways for PhD graduates to non-academic positions.

COVID-19 is exacerbating many of these unresolved issues for early career researchers

Due to their insecure position in the job market, early career researchers are particularly exposed to changes post-COVID in the research sector.

1. Many universities and other research institutes have cut casual and fixed-term positions to save costs, as they have weak legal protection and few employment benefits.
2. There are also freezes on appointments, which are crucial for ECRs who have short-term contracts ending soon.
3. Domestic and international funding rounds have become more volatile in the wake of COVID-19.
4. New Zealand-trained researchers will have difficulty accessing the international job market due to travel restrictions.

Tihei mauri ora!



Executive Summary continued.

There is a risk that some early career researchers will exit the sector post-Covid

Despite their wish to contribute to the research sector in Aotearoa New Zealand, it seems likely some early career research positions will be lost in the current COVID situation.

1. The risk is particularly acute for Māori, Pasifika and women scholars who are more likely to be junior and have insecure employment.
2. This loss is particularly likely in the university sector, which is especially exposed to border closures.
3. Cuts to short-term and part-time roles may mean it will not be viable for people to be able to continue their research, as PhD stipends are often set below even minimum wage.
4. If research pathways are lost then it can be very difficult to re-enter the research workforce.

Once lost, this research capacity and capability will take years of investment to replace

It takes years of investment to build an equitable, innovative and connected research sector, but those gains can be lost quickly.

1. Research is showing its crucial role in informing government policy and strategy in the current COVID situation.
2. Developing this research capacity involves significant and continuous investment over time from the New Zealand government, as well as from industry, community, family and individuals.
3. The potential loss of early career researchers represents a reduction of future research and innovation potential in Aotearoa New Zealand.
4. It also limits the opportunity to grow a more diverse research workforce which is fed by the early career pipeline.

It is important measures are taken to safeguard early career researchers

To encourage collaboration, opportunity and sharing of resources, Supporting ECRs in Aotearoa poses a series of interrelated discussion questions for government, research institutes, funding schemes and industry. These are centred around three core concerns:

1. How can ECR roles and opportunities be safeguarded and strengthened?
2. What funding and other support can be (re)allocated to ECRs?
3. How can ECRs be supported to transition to stable careers in a variety of sectors?

**Early career researchers
"represent a changing and
more diverse research
workforce, and are vital to the
international connectivity of
our research sector."**



Fact sheet:

The ECR population in Aotearoa

Early careers researchers are the future of New Zealand's innovative research community. Working with established researchers in universities, government and private industry, ECRs push the boundaries of knowledge and science in ways that are beneficial to all of society.

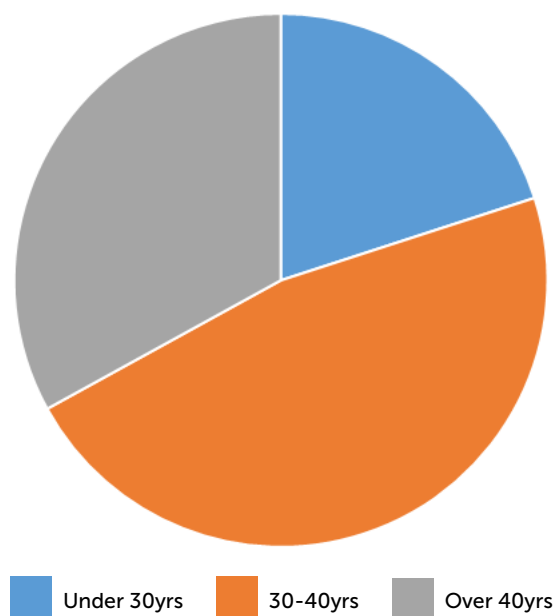
Their work seeks to understand the social, cultural, environmental and economic challenges of our time and place, and to have the difficult, but necessary conversations that aim to improve our local, national and international communities.¹

There is no universal definition of 'early career researcher'. Operationally, Royal Society Te Apārangi, defines an early career researcher as anyone within 10 years of completing their highest research qualification, normally (but not necessarily) a PhD. In practice, definitions are contextually dependent and varied. The label 'early career researcher' is commonly used in the research sector at large and, accordingly, we adopt the term here.

