



# Evaluation Report

2021 Investigator Grants 'Relative to Opportunity' Trial



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# Executive Summary

The National Health and Medical Research Council (NHMRC) is the Australian Government's key entity for managing investment in, and integrity of, health and medical research. NHMRC invests in the highest quality research and researchers, as determined through peer review, across the four pillars of health and medical research: basic science, clinical medicine and science, public health and health services research.

NHMRC allocates funding to researchers through a grant system that relies on peer review providing rigorous assessment of applications for funding to ensure transparency, probity and fairness of process. The [Relative to Opportunity Policy](#) (the policy) recognises that not all research careers are the same and requires peer reviewers to assess an applicant's track record 'relative to opportunity', taking into account circumstances that have affected the applicant's research productivity.

The policy was revised on 12 January 2021 based on feedback from NHMRC's advisory committees and the research sector. It clarified 'relative to opportunity' considerations (including personal situations such as disability and unemployment) and supplemented changes announced on 4 August 2020 to recognise the effects of the COVID-19 pandemic and other calamities.

Following consultation with the research sector and NHMRC's Research Committee, a new approach for collecting 'relative to opportunity' information for track record assessment was announced in a communique on 1 February 2021. This approach is intended to ensure that each applicant's track record and associated productivity are considered in the context of their specific career circumstances. It was trialled as part of the 2021 Investigator Grants round and required all applicants to provide:

- their career stage (years post-PhD) (this information was also collected in previous funding rounds)
- a career overview for the previous 10 years and estimate of research active time
- a career context summary to support the information provided in the career overview, describing their individual circumstances and opportunities for research and how these have positively and/or negatively impacted research productivity
- an outline of any career disruptions and additional publications for consideration (this information was also collected in previous funding rounds).

Exemplar information, which was published in the *Investigator Grants 2021 Guidelines Guide to Applicants* appendix, illustrated to applicants the trial approach to assessing track record relative to opportunity. The guidance provided fictional examples of information that could be included as part of an applicant's Career Stage, Career Overview (including research active period), Career Context summary and Career Disruption. The *Investigator Grants 2021 Peer Review Guidelines* provided peer reviewers with guidance on the implementation of the Relative to Opportunity Policy. This included direction on how they should account for applicant information during assessment.

The present evaluation of the trial approach to collection of 'relative to opportunity' information, was developed as part of the 2021 Investigator Grants round. It seeks to determine the extent to which the trial approach improved assessment of 'relative to opportunity' circumstances. The outcomes of this evaluation may be used to inform any further optimisation and broader implementation of the trial approach across NHMRC schemes.

As part of the evaluation of the Relative to Opportunity Policy trial implementation, applicants to the 2021 Investigator Grants round were surveyed to seek their feedback on the information required in the application form. Their views and attitudes towards the value of this information in providing an accurate depiction of their career circumstances were also sought. Peer reviewers were surveyed separately as part of the post-implementation *Investigator Grants 2021 Peer Reviewer Survey*. The quantitative data from these surveys were analysed and qualitative data were coded and synthesised leading to the key findings, opportunities and recommendations listed below.

# Key Findings and Opportunities

## Key Findings

**Key Finding 1:** Applicants were satisfied with the opportunities to provide information that explains their career circumstances within the application form.

**Key Finding 2:** On average, applicants spent about 8 hours completing the career disruption, career context and career overview sections.

**Key Finding 3:** The guidance provided to applicants in the *Investigator Grant Guidelines Guide to Applicants* appendix assisted applicants in providing career circumstance information within their applications.

**Key Finding 4:** The trial approach to assessing Relative to Opportunity is, in general, supported by peer reviewers.

**Key Finding 5:** Peer reviewers were satisfied with the amount of career circumstance information provided by applicants in their applications.

**Key Finding 6:** Peer reviewers felt that the career circumstance information allowed them to make consistent assessments across all applicants.

**Key Finding 7:** Peer reviewers do not appear to have been burdened by the time commitment of the peer review process.

**Key Finding 8:** The guidance provided to peer reviewers in the *Investigator Grants Guidance for Peer Reviewers* assisted peer reviewers in their assessment of an applicant's career circumstances.

## Opportunities

**Opportunity 1:** Further investigate attitudes towards time burden of application form for applicants, including any opportunities to reduce this time burden.

**Opportunity 2:** Improved guidance for estimating the time involved in research.

## Recommendations

**The revised approach to assessing Relative to Opportunity is mostly effective in achieving its objectives and intended outcomes and should be considered for rollout across all NHMRC schemes.**

Stakeholder feedback and data from both applicants and peer reviewer surveys indicated that, for the most part, the information collected was useful in the description and/or assessment of career circumstances. All NHMRC schemes (that have a track record component) should implement the revised approach to the assessment of 'relative to opportunity'. Minor adjustments to improve the process, in response to stakeholder feedback, should be made prior to implementation.

**The limitations of the current approach to assessment of 'relative to opportunity' should be addressed in response to sector feedback by addressing each of the two opportunities for improvement.**

## Intended Use

The purpose of this document is to advise on optimisation of the assessment of 'relative to opportunity', including the approach to data collection, and to guide its implementation across NHMRC schemes.

# Background

## NHMRC Evaluation Strategy

Evaluation is a core aspect of all NHMRC business activities. Underpinning this is [NHMRC's Evaluation Strategy](#) which builds upon the evaluation frameworks to which NHMRC is subject as an Australian Government agency. Evaluation demonstrates NHMRC's contribution to building a healthy Australia and supports NHMRC's policies and programs to remain fit for purpose, responsive to government, and adaptable to changing sector needs.

The Evaluation Strategy aligns to the following key principles:

- Evaluation is a strategic investment, rather than just a compliance requirement.
- An evaluation is successful to the degree that its outcomes influence behaviour.
- NHMRC's past activities remain relevant today, and should continue to be reported on and evaluated.
- Transparent and honest evaluation of NHMRC policies and programs is essential for continuous quality improvement.

## Relative to Opportunity

Most NHMRC grant schemes ask peer reviewers to assess the track record of applicants and their proposed research. NHMRC's [Relative to Opportunity Policy](#) recognises that not all research careers are the same, and requires peer reviewers to assess each applicant's track record 'relative to opportunity', taking into account circumstances that have affected the applicant's research productivity. The policy was revised on 12 January 2021 based on feedback from NHMRC's advisory committees and the research sector. It clarified 'relative to opportunity' considerations (including personal situations such as disability and unemployment) and supplemented changes announced on 4 August 2020 to recognise the effects of the COVID-19 pandemic and other calamities.

NHMRC considers Relative to Opportunity to mean that assessment processes should accurately assess an applicant's track record and associated productivity relative to their stage of career, taking into consideration whether productivity and contribution are commensurate with the opportunities available to the applicant. During peer review of applications, the positive and negative circumstances of all applicants are considered under the Relative to Opportunity Policy. The policy aims to ensure that assessors take into account salient research opportunity considerations over the course of an applicant's research career. The policy is not intended to address minor changes to life circumstances. Circumstances considered during peer review include, but are not limited to research engagement, resources and facilities, professional responsibilities, personal and other circumstances. Relative to Opportunity considerations do not include minor or short-term changes, recreational leave or general administrative activities.

Career Disruptions are a subset of Relative to Opportunity considerations and are taken into account in the assessment of track record and determining an applicant's eligibility for Emerging Leadership Investigator Grants (in terms of years since they received their PhD).

