Mitigating the Differential Impact of COVID-19 on Research

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Summary

This document describes two initiatives that were implemented at the University of Glasgow in early 2021 to mitigate the differential impact of the COVID-19 pandemic on research staff.

This report describes the purpose of the interventions, their design, and the outcome of the applications. We also reflect on the process itself, for the benefit of anyone wishing to introduce similar interventions at their own institutions, as well as feedback from successful applicants one year on from their funding.

These interventions formed part of a series of measures implemented by the University of Glasgow, supported by funding from the Scottish Funding Council, UK Research & Innovation and the Wellcome Trust ISSF, to mitigate the impact of COVID-19 on various research groups.

Background

The COVID-19 pandemic had a differential impact on the ability of researchers to work productively.

All researchers were affected in some way by COVID-19, but some experienced greater disruption than others. This uneven disruption, both during and in the aftermath of COVID-19, risked creating inequalities in the ability of researchers to work productively, or exacerbating existing ones. Differential impact arose for various reasons, including: institutional decisions made to manage the effect of the pandemic (e.g. redirecting efforts to teaching-related duties); personal circumstances; or the inability of researchers to return to campus as it reopened.

Analysing the impact and proposing the interventions

In 2020, the University's Lab for Academic Culture undertook an analysis of the differential impact of COVID-19 on research using two main data sources: sector data and analyses; and data on the University's outputs and external funding applications/awards.

This analysis revealed that the detriment on researchers was not limited to any one staff group, career stage, or discipline. Targeting our mitigation measures to specific cohorts was therefore unlikely to be effective. Instead, the adverse effects on research productivity, and the mitigation thereof, would be best captured by asking individuals to identify their circumstances and how these might be mitigated.

With this model in mind, draft interventions were developed in December 2020 and received in-principal approval from the University's Senior Management Group. These interventions were subsequently refined based on the input of four cross-University focus group discussions held in January 2021.

We had initially planned a staff survey to obtain feedback on the proposed interventions; however, given the high degree of agreement with the plan of action, the focus groups recommended that the interventions should be implemented without further delay or

consultation, reducing administrative load on our staff. So that the effectiveness of these interventions could be assessed, a short survey was sent in January 2022, to all recipients of the funding.

The interventions, which were financed by a research uplift from the Scottish Funding Council (SFC), are outlined below. The nature and timing of the interventions were influenced by the requirement by the funder to commit the funds by March 2021 and to spend them by July 2021, and the ongoing lockdown measures. At the outset of the project in August 2020, the expectation was that the interventions would occur after the lockdown period of the pandemic was over. However, the emergence of the new SARS-CoV-2 variant and the resulting re-introduction of lockdowns in Scotland in November 2020 and then January 2021 meant that the interventions were ultimately implemented while many aspects of the lockdown remained in place.

Interventions

Scheme 1: Learning and Teaching Resource to Support Research

This scheme supported the recruitment of teaching or teaching-support posts, to free up the time of Research and Teaching colleagues or independent research fellows who had, and would have had, increased post-COVID-19 teaching preparation commitments.

The head of each academic unit (School or Institute) was able to make a case for additional teaching support up to an indicative maximum of £10K per unit.

The budget could be used to support, e.g. graduate teaching assistants from the PGR or Research-only community, adjunct members of staff who might also be recently retired, or learning and teaching technology support.

Scheme 2: COVID-19 Researcher Support Scheme

An application for up to £10K could be made by individuals to pay for additional expenses over and above usual arrangements, thereby 'giving back time' to the recipient. This scheme was open to colleagues in Research-only, Research & Teaching, and Technical & Specialist roles.

Example of eligible interventions included, but were not limited to:

- Additional childcare costs, provided by a registered provider and required outside normal childcare requirements. This could include a contribution towards a summer club placement in July to enable staff to undertake research, following the end of semester 2 teaching. It could provide for wrap-round and out-of-hours childcare to support research and writing time.
- Graduate Teaching Assistant support
- Research and administrative assistance
- Archive assistance (where archives could not be visited due to travel restrictions or other limitations)
- Participation in conferences, if permissible under Scottish Government restriction-level guidelines
- Purchase of small research equipment/materials
- Work-related training
- Funds to support writing retreats/collaborative visits, if permissible under Scottish Government restriction-level guidelines

- Non-salary costs incurred during lockdown (e.g. replacement of expired reagents, animal maintenance)

Conditions

For both schemes, a small number of exclusions applied, where other arrangements for support were already in place. These included contract extensions, and the purchase of laptops, desks, chairs or internet packages. It was made clear that the schemes did not constitute a hardship fund: applications falling into hardship categories were redirected to other forms of support internal and external to the University.