Early career researchers are crucial for diversifying the future research workforce

- More women than men are early career researchers. Between 60-65% of early career researchers are women, and tend to be under 30 or over 40, likely reflecting childcare responsibilities.
- 6-7% of early career researchers are Māori and 1-2% Pacific. While this is reflective of wider inequities within the sector, it is important to recognise the growing number of Māori and Pacific peoples enrolled in PhDs who will soon be entering the early career workforce.²
- There is a minority but still sizeable proportion of early career researchers that are Asian (5-10%) and MELAA (Middle Eastern / Latin American / African) or other (5%).

Age of ECRs



60-65% Women



6-7% Māori



1-2% Pacific



56% Born overseas



73-90% Want to remain in Aotearoa long term

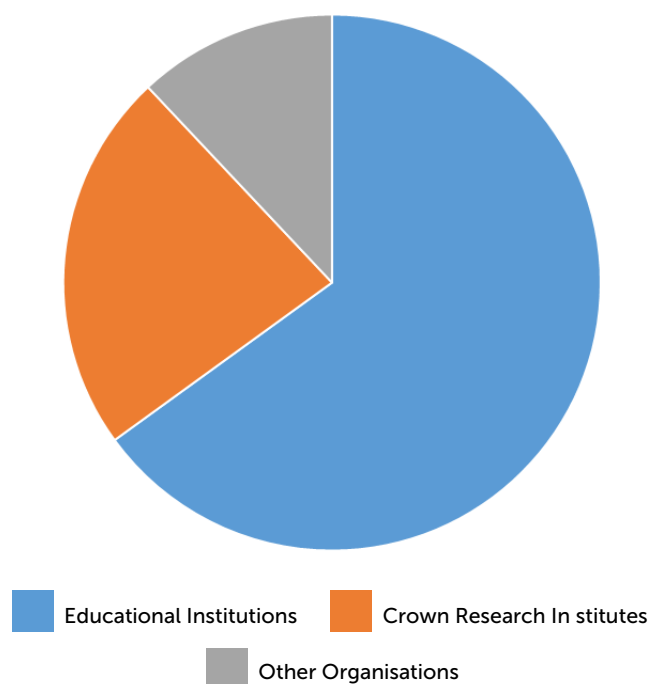
Early career researchers are a source of skills, experience and connectivity

- ECRs contribute to several sectors in Aotearoa. 65% are employed at an educational institution, 23% at a CRI and 12% at other institutions, including government ministries, commercial, iwi / hapū or non-profit organisations.
- Many ECRs are coming into research with significant life and work experience. At least 4 in 5 ECRs are older than 30, and up to a third are 40 years of age or over. Māori and Pacific researchers are more likely to have begun PhDs later.
- Early career researchers bring significant international experience and connections. Up to 56% of early career researchers are born overseas, with 41% having lived in New Zealand for fewer than five years.
- ECRs want to contribute to Aotearoa. 73% would prefer to stay in Aotearoa long-term; up to 90% in fields such as Māori, Pacific peoples and Indigenous Studies.
- Besides their research, ECRs also contribute to their organisations through managerial (19%), professional (36%), and outreach (26%) responsibilities.

Overall, opportunities for ECRs are insecure and in short supply

- There is a major disconnect between academic jobs available and PhD students trained in Aotearoa, with 1450 PhDs completed in 2018 alone and no increase in full-time equivalent academic staff employed at universities between 2002 and 2016 (5,700±200 total).
- Post-PhD employment for ECRs in the research sector is typically uncertain and fragmented, relying on short-term, contractual work. 72% of ECRs surveyed by the ECR Forum were in short-term positions.
- ECRs and PhD students express that there is little to no guidance out of the academic sector, even for ECRs who do not plan to attempt an academic career.

Where ECRs Contribute



He aha te wero, he aha hoki
te whāinga wāhi?

What is the challenge and
the opportunity?

Key issues and concerns for ECRs

Purpose

This section clarifies key concerns for ECRs, with the aim of promoting discussion across the research sector and government about how opportunities for ECRs might be safeguarded and strengthened as Aotearoa New Zealand recovers from COVID-19.