# Implementation of Relative to Opportunity in 2021 Investigator Grants

The Investigator Grant scheme is a targeted competitive grant opportunity administered by NHMRC, providing funding to outstanding Australian investigators from NHMRC-approved Administering Institutions at all career stages. It consolidates salary and research support into a single grant scheme by offering a salary component (if required) and a research support package. As part of the 2021 Investigator Grants round, NHMRC trialed a new approach to the assessment of 'relative to opportunity' considerations by taking into account the individual career context and life circumstances of all applicants in track record assessment.

## Applicants

All applicants were required to include:

- Their career stage based on time period since PhD completion or equivalent
- A structured overview of their research career over the 10-year period up to the closing date of the scheme including:
  - key appointments/roles
  - whether they had any Career Disruptions
  - category of Relative to Opportunity circumstances
  - an estimate of time actively involved in research (Full-Time Equivalent research active period), associated with the research role and overall, after taking into account Career Disruption and other Relative to Opportunity considerations.
- A career context summary statement outlining the opportunities for research (positive and negative) and the associated impact on research productivity.
- Details of any Career Disruptions, their impact and additional publications (preceding the 10-year period).

## Peer Reviewers

When implementing the Relative to Opportunity Policy, peer reviewers are required to holistically consider the information provided in the Career Overview, Career Context and Career Disruption sections, as well as the number of years post-PhD or equivalent (where applicable), to make an assessment about whether the applicant's productivity and contribution presented for Track Record assessment are commensurate with the opportunities available to them.

Key considerations that rely on peer reviewer judgement include (but are not limited to):

- Applicant career stage
- The typical performance of researchers in the research field in question
- Opportunities (both positive and negative) for the applicant to engage in research, taking into account:
  - the number of years they have been research active (which peer reviewers can adjust based on their judgement of the applicant's circumstances)
  - professional responsibilities and employment situations
  - personal and other circumstances
  - the resources and facilities available to the applicant.

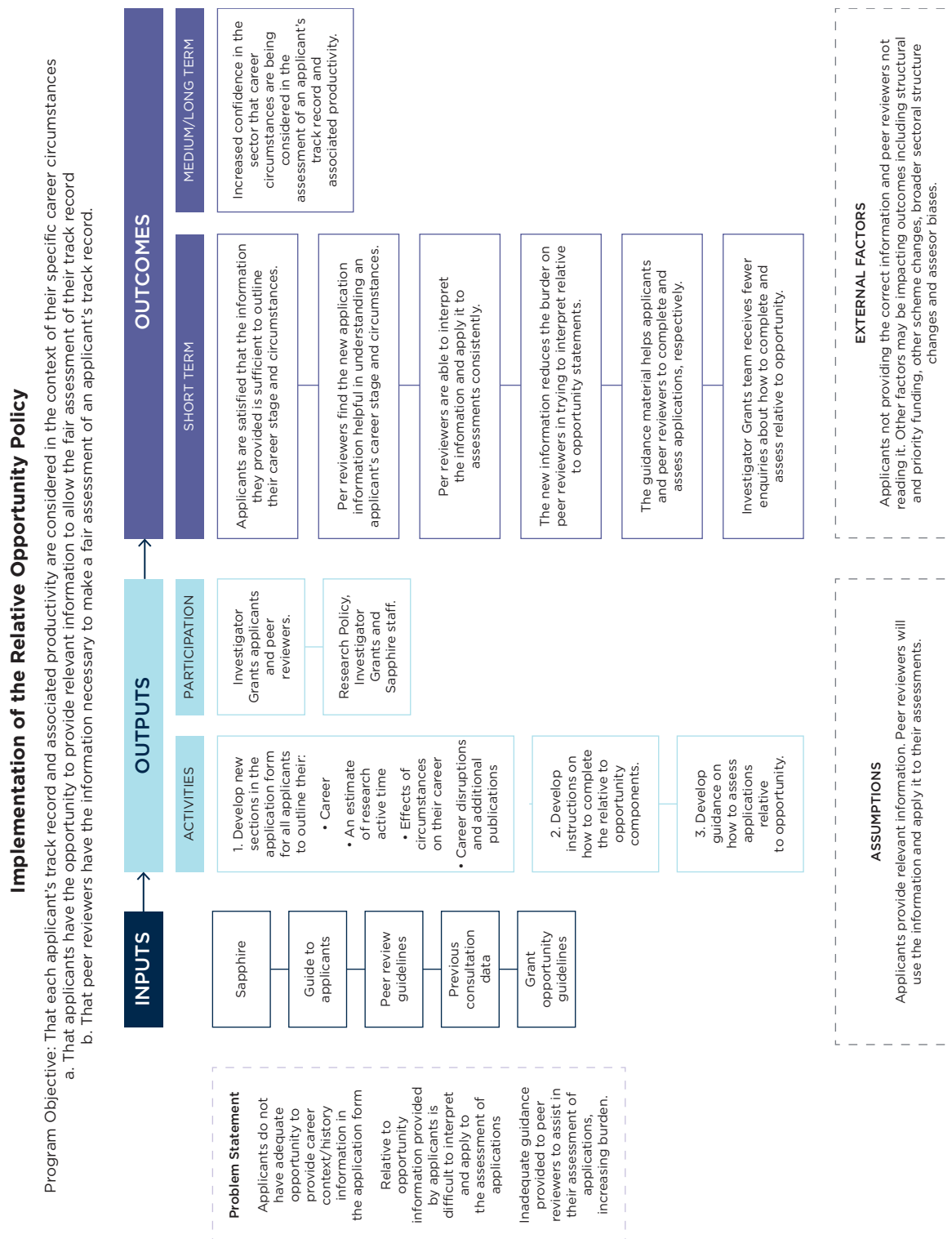
Peer reviewers are expected to consider each applicant's circumstance on its merits, while maintaining consistency in judgement and reasoning across applications assigned to them. Consensus is not necessary among reviewers, noting that peer review relies on each individual's judgement (which may differ from another assessor).



# Evaluation

The approach used for the present evaluation was developed by NHMRC’s Research Policy Section in consultation with the Investigator Grants section. It incorporates a mixed methods approach using targeted stakeholder surveys (seeking structured data) and qualitative responses in conjunction with quantitative analyses of the Relative to Opportunity section of the 2021 Investigator Grants applications. A logic model for the evaluation is provided at Figure 1.

Figure 1: Logic Model for the Relative to Opportunity evaluation





# Survey Design

Survey questions for both applicants and peer reviewers were developed by NHMRC's Research Policy Section. Both surveys were delivered using SurveyMonkey.

## Applicant Survey

As part of the evaluation of the revised approach to the Relative to Opportunity Policy, applicants to the 2021 Investigator Grants round were surveyed to seek their feedback on the information in the application form and to determine their views and attitudes towards the value of this information in providing an accurate depiction of their career circumstances. The *2021 Investigator Grants applicant survey on Relative to Opportunity information* (the survey) comprised 13 questions in total (10 mandatory multiple-choice questions and 3 optional free-text questions), providing applicants the opportunity to explain their responses to the multiple-choice questions (Appendix A).

The survey was sent to 1,619 applicant participants (who were not also peer reviewers) over a two-day period in June 2021. As of survey close, 639 responses were collected, a total response rate of 39.5%. Participants spent, on average, 6 minutes completing the survey with a completion rate of 85.3% (i.e., 85.3% of participants who began the survey completed it fully).