Application procedure

The application procedure was designed to be as simple and as flexible as possible, to reduce the administrative burden on the applicants and the assessors. Each application was typically <400 words. Applicants were not required to obtain formal costings for their requests, thus reducing the workload on research support staff, and evidencing the commitment in our Research Strategy to trust and autonomy.

The application forms asked for details about the impact of COVID-19 on research productivity; an outline of funds required to support the mitigation of these impacts; and how they would be used to recover from the impact.

The objectives of the scheme required the mitigation opportunity to have the broadest possible visibility. Consequently, beyond the normal campus-wide email, we requested that Heads of School take a proactive approach with their colleagues, encouraging people to apply and reassuring them of the light-touch assessment that would be undertaken.

Applications were made via an online form; a downloadable form was also made available for reference and for colleagues who were unable to use or access the online form. Applicants were asked to provide equality and diversity information that would be used for monitoring and reporting purposes. Applicants were also asked to indicate whether the requested funds were being used to extend or repeat an existing purchasing route or procedure, so that support measures could be put in place to ensure the prompt utilisation of funds.

The applications were required to be approved by the head of each unit.

Applications for the two interventions were made in February 2021. Outcomes were communicated on 12 March 2021.

Evaluating applications

The applications were checked for eligibility and then assessed blind against the criteria below by an assessment panel comprising the members of the Lab for Academic Culture project (which included representation from academia, research administration, and from the University's Equality and Diversity Unit) and then ratified by the relevant Vice-Principal.

Funds were allocated to maximise the mitigation of the impact. In assessing the applications, we prioritised applications based on evidence of differential impact and on the extent to which the proposed interventions were expected to mitigate the impact on research activities.

Evidence of differential impacts included, but was not limited, to: caring and/or parenting responsibilities; bereavement; periods of sickness absence connected to COVID-19; shielding or living with a person who was shielding; restricted access to labs/facilities/research sites; loss or destruction of research materials; and impact of increased responsibilities for teaching, administration, and/or research management.

We also factored in the feasibility of spend for the proposed use of funds and likelihood of these being spent by end July 2021. For example, we considered the timescales of recruitment processes; training for unnamed Graduate Teaching Assistants or Research Assistants; and the likelihood of travel being permissible, either across or outside the UK, before the end of July 2021. The quality of the research was not in itself an assessed criterion.

Application outcomes

A total of 11 (covering 61 employees) eligible applications were received through Scheme 1 and 136 through Scheme 2. A total of £680,654.53 was awarded, in support of almost 300 researchers. The overall success of the schemes was 78% by number of applications, and 77% by value.

The University of Glasgow has 4 main organisational units, or Colleges: Medical, Veterinary and Life Sciences (MVLS); Science and Engineering (COSE); Social Sciences (COSS); and Arts (COA).

The number of successful applications was spread evenly across the 4 Colleges (34 COSS; 30 MVLS; 24 COSE; 26 COA), although a higher number of applications was received from COSS than from other colleges (51 COSS; 34 MVLS; 27 COSE; 35 COA). Because of the lower value of applications from COA, the award value for that College was lower than in each of the other colleges 26.3% COSS; 29.9% MVLS; 29.3% COSE; 14.4% COA).

Gender distribution across applicants (Female: 53%; Male: 44%; PNTS: 3%) and successful applicants (Female: 50%: Male: 48%; PNTS: 2%), was broadly similar, without any statistically significant difference. Most applicants and successful applicants were at early- and mid-career stages, with no significant difference seen between application and award rates at any stage.

Data is provided in *Appendix 1.*

The disruption caused by the pandemic was significant, particularly for some groups, e.g. colleagues who had been recruited to the university during lockdown, those with caring responsibilities, and those with a combination of circumstances.

Overall, the requests for mitigation funding fell into the following 4 main categories:

- Teaching support: hiring graduate teaching assistants to e.g. conduct marking and administration, freeing up staff time for research
- Research support: hiring Research-only staff to assist the academic applicants in e.g. conducting research or preparing funding bids
- Childcare: additional childcare to allow colleagues to catch up on research time that had been lost while schools were closed and other childcare support was unavailable (e.g. nurseries, family members)
- Equipment and other research resources or services (such as experimental reagents, books, transcription services, consultancy).

- Miscellaneous other costs, including coaching support for academic writing, editorial support, and (virtual) conference attendance.

The typical balance between these categories varied between applicants from different colleges, with COA and COSS colleagues favouring teaching and research support, and biomedical and physical scientists focusing on equipment and other research costs. See *Appendix 1*.

Successful applicants were informed that they would be sent a short survey after at least 6 months asking how the interventions had helped to mitigate the impact claimed in the application. Awardees were therefore not required to submit a formal report on the use and impact of funding.