Impetus

The impetus for this work came from several sources:

- The Early Career Researcher Forum of Royal Society Te Apārangi (ECR Forum) published an article in the Spinoff highlighting the potential disproportionate impact of COVID-19 on ECRs.³ There have also been a number of additional op-eds highlighting the issues of early career researchers, and particularly for Māori and Pacific scholars, including by Naepi and McAllister,⁴ and Oldfield;⁵
- The Tertiary Education Action Group of Aotearoa (TEAGA) published an open letter to the Minister of Education to express concern of the downstream impacts of short term cost-savings, particularly the removal of casual or fixed term employment opportunities. As of mid-May 2020, the petition has been signed by over 550 researchers;⁶ and
- The ECR Forum hosted an online open Zoom event on 8 May 2020 to discuss the impacts of COVID-19 on ECR careers and possible responses. This was attended by over 180 ECRs throughout the country, from both public and private institutions, as well as New Zealanders based overseas.

Context

In the wake of COVID-19, the research sector is bracing for contraction and reorganisation.

Around the world, there are already indications that universities and other public research organisations are considering shedding jobs and freezing new appointments.⁷ In the corporate sector too, there are signs that research and development may contract as executives look for savings in non-core functions.

The COVID-19 response has demonstrated the importance of a robust research sector.

Science communicators, epidemiologists and other researchers are now well known by the public.

But ironically, the next generation of research leaders, usually referred to as Early Career Researchers (ECRs), are particularly exposed by the current situation.

In all industries, people entering the job market and those on fixed-term contracts tend to bear the brunt of unemployment crises. This is likely to be acute in the research sector, where short-term contracts and tight bottlenecks into permanent positions have become entrenched conditions for ECRs over several decades. The difficulties identified by ECRs post-COVID-19 are not unique to Aotearoa New Zealand. Similar discussions about the impact of COVID-19 on ECRs are also underway in Australia, the United Kingdom and elsewhere.⁸

Unless changes are made, COVID-19 disruption will intensify pre-existing problems with ECR employment pathways.

Insecure employment and an under-supply of research-focused jobs relative to the number of PhD graduates was entrenched before the pandemic.⁹ Recent analysis by Naepi et al. (2020) has highlighted that these issues are particularly amplified for Māori and Pacific scholars.¹⁰ We are seeing these conditions brought into stark focus with COVID-19.

Why are ECRs important in Aotearoa?

Secure ECR career pathways are essential for addressing equity for Māori and Pacific peoples

While ECRs are reflective of the current academic workforce for Māori and Pacific peoples it is important to recognise the growing number of Māori and Pacific peoples enrolled in PhDs who will soon be entering the early career workforce¹¹. Without these important research development spaces, we are unlikely to see, overall, the faculty numbers of Māori and Pacific peoples change in the coming years. Ignoring the role of early career research positions for Māori and Pacific development is likely to further entrench the current system inequities.¹² This is particularly pertinent in relation to Māori ECRs. Te Tiriti o Waitangi (the Treaty of Waitangi) is New Zealand's founding document and ensures Māori rights to equity and parity of outcomes. As noted by McAllister et al (2019) all of New Zealand's universities have equity and/or diversity policies and strategic frameworks relating to Māori students and academic staff. However, they are currently falling short of their stated goals and principles which they publicly endorse. Pacific peoples are a key priority area for government, including within the education and research sectors and as such systemic inequity needs to be addressed.

ECRs are crucial for diversifying the future research workforce

ECR positions provide a valuable and much needed opportunity for researchers to hone their skills in preparation for senior research positions. Currently the New Zealand research workforce does not accurately reflect our population. Beyond equity concerns is the evidence that diverse research teams produce more novel research¹³ which is important for the growth of the New Zealand economy post-COVID-19. As such we must consider the potential of the ECR community to diversify not only our current research sector, but also our future research sector.

For example, the strong representation of women in the ECR population stands in contrast to a widely acknowledged problem of under-representation of women in permanent, full-time roles and in senior research roles.¹⁴ Changes to early career research roles will have ramifications for addressing current gender inequities, but it also highlights that women in the research sector are also currently in roles that are more precarious.

ECRs are a growing part of New Zealand's workforce

The proportion of the New Zealand workforce holding a higher degree has increased significantly over the past two decades, including those with PhD qualifications. In recent years, there has been a net rise of over 1,000 PhD graduates per annum in the work-age workforce in this country.

The majority of ECRs were surveyed by the ECR Forum in 2018 had a strong desire to live here and contribute to research in Aotearoa New Zealand. 3 in 4 respondents said that they would prefer to stay in Aotearoa New Zealand in the medium to long term. In some research fields, such as in Māori, Pacific peoples and Indigenous Studies, over 90% of respondents intended to stay in Aotearoa.