## Peer Reviewer Survey

Peer reviewers were surveyed separately on the policy as part of the annual post-implementation *Investigator Grants 2021 Peer Reviewer Survey*. Section 3 of this survey contained 4 optional multiple-choice and 4 optional free-text questions relating to the Relative to Opportunity information provided in applications (Appendix B).

The survey was sent to 467 peer reviewers and 270 responses were collected, i.e. a total response rate of 57.8%. All questions in this survey were optional and not all respondents provided answers for all questions.

# Key Findings

Note: where they occur in the body of the text, *italics* denote exact quotes taken from applicant and peer reviewer respondents within the free-text survey questions. These quotes include any typographical or grammatical errors that respondents may have made.

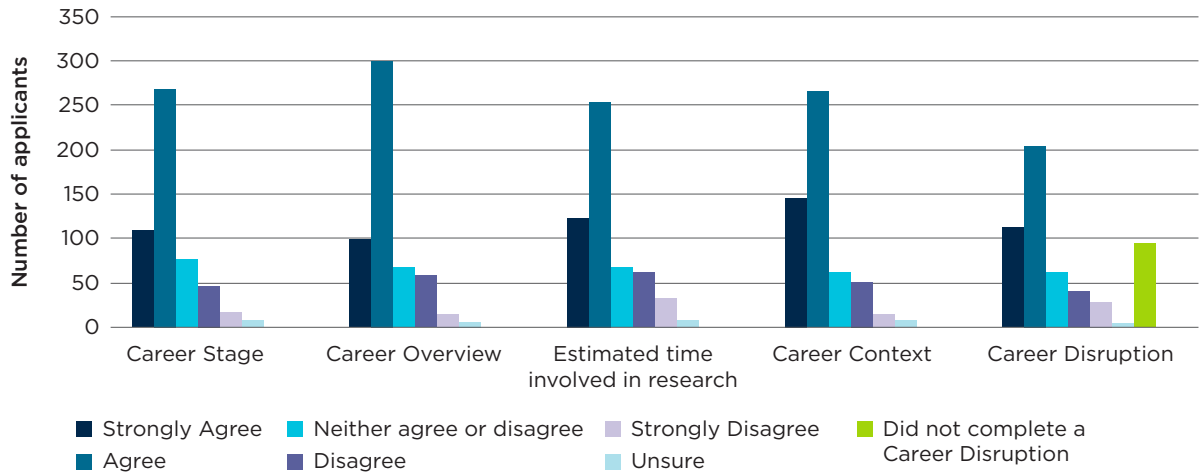
## Applicants

**Key Finding 1: Applicants were satisfied with the opportunities to provide information that explains their career circumstances within the application form.**

Overall, responses to questions 4-8 indicated that 23% of applicants 'Strongly Agreed' and 49% 'Agreed' that the information they were able to provide to NHMRC was helpful in communicating their career circumstances. When broken down into the response for each of the 5 specific sections (career stage, career overview, estimated time involved in research, career context and career disruption), a similar response pattern is present across all 6 options (not including 'Did not complete a Career Disruption' which was an option only for Career Disruption) (refer Figure 2).

Figure 2: Responses from Questions 4-8 of the applicant survey

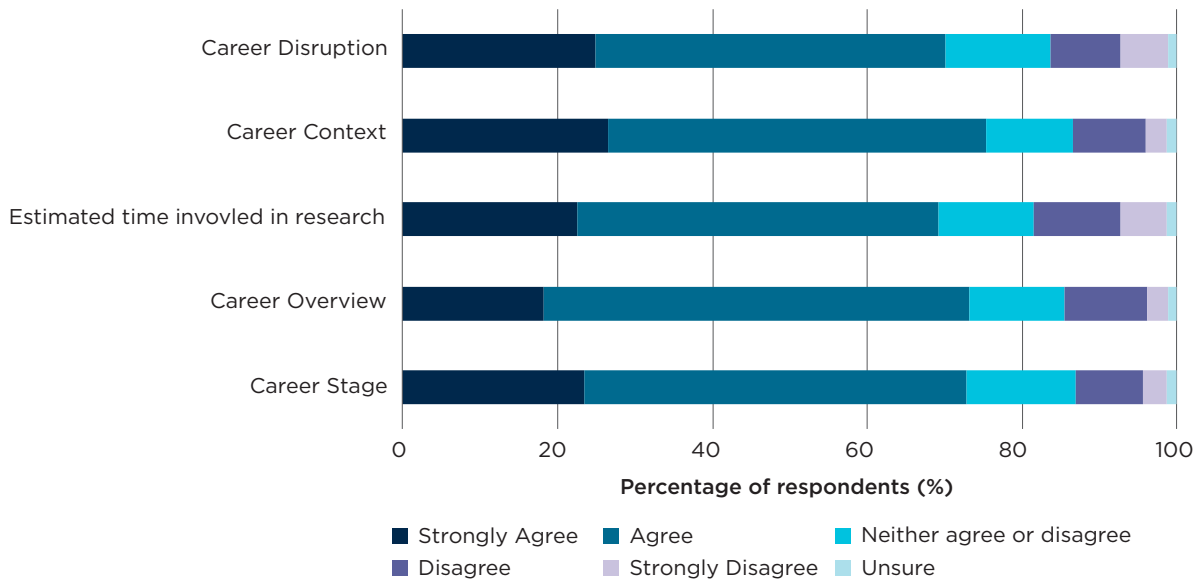
Applicant responses to Q4-8: "The information obtained through the following sections is helpful in understanding my career circumstances"



When adjusting for those who did not complete a career disruption, 72.2% of applicant-respondents (on average, across all 5 sections) 'Agreed' or 'Strongly Agreed' that the information collected within each of these sections was helpful in providing an overview of their career circumstances (refer Figure 3).

Figure 3: Responses from Questions 4-8 of the applicant survey, adjusting for those who did not complete a career disruption

Applicant responses to Q4-8: "The information obtained through the following sections is helpful in understanding my career circumstances"



In question 9 of the applicant survey, 272 applicant-respondents took the opportunity to provide further comment about the value of the five components mentioned above in assessment of their career circumstances.

**Career Stage**

Fifteen applicants provided further comment on the Career Stage section, most of which were positive or neutral but otherwise without detail.

## Career Overview

Sixteen comments were made on the Career Overview section, some which included suggestions to improve this section by:

- Defining career overview to ensure applicants are clear about what to include within this section
  - Providing a bullet list of relevant information for this section
- Ensuring a greater distinction between the Career Overview and the Career Context sections
- Improving formatting of the Career Overview table (landscape instead of portrait)
- Removing character limit constraints.

## Estimated Time Involved in Research (ETIR)

Fifteen respondents provided further comment about the ETIR section. These described some difficulties with the Sapphire layout and requested clearer guidance on calculating FTE for each role (in relation to % research). Applicants, specifically those who work across research and non-research sectors, described difficulties in defining ETIR.

## Career Context

60 applicants (or 22%) commented on Career Context. The majority of these respondents appreciated the addition of this section. They commented on the free text field and the opportunity to provide a narrative context to their career circumstances, flagging this as the most useful section of the application form.

Common critiques in response to the Career Context section were related to:

- the restrictive word limit that limited inclusion of specific detail
- limitations resulting from the 10-year period of inclusion, especially as a disadvantage to women who have taken maternity leave.