For some time now, the bulk of newly graduated PhDs have been employed beyond the university sector. In 2002 there were 490 doctoral completions in New Zealand universities, but by 2013 this had risen to an average of about 1350 per year, and this general level has continued until at least 2018 (with about 1450 completions). At the same time, the number of full-time equivalent academic staff in New Zealand universities has remained almost constant for the last 15 years – between 2002 and 2016 it was typically 5,700±200. The most recent detailed data, from the 2013 Census, indicates that the

education sector employed 6,300 people with a doctorate, followed by professional services (3,500), the health and social assistance sectors (3,300), and public administration (1,000). Most were paid employees (14,000), but 2,000 were self-employed and 1,000 were employers.

ECRs are highly valuable to the research sector and the nation

ECRs are at the cutting-edge of their fields. In scientific fields in particular, they are a crucial part of large research teams, bringing new ideas and enthusiasm. Within the research community, it is common to think of ECRs, and post-doctoral fellows in particular, as the 'workhorses' of the research sector. While research productivity is one dimension of this, another is the role of ECRs in capability building. The Catalyst Fund, for example, underlines the importance of ECRs for the international connectivity of New Zealand's research sector by supporting various incoming and outgoing fellowships. Such fellowships are meant to create spill-over benefits for research groups, centres and the research sector at large.

Besides their research contribution, ECRs contribute to organisations in a number of other ways. 2 in 5 respondents of our survey had teaching responsibilities as part of their role. This was particularly in the social sciences, humanities, commerce and tourism research fields, relative to the natural and physical sciences. Contrary to the 'early career' label, 2 in 5 ECRs surveyed were in managerial roles, with the likelihood of these responsibilities increasing with the years after the highest degree awarded. 1 in 3 respondents reported professional responsibilities, and 1 in 4 undertook outreach activities.

**He tirohanga whāti, he tirohanga
arotahi, he tirohanga whānui.**

**Looking closely, being focussed,
looking broadly.**



Concerns before COVID-19

Post-PhD opportunities for ECRs are insecure and in short supply

Despite their contribution to the workforce, ECRs are often employed in insecure forms of employment. Previous research has highlighted that the most satisfied early career researchers are those who feel as though they have some control over their working conditions. However, this security is often absent, and many ECRs are on an “endless loop” of short-term contracts.¹⁵

Data is unclear about the extent of this precarious employment within the research sector. However, indications are that it is significant for ECR researchers, and that patching together casual and fixed-term employment is becoming the norm for an increasing number of years following a PhD. In the survey conducted by the ECR Forum a majority indicated that they were on fixed-term or casual contracts, either as a research fellow or postdoctoral fellow (66%) or as a research assistant (6%). The funding for these positions comes from a variety of sources, but is often of a year or less duration, and part-time, giving very little security to these researchers. Our study aligns with other surveys. For example, the University of Auckland Faculty of Science Postdoctoral Society conducted a (pre-COVID) survey and found that 60% of members were on contracts shorter than 2 years, and 60% of those had less than 1 year remaining on their current contracts. Similarly, a University of Auckland Faculty of Medical and Health Science Post-Doctoral Society survey (also pre-COVID) found 91% were on fixed-term contracts, with a third of them with a year or less left. It also needs to be said that to make the most of these positions, contractors often invest many unpaid hours to push their research contributions, but these positions often provide limited scope for career progression.

There are very few funding opportunities for ECRs and of the opportunities that exist, some funds do not include salary costs or, if they do, not all of the salary is covered (e.g. Marsden Fast Start typically covers 30-40% of a full-time salary, plus >100% overhead costs; if one's research costs are higher, the portion for the salary is lower). Many of these post-doctoral positions are also what some describe as ‘dependent’ positions,¹⁶ in that they are funded by a grant that has been obtained by a senior researcher. The research carried out is therefore strongly determined by the Primary Investigator. This contrasts independent positions that directly fund the early career researcher, such as the former New Zealand Science, Research and Technology (FRST) Postdoctoral Fellowships. There are benefits to both types of post-doctoral positions, but opportunities for the latter have in recent years been significantly reduced in New Zealand. This is one of the drivers for Aotearoa-trained PhD graduates pursuing postdoctoral positions overseas.

PhD programmes do not typically prepare graduates for careers outside universities

Non-academic research positions for PhDs include those at Crown Research Institutes (CRIs), government and non-government organisations, and at private businesses that engage in research and development. However, these pathways are not always readily available to newly-graduated PhDs. The CRIs, formed twenty-five years ago, are Crown-owned enterprises charged with conducting applied and fundamental research. It is common for ECRs to be brought in on short-term contracts for grant-funded research projects, but be unable to find permanent employment unless they are involved with more highly-valued commercial work, have particular skill sets or expertise or are part of teams who secure longer term research funding (for example, through MBIE Endeavour or National Science Challenges).

The private sector funds more than half of R&D spending in Aotearoa New Zealand¹⁷ (although the total is still well below the OECD average).¹⁸ However, graduates have expressed that there is often little guidance into the non-academic research sector, with new PhDs simply lacking the contacts to find these jobs. Anecdotally, companies may perceive PhDs as unsuitable, and where this transition is made, it is common to spend an extended amount of time (not uncommonly years) making the adjustment.

Concerns in the wake of COVID-19

Full-time domestic employment opportunities are likely to get even more scarce

With the prospect of decreased revenue, there are strong indications that universities and other public research organisations are considering freezing, or have already begun to freeze, new appointments, shed jobs, and increase their use of casual employment.¹⁹ In other public, private and philanthropic research organisations too, there are signs that research and development may contract as executives look for savings in non-core functions. Even prior to the emergence of the pandemic, Massey University had proposed to disestablish its entire science staff at the Albany campus as it sought to centralise teaching by subject, with many researchers who thought they had finally found a permanent position suddenly facing redundancy.²⁰

These reforms – in particular those relating to the casualised research workforce – will worsen the precarious conditions for early career researchers. Across all sectors, people entering the job market and those on casual contracts often suffer the worst part of economic crises. This is likely to be of critical consequence in the research sector, where the ‘pipeline’ into permanent positions has become rapidly blocked and broken.²¹ The economic response to COVID-19 is likely to place far more pressure on this pipeline.

In this context, early career researchers are faced with a particular dilemma. Those who are attempting to enter the job market – including those Māori and Pacific researchers who are currently completing PhDs – are likely to encounter organisations that have employment freezes, fewer (if any) permanent positions available, and subsequently much tougher competition.

Those early career researchers who are employed on fixed-term or casual contracts, like tutors, lab or research assistants, may currently still be employed, but many of their contracts will be completed within a year or less and they

face an uncertain future. Cancellation of funding rounds (e.g. MBIE Smart Ideas Funding 2020) places this group in a particularly precarious situation, since their employment often relies on it. Moreover, many ECRs do not have access to labs, or have inadequate working spaces at home, as well as many members having children and other carer responsibilities. Some research fields have unofficial moratoria on research for the foreseeable future because of possible risks. Overseas fieldwork, for example, is functionally impossible in the near future. Also, many ECR-focused funds have a time limit on eligibility (i.e. certain number of years post-PhD) and it is not certain that such funds will take COVID-based disruption into account.

Casual and fixed-term positions are also tempting targets for those looking to make quick cuts, as they have weak legal protection and few employment benefits. As noted earlier, ECRs often rely on multiple part-time and casual contracts to create an income to meet expenses (such as short-term tutoring or teaching contracts), and loss of one or more of these positions may make it difficult for them to financially support themselves. Similarly, for those students completing PhDs, cuts to short-term and part-time roles may mean it will not be viable for people to be able to continue to financially support their studies. Current stipends for PhD and Masters students, including those set by the Marsden Fund, are set below minimum wage²² even if students are budgeted to work full-time on the project.²³ Many will also already have significant student debt.

International employment opportunities for New Zealanders will likely decrease and become more competitive

Completing one or several post-doctoral positions overseas, a traditional pathway for PhD graduates from Aotearoa New Zealand, is now far more challenging with increased travel restrictions and an inability to access contracted research funding sources overseas. With COVID-19 affecting post-doctoral opportunities

outside Aotearoa New Zealand, the ability of domestically trained PhD graduates to secure employment abroad will be much more difficult. This undermines one of the main pathways to secure employment for ECRs. Conversely, there may also be an influx of ECRs from overseas. Estimated job loss from universities in Australia from the COVID-19 situation is as high as 21,000. Many may be New Zealanders looking to move back, but there may also be significant 'push' factors (eg. funding cuts, political circumstances) leading more overseas nationals to consider competing for work in Aotearoa New Zealand.