## Career Disruption

88 comments (32%) discussed Career Disruption.

Several applicants commented on the 10-year period of inclusion, highlighting that significant disruptions outside of this timeframe, especially those with ongoing ramifications, could not be captured within this section.

Additionally, 26 comments (30%) described issues with the requirement for prolonged career interruptions of 90-days or more. Commenters described this section as being “strict”, “inequitable” and “discriminatory”, particularly to “*researchers who have caring responsibilities that occur over a prolonged period of time, but leave is not taken in large blocks of time*”.

Similar comments stated:

- *Defining career disruption as a ‘physical issue or carer responsibility’ is not inclusive and to be quite honest, discriminatory. The criteria ‘Prolonged interruption (≥90 days)’ is also discriminatory and does not take into consideration those of us with disability who are successful academics, work in a 1.0 FTE, but have our career impacted by our disability on an ongoing basis (eg we cannot travel domestically or internationally, or we use assistive technology to do our work meaning that our rate of publication is much less than those who do not use this technology).*
- *For people with chronic illnesses or carer duties that sometime require multiple separate interruptions of let’s say, 60-80 day interruptions that occur multiple times are ignored and completely impacted.*

Feedback and advice for improving this section includes:

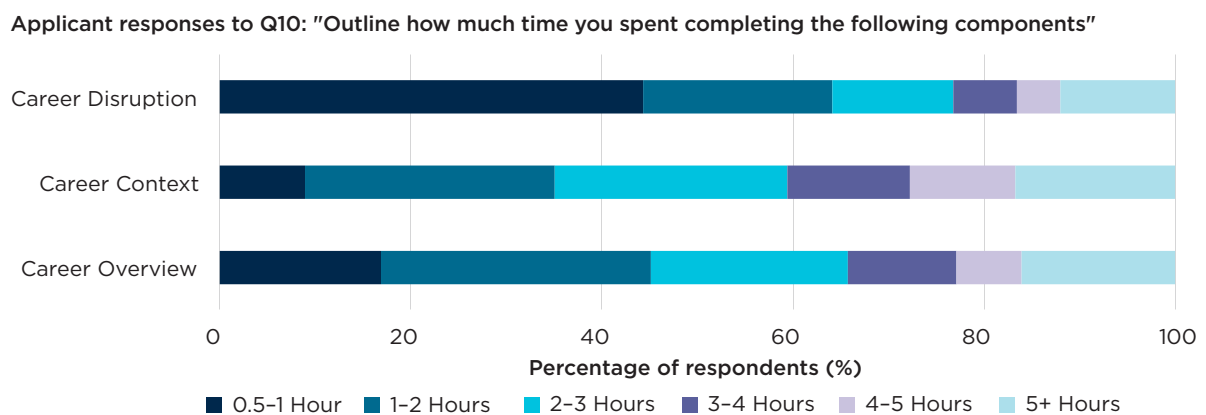
- Reducing the burden on applicants so they do not have to re-input 10 years of employment information which is already contained within other sections of Sapphire
- NHMRC should be employing the use of gender-neutral language (e.g. parental leave rather than pregnancy or maternity leave)

- Broadening the definition of career disruption to include others forms of disruption, such as unemployment (such as that used by the Australian Research Council (ARC))
- Having an ‘other’ option on the drop-down list, or allowing applicants to describe a disruption category within a specific number of characters
- Removing the prolonged interruption requirement (i.e. minimum 90-day consecutive) and/or including accumulated disruptions, particularly for parental responsibilities, disability and chronic/long-term illness.

**Key Finding 2: On average, applicants spent about 8 hours completing the career disruption, career context and career overview sections.**

Response data, as shown in Figure 4 details the amount of time applicants spent on each of the following areas of the Sapphire application form.

Figure 4: Applicant responses to Question 10, adjusted for the 94 respondents who did not complete a career disruption (time spent = 0 mins)<sup>1</sup>



Career Disruption: with more than 60% of applicants spending less than 2 hours here, career disruption was the least time-burdensome section in the application form.

Career Context: over 40% of applicants spent 3 or more hours completing their career context, with 17% spending 5+ hours.

Career Overview: like career context, career overview was also time-burdensome, with more than 50% of applicants spending 2 or more hours completing this section. 16% of applicants spent more than 5 hours on this section.

By using the mid-point of the first four options (i.e. 0.5-1 hrs as 0.75 hrs, 1-2 hrs as 1.5 hrs, 2-3 hrs as 2.5 hrs, 3-4 hrs as 3.5 hrs, 4-5 hrs as 4.5 hrs and by coding 5+ hrs as 5.5 hrs), the approximate average time spent completing each section was calculated as follows:

Career Disruption – 2.1 hrs

Career Overview – 2.7 hrs

Career Context – 2.9 hrs

The total combined average for all 3 sections is 7.7 hrs. The limitations of these data, specifically the fact applicants were not specifically requested to detail their attitudes towards the hours committed to filling out these three sections, are discussed in Opportunity 1 below.

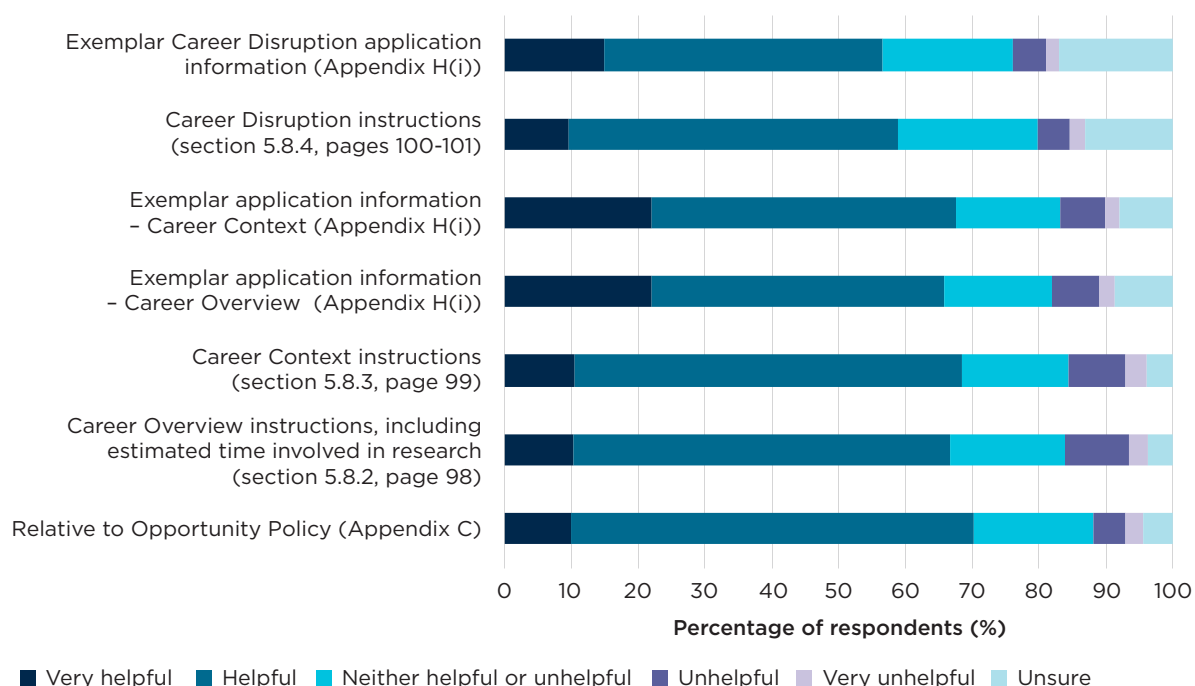
<sup>1</sup> It should be noted that Career Disruption information has been provided by applicants within the application form for many years, and so time to complete is likely minimal for previous applicants as they may only be making slight updates to the information. Conversely, as the Career Context and Career Overview sections are new to the application form, it is to be expected these sections will take more time to complete. As applicants become more familiar with the two additional sections over time, it can be assumed that a corresponding decrease in time spent completing will follow.

**Key Finding 3: The guidance provided to applicants in the *Investigator Grant Guidelines* and *Guide to Applicants* appendix assisted applicants in providing career circumstance information within their applications.**

Survey data show that, on average, 64.9% of respondents found the six exemplars and guidance information either ‘Helpful’ or ‘Very Helpful’. Response patterns were broadly similar for most questions aside from two (exemplar application information for career context and exemplar application information for career overview) which both had more than a two-fold difference for ‘Very Helpful’. It should be noted that the higher response rate for ‘Unsure’ for ‘Exemplar Career Disruption application information (Appendix H(i))’ may be a result of the 94 respondents who did not complete a career disruption, and therefore would not have engaged with this exemplar material (refer Figure 5).

Figure 5: Applicant responses to Question 11

Applicant responses to Q11: “The following guidance information in the 2021 Investigator Grant Guidelines was helpful in providing career circumstance information”



A small proportion of applicants (on average, 6.7%) found this information ‘Unhelpful’ and an average of 2.5% found the information ‘Very Unhelpful’. When given the opportunity to explain their responses, applicants often suggested further information/exemplars, including:

- Providing more information and detailed examples to guide applicants in estimating their FTE years in research
- A summary of important points or key information that should be included
- Clearer guidance to administering institutions to prevent the contradictory advice that was provided to researchers at different institutions
- Providing a clear definition of ‘key appointments’ for the Career Overview exemplar information
- Clearer guidance or exemplars on how to include pre-PhD research experience
- Ensuring the formatting within the guidance/exemplars matches that on Sapphire
- More clearly stating the requirement to include PhD as research active years
- Providing more diversity in guidance and examples of circumstances that fall outside of maternity leave, clinical load, and teaching. Suggestions to include disability, non-clinical work and caring responsibilities.

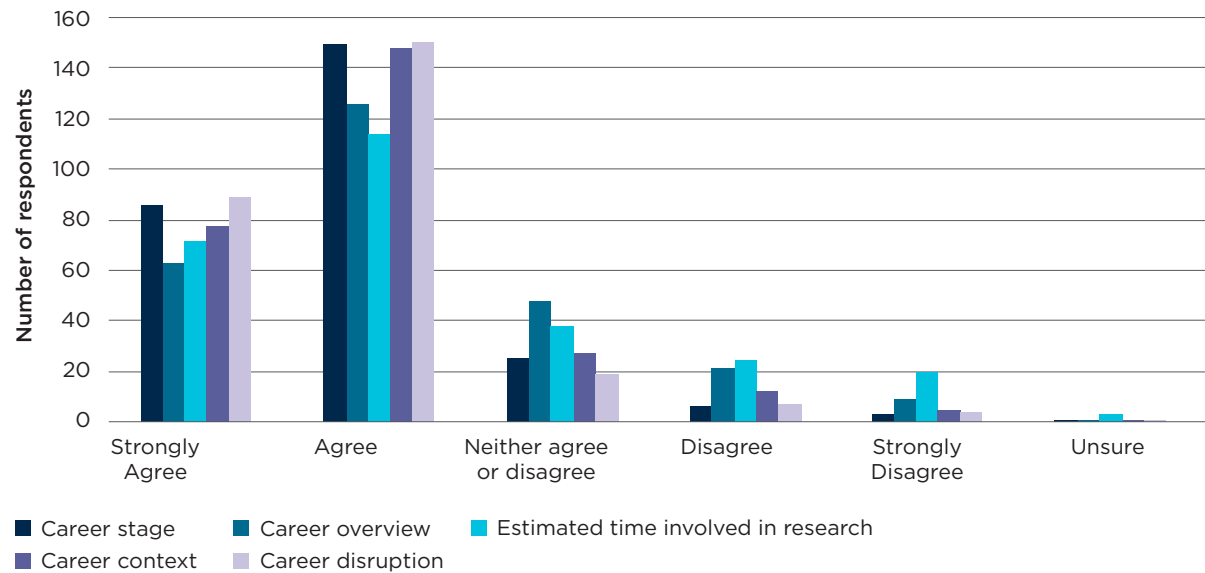
# Peer Reviewers

## Key Finding 4: The trial approach to Relative to Opportunity is, in general, supported by peer reviewers.

When asked to indicate the extent to which they agree that the information collected was helpful in assessment of an applicant’s career circumstances, most peer reviewers responded in the positive. Of the 270 peer reviewers who provided responses to this question, the following per cent ‘Agreed’ or ‘Strongly Agreed’: 87% career stage, 70% career overview table, 69% estimated time involved in research, 83% career context and 89% career disruption. Conversely, 3% (career stage), 11% (career overview), 16% (estimated time involved in research), 6% (career context) and 4% (career disruption) either ‘Disagreed’ or ‘Strongly Disagreed’ (refer Figure 6).

Figure 6: Responses from Question 1 of the peer reviewer survey

Peer reviewer responses to Q1: "Indicate the extent to which you agree the information contained in the followi assessment of an applicant’s career circumstances"



When given the opportunity to provide further comment about the components used to assess applicant’s career circumstances in question 2, peer reviewers stated some common concerns:

- 31 of 137 (23%) responses were concerned with the ETIR section (see Opportunity 2 below)
  - 10 peer reviewers requested clarification on whether PhD should be included in the ETIR section.
- 12 peer reviewers noted that responses within the career overview table were difficult to interpret, and noted that, as applicant responses varied greatly, there may have been some issues with applicants understanding how to best input information into this table (aligning with some of the applicant suggestions for the career overview table in Key Finding 1).

Opportunity 2 below outlines suggestions made by peer reviewers to improve these processes.

**Key Finding 5: Peer reviewers were satisfied with the amount of career circumstance information provided by applicants in their applications.**

Question 3 of the peer reviewer survey asked peer reviewers to elaborate on any other career circumstance information they would have liked to assess. 62% of the 107 respondents were satisfied with what was already provided (i.e. they answered “no” to “Would you have liked applicants to provide any other career circumstance information in their applications? If so, elaborate.”).