Investments in research capabilities will likely be lost as ECRs exit the research workforce

Conversations amongst ECRs in New Zealand are reflecting the reality that many feel that "this is it": we are preparing to lose our jobs, attempting to reconcile nearly a decade of education resulting in unemployment, and struggling to comprehend the loss of knowledge and expertise from New Zealand's research sector.

While those with permanent positions may be able to weather these changes, many ECRs are very exposed. Existing funding may cover their research work for the next months, but many of the short-term contracts for these ECRs will be finished within the next six to eighteen months. With unstable funding and institutional cost-saving measures in place post-COVID, opportunities to renew or become employed on a new contract are likely to be significantly reduced. Without intervention, it seems likely that many of these ECRs, despite their wish to contribute to New Zealand's research sector, will look to exit the research workforce.

This is potentially a considerable loss to Aotearoa New Zealand. While these ECRs are likely to continue to be valuable to the communities and industries they engage with, they have also financially and personally invested many years to develop specialised expertise and experience. This embedded knowledge is often critical within wider research teams to carry out research and publishing that builds the international profile of New Zealand's research and higher education sector. And as noted earlier, the transition beyond the research sector can also be fraught for individuals with PhDs, with their capabilities and skills often not widely recognised.

Inequalities and inequities within the research sector are likely to be further embedded in the absence of extra support for ECRs

If we are to stand a chance of making the research workforce reflect the makeup of society today, not least the exclusion and under-representation of Māori and Pacific researchers in Aotearoa New Zealand, we need to encourage, not close down, a thriving cohort of early career researchers.

Efforts to address the exclusion and under-representation of Māori and Pacific researchers will be undermined if Māori and Pacific ECRs experience further difficulties in finding secure employment. This could result in a missing cohort of Māori and Pacific ECRs whose absence will flow through, over time, to senior ranks and leadership positions, and will diminish the ability of universities and other research institutions to fulfil their commitments to Te Tiriti o Waitangi. It will also provide a significant barrier for the production of mātauranga Māori and Pacific knowledge, thus further reproducing dominant Western and colonial knowledge systems.²⁴

In addition, there is every reason to fear that the uneven impacts of a contracting research workforce will favour segments where women are less well represented, meaning junior cohorts of women researchers will be locked out of stable careers. It has long been recognised that more women than men are the primary caregivers of children, alongside their research activities, and affects their output.²⁵ Reports are already emerging of gender disparities in research journal submissions as lockdowns kick in and women take up additional caring responsibilities.²⁶

There are also equity issues around ECRs with disabilities and chronic illness that may be exacerbated in the COVID response, as physical distancing and other aspects of post-COVID recovery will mean uneven and longer-lasting implications for certain people.



Supporting ECRs in Aotearoa:

Discussion points for the research sector and government

| 1) How can ECR roles and opportunities be safeguarded and strengthened? | |
|---|--|
| Government | What provision is there for requirements for ECRs on review or assessment panels and in research through ministerial channels? |
| Universities, CRIs and other research institutes | Has analysis been undertaken to consider the impact of any future employment restructuring on ECRs, including those on non-permanent contracts? |
| | Are there special provisions to ensure Māori, Pacific, women, gender minorities, and researchers with disabilities and chronic illnesses are protected as outlined in the State Services Pay Restraint Letter? |
| | Do ECRs have roles on organisation research committees and are given substantive opportunities for input into relevant institutional policy development, including those on non-permanent contracts? |
| Funding schemes | What options are there for schemes applicable to ECRs not on permanent, full-time contracts to be ring-fenced and expanded? |
| | What opportunities are there to create co-contribution schemes that allow for employment of ECRs? |
| 2) What funding and other support can be (re)allocated to ECRs? | |
| Government | Has publicly-funded research in NZ got the balance between competition and certainty right? |
| | How can funding for ECRs be ring-fenced in the Performance-Based Research Fund (PBRF) funding and any post COVID-19 financial support for universities, CRIs and other research institutions? |
| Universities, CRIs and other research institutes | Is ECR funding being left 'out of scope' in any cost-cutting measures post-COVID? |
| | What provision is there within Strategic Science Investment Funding (internal CRI funding) to ring-fence support for ECRs to develop their research with other established researchers? |
| | Could overhead rates on post-doctoral positions be capped or reduced to help increase the number of research positions available for ECRs? |
| | What alternative ECR funding sources are being expanded post-COVID in recognition of potential loss of other casual and temporary contracts, such as research or writing fellowships? |