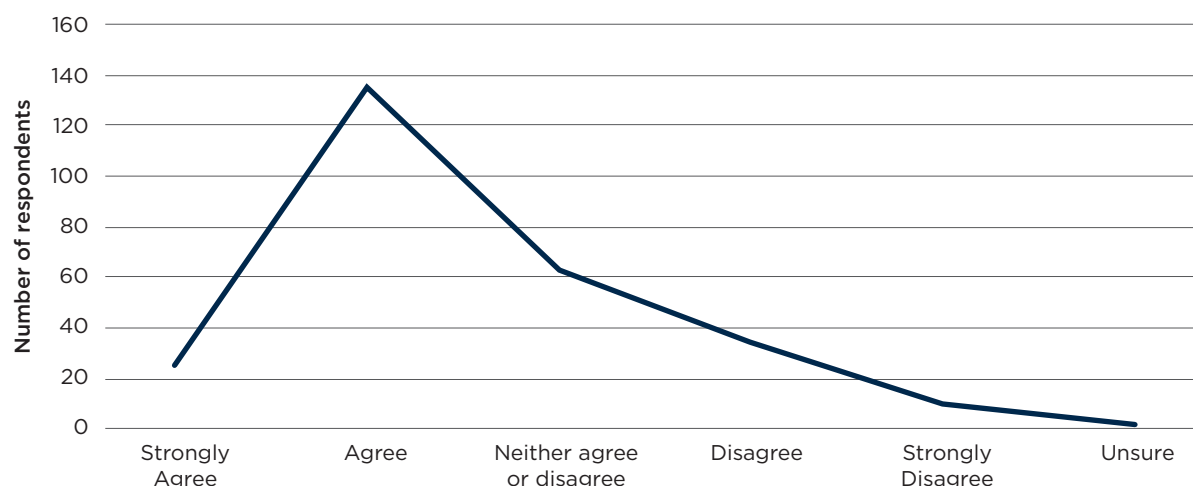
Of the remaining 38%, answers were as follows:

- 4 requested applicants should be provided with the opportunity to elaborate on their ETIR section to explain/justify their calculations
- 6 stated applicants should be required to justify the level at which they apply<sup>2</sup>
- 2 stated that applicants should include statement on time involved within industry/community (outside of academic-focused research)
- 2 suggested increasing the character limits for the career context section
- 1 suggested to allow career circumstances beyond the past 10 years.

**Key Finding 6: Peer reviewers felt that the career circumstance information allowed them to make consistent assessments across all applicants.**

Figure 7: Responses to Question 4 of the peer reviewer survey<sup>3</sup>

Peer reviewer responses to Q4: “Did the career circumstance information provided in the applications enable consistent assessment of track record across all applicants?”



Question 5 asked peer reviewers, in free-text response format, to explain their response to Q4, “Did the career circumstance information provided in the applications enable consistent assessment of track record across all applicants?” (refer Figure 7). 21% of these comments referred to the benefits of the information provided by applicants. Of the peer reviewers who raised issues with the information provided by applicants, the most common issues were applicants applying at incorrect or unjustifiable levels or ‘gaming the system’ (raised by 22%) and challenges associated with remaining consistent across assessment (raised by 15%).

<sup>2</sup> It was mandatory for applicants to provide a justification for the category and level applied for and all applicants in the 2021 round of Investigator Grants provided this information.

<sup>3</sup> Responses to Figure 6 and Figure 8 (below) demonstrate a data trend that is only seen for these two questions. That is, the response rate for ‘Neither Agree or Disagree’ being significantly higher than that of ‘Strongly Agree’ (as opposed to the converse in responses to other questions, particularly those similar questions in the applicant survey, i.e. Q11) and a minimal number of responses for ‘Unsure’. This may be a result of the differences in the two surveys; while the applicant survey was standalone, the peer reviewer survey was part of a wider post implementation review (PIR) for Investigator grant peer reviewers. This PIR contained 30+ other questions from the Investigator Grant team who used a 5-point scale (Strongly Agree, Agree, Neither Agree or Disagree, Strongly Disagree) as opposed to the 6-point scale used by the Research Policy Section (Strongly Agree, Agree, Neither Agree or Disagree, Strongly Disagree, Unsure). Peer reviewer-respondents may not have noticed the different response scales and therefore used ‘Neither Agree or Disagree’ in place of ‘Unsure’.

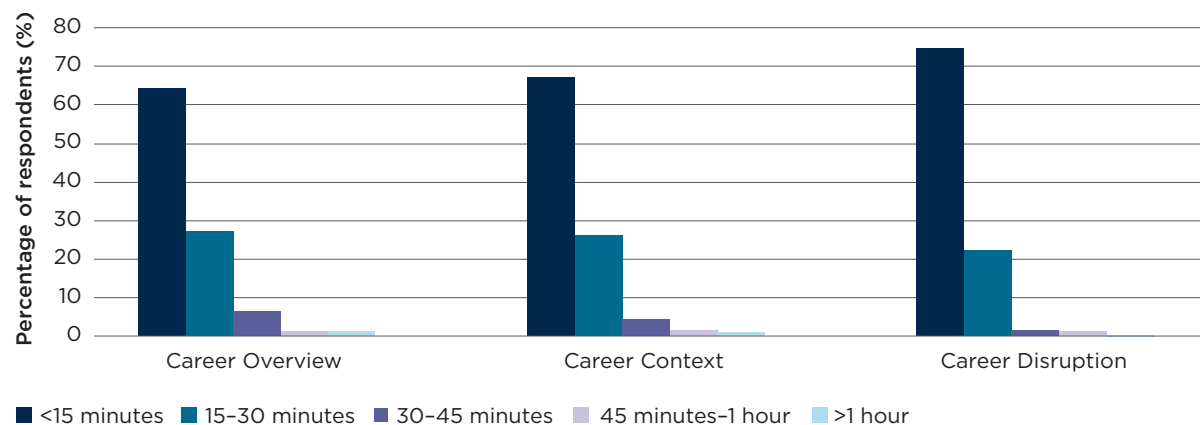


**Key Finding 7: Peer reviewers do not appear to have been burdened by the time commitment of the peer review process.**

Data shown in Figure 8 indicates most peer reviewers spent less than 30 minutes each reviewing the following sections: career overview (91%), career context (94%) and career disruption (97%).

Figure 8: Responses to Question 6 of the peer reviewer survey

Peer reviewer response to Q6: "How much time did you spend reviewing the following components when assessing an applicant's track record?"



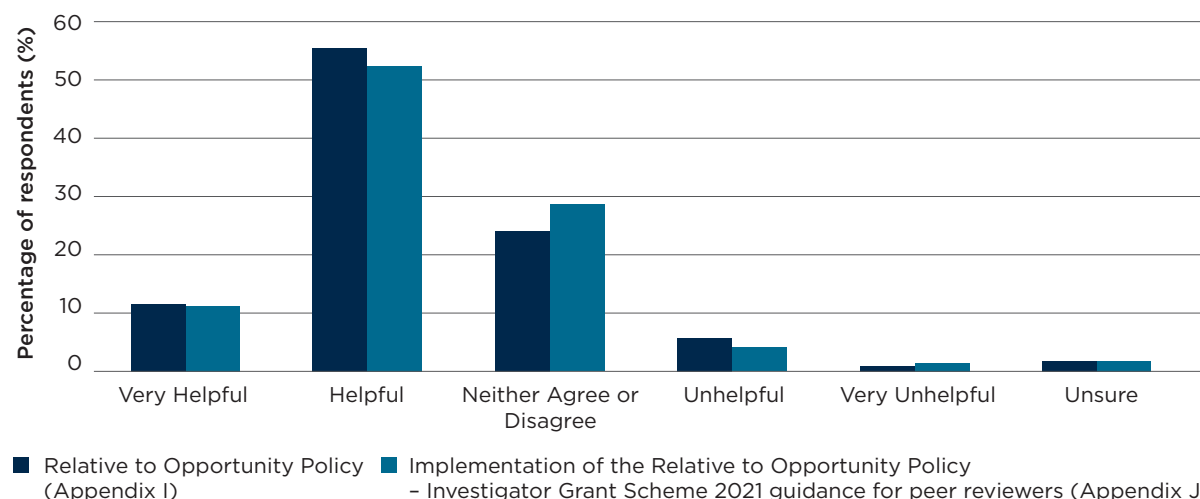
Reviewers were not specifically requested to detail their attitudes towards the time committed to reviewing these three sections. However, given that the modal response for each component was the smallest time period (<15 minutes), it would appear that peer reviewers were not significantly burdened by the time commitment of the process.

**Key Finding 8: The guidance provided to peer reviewers in the Investigator Grant Guidance for Peer Reviewers assisted peer reviewers in their assessment of an applicant's career circumstances.**

When asked if the guidance information provided in the 'Relative to Opportunity Policy (Appendix I)' and 'Implementation of the Relative to Opportunity Policy - Investigator Grant Scheme 2021 guidance for peer reviewers (Appendix J)' was helpful, most peer reviewers indicated they were either 'Helpful' or 'Very Helpful' (68% for Appendix I and 64% for Appendix J) (refer Figure 9).

Figure 9: Responses to Question 7 of the peer reviewer survey

Peer reviewer responses to Q7: "How helpful did you find the following guidance information in the 2021 Investigator Grant Peer Review Guidelines in assessing an applicant's career circumstances?"



The data above show a number of respondents indicating 'Neither Agree or Disagree' (24% and 29%), which are higher responses to this option than in any previous question.

Respondents were prompted, in question 8 of the survey, to indicate what they liked or didn't like about the guidance information and were requested to describe any additional guidance or support that would be useful. 36% of respondents indicated they did not require any additional guidance or support.

Comments that offered suggestions to improve the guidance material included:

- Consolidating peer reviewer guidance into a short video
- Standardising common disruptions such as pregnancy
- Providing clear guidance on what applicants should be including and what should not be included in each section
- Including examples of strong and weak applications.

## Opportunities for Improvement

### **Opportunity 1: Further investigate attitudes towards time burden of application form for applicants, including any opportunities to reduce this time burden.**

As outlined in Key Finding 2 (above), applicants were spending about 8 hours completing the three sections: career overview, career context and career disruption. It is expected that this will decrease in the future, as applicants become familiar with these sections. This may be an area NHMRC could monitor by conducting future surveys of applicants (ensuring distinction is made between new applicants and re-applicants). In addition, the applicant survey did not have a free-text box following this question, so the survey did not capture information from applicants on whether they found this amount of time spent completing these sections appropriate, or burdensome. Any future surveys to applicants should consider an optional free text box to give applicants the opportunity to discuss their thoughts regarding time spent.

The finding (Key Finding 7) that peer reviewers did not appear to have been burdened by the time commitment of the peer review process (due to the average time spent per section being less than 15 minutes) could also be investigated further with a free-text question, if necessary.

Addressing any opportunities to reduce this time burden on applicants without reducing the value of information collected within the application form should be a top priority for all NHMRC schemes.

### **Opportunity 2: Improved guidance for estimating the time involved in research.**

In the multiple-choice section of the peer reviewer survey, 69% (185 of the 270) of respondents 'Agreed' or 'Strongly Agreed' that the information contained in the ETIR section was helpful in the assessment of an applicant's career circumstances, whereas 16% either 'Disagreed' or 'Strongly Disagreed'.

When given the opportunity to provide comment, 23% (31 of 137) of peer reviewers responded negatively about the ETIR section whereas only 4% (6 of 137) responded positively. These negative comments focused on applicants' inappropriate use of ETIR to justify applications at a lower level, or to minimise or underestimate advancements in their careers. The most common concern of peer reviewers was the inconsistent inclusion – or exclusion – of an applicant's Doctorate of Philosophy (PhD) in their research active years.

Comments included:

- *Estimated time in research was clearly “gamed” and I do not believe accurately reflected all research activity.*
- *The time involved in research was commonly used to inappropriately claim that very little time was spent in research in order to be judged at a lower level. I found this not at all helpful.*
- *I found the estimated time in research to be arbitrary - it seemed a bit random, and didn't seem representative. I thought the other things fairer.*
- *The estimated time spent in research was ludicrous and rarely believable. It seemed as though people were wilfully underestimating. People with PhD claiming < 2 years in research??*
- *Estimated time involved in research was heavily missused by applicants. Some including their PhD studies and others not.*
- *...applicants were variable in how they filled it out. e.g., some included PhD, others did not.*
- *some applicants included or didn't include their PhD training as estimated time involved in research. Not sure if this was clear in the application guidelines.*
- *Estimated time involved in research was very difficult to assess as some applicants included time spent in their PhD while others did not.*
- *Many people didn't include their PhD in 'Estimated time involved in research' so this also didn't add value.*

Using this opportunity to action peer reviewer feedback, NHMRC could consider providing additional guidance for the ETIR section to ensure applicants are using it fairly and consistently. Suggestions from peer reviewers included:

- Considering different approaches to applicants working in non-academic sectors
- Giving applicants the opportunity to contextualise their numeric responses
- Providing guidance to peer reviewers to assist in standardising assessment of ETIR
- Placing lower or upper limits on input values for applications (e.g. a maximum of 5% administrative time in a 1.0 FTE researcher role)
- Providing peer reviewers with advice on what is – or is not – appropriate for time in research to assist in benchmarking applicants
- Advising peer reviewers of action to take when applicants are ‘gaming’ the ETIR section (i.e. what a peer reviewer should do if an applicant is manipulating the section for their own benefit)
- Providing applicants with more guidance on using the career overview table
- Ensuring career disruptions relate to only major disruptions (caring, illness, etc.)
- Developing guidance to peer reviewers on scoring pre-PhD research careers
- Combining the ETIR section and career overview table.

Noting the observation by peer reviewers that applicants are ‘gaming the system’, NHMRC may consider the need to include additional guidance to applicants on how to complete this section, accompanied by examples. This could include:

- explaining to applicants in the *Guide to Applicants* appendix that their career context summary should provide sufficient information to support their stated ETIR
- explicitly stating that time completing a PhD or research Masters degree is considered research active and must be included in the calculation of the ETIR
- additional examples of circumstances where the calculation of the ETIR has been incorrect – for example, a Director of an Institute/Unit who has a team carrying out their research program stated a zero ETIR, as they were not physically undertaking the research; in this situation, the Director's ETIR should have reflected their time
- providing strategic leadership to the team and writing manuscripts and grant applications.

To further support peer reviewers in their assessment of 'relative to opportunity', the Peer Review Guidelines could reiterate that peer review is a subjective exercise, and that the applicant's career context summary should provide sufficient information to support or explain their ETIR. If this is not the case, then this can be factored into their consideration of the applicant's career circumstances in assessing their track record 'relative to opportunity'.

# Recommendations

**The revised approach to Relative to Opportunity is mostly effective in achieving its objectives and intended outcomes and consideration should be given to implementing it across all NHMRC schemes.**

Stakeholder feedback and data from both applicants and peer reviewer surveys indicated that, for the most part, information collected as part of Relative to Opportunity was useful in application and/or assessment of career circumstances. All NHMRC schemes should implement the revised approach to the assessment of 'relative to opportunity'. Minor adjustments to improve the process, in response to stakeholder feedback, should be made prior to implementing in other schemes.