| | |
|--|--|
| Industry | What opportunities are there to create co-contribution schemes that allow for employment of ECRs? |
| Funding schemes | How could existing funding schemes be refocused towards ECRs? For instance: <ul style="list-style-type: none"> • Refocusing the Catalyst Fund, given restrictions on travel, towards ECR fellowships to support international collaboration and connectivity; • Reallocating funding from MBIE Smart Ideas towards smaller Endeavour grants that require a certain proportion of ECRs to be leading the project; • A type of 'applied Marsden' that enables ECRs to build projects that they can co-lead. |
| | Can the funding cap be raised on schemes applicable to ECRs (eg. Marsden Fast Start has remained at \$100,000 p/a for a long time, eroding its value in real terms)? |
| | What is required for the stipends for Masters and PhD students as full-time workers on grants to be set at least at the equivalent of after-tax minimum wage? |
| 3) How can ECRs be supported to transition to stable careers in a variety of sectors? | |
| All | What provision is there for collaborations between universities and the public and private sectors to develop more structured support and training for pathways outside academia? |
| Universities, CRIs and other research institutes | Is there training within PhD programmes ²⁷ for careers outside of academia, reflecting the career pathways of most graduates? |
| | How can access to libraries and other institutional services be extended to recently graduated ECRs? |
| Industry | What are the possibilities for integrated work-study programmes for PhD students who are or may become employees, focusing on research relevant to current industry challenges? |

**Mā mua ka kite a muri,
mā muri ka ora a mua.**

Those who lead give sight to those who follow,
those who follow give life to those who lead.
It acknowledges and values the importance
of both the leader and the followers.
Both are essential.