Implementation of the revised approach to assessment of relative to opportunity should be harmonised across all relevant NHMRC schemes where possible.

**Limitations of the current approach to assessment of Relative to Opportunity could be addressed by responding to sector feedback and addressing the two opportunities for improvement (outlined above).**

# Appendix A: Applicant Survey Questions

1. What is your gender? (*Female / Male / Intersex, indeterminate or unspecified / Prefer not to disclose*)
2. What is your broad research area? (*Basic Science / Clinical Medicine and Science / Public Health / Health Services Research*)
3. Are you of Aboriginal or Torres Strait Islander descent? (*Aboriginal and Torres Strait Islander descent / Aboriginal descent / Torres Strait Islander descent / Neither Aboriginal or Torres Strait Islander descent*)
4. The information obtained through Career Stage is helpful in understanding my career circumstances. (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*)
5. The information obtained through the Career Overview table is helpful in understanding my career circumstances. (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*)
6. The information obtained through Estimated time involved in research is helpful in understanding my career circumstances. (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*)
7. The information obtained through Career Context is helpful in understanding my career circumstances. (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*)
8. The information obtained through Career Disruption is helpful in understanding my career circumstances. (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*)
9. Provide comments about the necessity of any of the components above in assessment of your career circumstances. (*Optional free text box*)
10. Outline how much time you spent completing the following components (*0.5-1 hour / 1-2 hours / 2-3 hours / 3-4 hours / 4-5 hours / 5+ hours*):
  - a. Career Overview
  - b. Career Context
  - c. Career Disruption

11. The following guidance information in the 2021 Investigator Grant Guidelines was helpful in providing career circumstance information (*Very helpful / Helpful / Neither helpful or unhelpful / Unhelpful / Very unhelpful / Unsure*):
  - a. Relative to Opportunity Policy (Appendix C)
  - b. Career Overview instructions, including estimated time involved in research (section 5.8.2, page 98)
  - c. Career Context instructions (section 5.8.3, page 99)
  - d. Exemplar application information – Career Overview (Appendix H(i))
  - e. Exemplar application information – Career Context (Appendix H(i))
  - f. Career Disruption instructions (section 5.8.4, pages 100-101)
  - g. Exemplar Career Disruption application information (Appendix H(i))
12. Provide comments about the guidance information, particularly if you answered ‘unhelpful’ or ‘very unhelpful’. Include feedback about additional guidance or support that could be provided. (*Optional free text box*)
13. Would you like to have provided any other career circumstance information in your application? If so, elaborate. (*Optional free text box*)

# Appendix B: Peer Reviewer Survey Questions

1. Please indicate the extent to which you agree the information contained in the following sections was helpful in your assessment of an applicant's career circumstances (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly Disagree / Unsure*):
  - a. Career stage
  - b. Career overview table
  - c. Estimated time involved in research
  - d. Career context
  - e. Career disruption
2. Provide comments about the necessity of any of the components above in assessment of the applicant's career circumstances. (*Optional free text box*)
3. Would you have liked applicants to have provided any other career circumstance information in their applications? If so, elaborate. (*Optional free text box*)
4. Did the career circumstance information provided in the applications enable consistent assessment of track record across all applicants? (*Strongly Agree / Agree / Neither agree or disagree / Disagree / Strongly disagree / Unsure*)
5. Provide any comments to explain your response to the question above? (*Optional free text box*)
6. How much time did you spend reviewing the following components when assessing an applicant's track record? (*<15 minutes / 15-30 minutes / 30-45 minutes / 45 minutes-1 hour / >1 hour*):
  - a. Career overview
  - b. Career context
  - c. Career disruption
  - d. How helpful did you find the following guidance information in the 2021 Investigator Grant Peer Review Guidelines in assessing an applicant's career circumstances (*Very helpful / Helpful / Neither helpful or unhelpful / Unhelpful / Very unhelpful / Unsure*):
  - e. Relative to Opportunity Policy (Appendix I)
  - f. Implementation of the Relative to Opportunity Policy – Investigator Grant Scheme 2021 guidance for peer reviewers (Appendix J)
  - g. Was there anything in particular that you liked or disliked about the guidance information? What additional guidance or support could be provided? (*Optional free text box*)



# Glossary

Term	Definition
<b>Career circumstances</b>	Comprises five structured information sections that contribute to ‘relative to opportunity’ considerations. These sections are: <ul style="list-style-type: none"> <li>• Career stage</li> <li>• Career overview</li> <li>• Estimated time involved in research</li> <li>• Career context, and</li> <li>• Career disruption.</li> </ul>
<b>Career context</b>	A broad overview of an applicant’s engagement in research over the last 10 years (or since they commenced research if fewer than 10 years) to provide peer reviewers with context on the applicant’s overall opportunities to conduct and disseminate/translate research. This may include other information about circumstances affecting their opportunities to undertake research, excluding career disruptions (which are described separately), including: resources and facilities, professional responsibilities, personal circumstances and other circumstances.
<b>Career disruption</b>	Prolonged interruption (≥90 days) due to pregnancy, illness/injury and/or carer responsibilities.
<b>Career diversity</b>	Researchers with career paths that include time spent outside academia should not be disadvantaged. NHMRC recognises that time spent in other sectors such as industry may enhance research outcomes for both individuals and teams.
<b>Career overview</b>	Structured career information for the 10-year period preceding the closing date of the scheme, including: <ul style="list-style-type: none"> <li>• key appointments/roles</li> <li>• whether they had any Career Disruption(s)</li> <li>• the category(ies) of circumstances described under Career Context (research, resources and facilities, professional responsibilities, personal circumstances or other).</li> </ul>
<b>Career stage</b>	Holding a PhD or equivalent (where “equivalent” is defined as a qualification or research experience that meets the Level 10 criteria of the Australian Qualifications Framework Second Edition January 2013).
<b>Estimated time involved in research (ETIR)</b>	Full-Time Equivalent (FTE) research-active period, after taking into account Career Context and Career Disruption(s).
<b>Fair access</b>	Researchers should have access to funding available through NHMRC grant schemes consistent with their experience and career stage.
<b>Funding round</b>	Refers to the Investigator Grant opportunity commencing funding in the same year.
<b>Grant</b>	As defined in the NHMRC Funding Agreement.
<b>Grant program</b>	Is a group of one or more grant opportunities under a single entity Portfolio Budget Statement Program. This is referred to as a scheme in this document.
<b>Grantee</b>	An individual/organisation that has been awarded a grant. For NHMRC’s purposes, grants are awarded to the Administering Institution for the benefit of the grant recipients (however described).

Term	Definition
<b>Investigator Grant</b>	An NHMRC grant scheme to support the research program of outstanding investigators at all career stages. It consolidates salary and research support into a single grant scheme by offering a salary component (if required) and a research support package.
<b>NHMRC</b>	National Health and Medical Research Council
<b>Relative to Opportunity</b>	Researchers' outputs and outcomes should reflect their opportunities to advance their career and the research they conduct.
<b>Peer reviewers</b>	Individuals (peers) with appropriate knowledge and expertise who review grant applications.
<b>Sapphire</b>	NHMRC's electronic, secure system that allows research administrators, applicants, assessors, grant holders and NHMRC staff to manage all aspects of the granting lifecycle.