Endnotes

1. Data presented in this factsheet draws on two recent surveys of ECRs in Aotearoa: (1) A survey conducted by the ECR Forum in mid-2018. The survey was open from May 6th 2018 to July 31st 2018, and received 709 responses; and (2) Sutherland, K., Wilson, M. & Williams, P. (2013) Success in Academia? The experiences of early career academics in New Zealand universities, Ako Aotearoa, Wellington, <https://ako.ac.nz/assets/Knowledge-centre/NPF-10-023-Success-in-Academia/RESEARCH-REPORT-Success-in-Academia-The-Experiences-of-Early-Career-Academics-in-New-Zealand-Universities.pdf> These data sources relate, primarily though not exclusively to ECRs employed outside of the private sector.
2. Naepi, S., McAllister, T. G., Thomsen, P., Leenen-Young, M., Walker, L. A., McAllister, A. L., ... & Suaaliia, T. (2020). The Pakaru 'Pipeline': Māori and Pasifika Pathways within the Academy. The New Zealand Annual Review of Education, 24, 142-159.
3. <https://thespinoff.co.nz/science/04-05-2020/covid-19-isnt-quite-the-boon-for-science-researchers-it-might-seem/>
4. <https://thespinoff.co.nz/atea/21-05-2020/as-universities-restructure-maori-and-pacific-researchers-are-being-put-at-risk/>
5. <https://www.stuff.co.nz/national/education/121527660/job-losses-threaten-the-quality-of-our-universities?fbclid=IwAR2hB9yTEL7FVnNIIlPLGuTxy72M0GRdE7xO7qbBJuDsks6vqtrzQW0Ns>
6. <http://www.teaga.co.nz/>
7. <https://www.theguardian.com/education/2020/apr/03/the-government-must-protect-universities-in-this-crisis-or-job-cuts-will-follow>
8. <https://www.smh.com.au/national/university-research-funding-under-threat-exactly-when-we-need-it-most-20200506-p54qdb.html>; <https://theconversation.com/more-than-70-of-academics-at-some-universities-are-casuals-theyre-losing-work-and-are-cut-out-of-jobkeeper-137778>
9. See for instance Childress, H. (2019). The adjunct underclass: How America's colleges betrayed their faculty, their students, and their mission. Chicago:University of Chicago Press; Sutherland, K. (2018). Early career academics in New Zealand: Challenges and prospects in comparative perspective. Cham: Springer; Massaro, M., Yogeewaran, K. & Black, A. (2012). Trapped in the postdoctoral world: Lack of postdoctoral opportunities in New Zealand forces emerging researchers to exit science or seek employment overseas. New Zealand Science Review, 69 (2), pp. 30-39.; Murray, M., Beban, A., & Walters, V. (2018). Editorial. New Zealand Sociology , 33(2), 1-8.; Stringer, R., Smith, D., Spronken-Smith, R., & Wilson, C. (2018). "My entire career has been fixed term": Gender and precarious academic employment at a New Zealand university. New Zealand Sociology, 33(2), 169-201.
10. Naepi, S., McAllister, T.G., Thomsen, P., Leenen-Young, M., Walker, L.A., McAllister, A.L., Theodore, R., Kidman, J., Suaaliia, T. (2020) 'The Pakaru 'Pipeline': Māori and Pasifika Pathways within the Academy', The New Zealand Annual Review of Education, 24, pp. 142-159.
11. Naepi, S., McAllister, T. G., Thomsen, P., Leenen-Young, M., Walker, L. A., McAllister, A. L., ... & Suaaliia, T. (2020). The Pakaru 'Pipeline': Māori and Pasifika Pathways within the Academy. The New Zealand Annual Review of Education, 24, 142-159.
12. McAllister, T. G., Kidman, J., Rowley, O., & Theodore, R. F. (2019). Why isn't my professor Māori? A snapshot of the academic workforce in New Zealand universities. MAI Journal: A New Zealand Journal of Indigenous Scholarship, 8(2).; Naepi, S. (2019). Why isn't my professor Pasifika. A snapshot of the academic workforce in New Zealand universities. MAI Journal, 8, 219-234.
13. Hofstra, B., Kulkarni, V., Munoz-Najar Galvez, S., He, B., Jurafsky, D., & McFarland, D.(2020) The Diversity-Innovation Paradox., Science Proceedings of the National Academy of Sciences 117 (17) 9284-9291; DOI: 10.1073/pnas.1915378117
14. Sutherland, K. (2018). Cultivating connectedness and generosity in universities: A view of early career academic experiences in Aotearoa New Zealand. On Education, 1(3), https://www.oneducation.net/wp-content/uploads/2018/12/10.17899_on_ed.2018.3.8.pdf
15. Massaro et al. 2012, p. 38.;Stringer, R., Smith, D., Spronken-Smith, R., & Wilson, C. (2018). "My entire career has been fixed term": Gender and precarious academic employment at a New Zealand university. New Zealand Sociology, 33(2), 169-201.
16. Massaro et al. 2012, p. 31.
17. <https://figure.nz/chart/wjW2DvOnrBqXxspL>
18. <https://www.stats.govt.nz/tereo/reports/research-and-development-in-new-zealand-2018>
19. <https://www.theguardian.com/education/2020/apr/03/the-government-must-protect-universities-in-this-crisis-or-job-cuts-will-follow>; <https://www.stuff.co.nz/national/education/121010508/coronavirus-nz-universities-face-huge-funding-shortfall-if-covid19-border-restrictions-stay>
20. https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12311627
21. <https://thespinoff.co.nz/atea/21-05-2020/as-universities-restructure-maori-and-pacific-researchers-are-being-put-at-risk/>
22. <https://www.employment.govt.nz/hours-and-wages/pay/minimum-wage/minimum-wage-rates/>
23. <https://www.royalsociety.org.nz/what-we-do/funds-and-opportunities/marsden/marsden-fund-application-process/submitting-a-proposal/2020-full-proposal-guidelines-for-fast-start-and-standard-applicants/>
24. Naepi, Sereana et al. The Pakaru 'Pipeline': Māori and Pasifika Pathways within the Academy. The New Zealand Annual Review of Education, [S.l.], v. 24, p. 142-159, <https://doi.org/10.26686/nzaroe.v24i0.6338>
25. Sutherland et al 2013.
26. <https://www.insidehighered.com/news/2020/04/21/early-journal-submission-data-suggest-covid-19-tanking-womens-research-productivity>
27. McAllister, T. G., Naepi, S., Wilson, E., Hikuroa, D., & Walker, L.A. (2020). Under-represented and over-looked: Māori and Pasifika scientists in Aotearoa New Zealand's universities and crown-research institutes. Journal of the Royal Society of New Zealand