Impact of awards

A short survey about the impact of the funding was circulated to all those in receipt of both schemes of funding. A total of 46 colleagues responded to the survey, representing nearly a quarter of those who received funding through both schemes.

c.70% of respondents felt that the funds had fully mitigated (13.0%), or partly mitigated (56.5%), the impacts of COVID-19 related disruption on their research (*Appendix 2*).

34 respondents provided free text responses relating to the impact the funding had on their research, which included outcomes such as: (co-authored) publications, research grant applications, materials to increase lab capacity and completion of a monograph.

Several respondents commented on the challenges posed by having to fulfil the spend within 3 months.

c.76% of respondents reported continued COVID-19 related disruption to their research, within the first quarter of 2022. Continued issues related to school and early learning centre closures, impacts of shielding or living with someone who was shielding, episodes of COVID-19 and related ill health amongst colleague teams, low mental health amongst colleagues and students, increased student numbers, and specific travel restrictions that remained in place at that time.

Lessons for the future

Reflecting on the interventions and the processes that we put in place to implement them, several aspects unfolded as expected, but there were a small number of things that we would do differently in future.

On the positive side, the assessment panel felt that the short-form application provided sufficient information to judge eligibility, differential impact on research productivity, and the practicality/efficacy of the recovery plan. Based on the high proportion of eligible applications and the consistency in how applications were completed, it appears that the purpose of the scheme, and the aim of the requested questions was clear to applicants. There were, however, several prospective enquiries for utilisation of the funds to support hotel quarantine upon arrival to UK by new or returning employees.

The consultation with colleagues in Finance and People and OD on the practicalities of implementation meant that we did not inadvertently create an unmanageable administrative workload. Specifically, the advice and process we put in place around requests for childcare we agreed with Finance meant that this could be handled through payroll adjustment.

Restricting the appointment of teaching and research support post to named individuals both simplified the appointment process and meant that the appointments could be made by People and OD within the required timeframe. Advanced notification of the awards of funds for these purposes supported opportunities for some forward planning amongst the resourcing and onboarding teams within Recruitment.

In terms of improvements, the guidance of any future scheme would specify more clearly the requirement for any supporting post to be explicitly named in the application, and greater clarity to be provided on what represented additional childcare provision above and beyond what would normally be required by those in research employment. In any future scheme we may also choose to ask for all requests for teaching replacement/cover to be reviewed as part a single application made by the head of the relevant unit.

The ongoing and pervasive impacts of COVID-19 related disruption were felt to be well mitigated by the funds by respondents in January 2022. However, their experiences of new or continued disruption demonstrates the longer-lasting impacts of COVID-19 beyond periods of 'lockdown'. These should continue to factor in discussions about performance, progression and any adjustment conversations or cases for support.

Conclusions

Despite the scheme being launched during lockdown, we were reassured by the number of researchers who felt able to apply and to express the ability to mitigate the impact over the subsequent 5 months (12% of our eligible workforce).

The outcomes of these interventions must be viewed in the content of a broader landscape of >£22M interventions by UofG to support other causes of research detriment, including a £3M scheme to fund PGR stipend extensions, a ~£3M investment to support the furlough costs of externally funded research staff, as well as fellowship support and bridging funds.

For example, within applications to these schemes we also received a number of requests relating to infrastructure costs, e.g. maintenance costs of research facilities. These requests were able to be supported through other aspects of the COVID-19 mitigation, but we appreciate that this might not have been possible where budgets were more restricted.

We know that the impact of COVID-19 in research continued beyond the funding period, and that the schemes outlined here were not, in and of themselves, sufficient to mitigate the full differential impact of the pandemic on research productivity.

Key take-aways

Short and simple. The 3-question, 400-word application form worked well: staff felt able to engage, and the cases were easy to assess. (Note: proposals were not ranked, but simply assessed for eligibility and efficacy.)

Trust and flexibility. A degree of trust meant that cases could be made quickly without the need for formal costings, thus saving time both for applicants and for research support staff. Specifying only a small number of ineligible costs meant maximum scope for applicants to request what they needed to mitigate the impact on their research.

Facilitating downstream mitigating actions. Pre-consultations with colleagues in human resources, finance, and research support functions allowed eligibility criteria to be clear (e.g. around childcare costs) and workloads on key services to be accounted for at award stage.

Affected groups. Our activity data drawn from across the institution and indeed profile of applications showed that the impact of COVID-19 was not restricted to groups with particular protected characteristics. However, it was clear that staff who were recruited during the lock-down period were particularly impacted.

Time-limited interventions. If time is restricted, as it was in our case, then it is essential to ask applicants to specify whether named individuals have been identified for recruitment.

Out of scope requests. Be prepared to act on interesting ideas that are out of scope of the scheme, e.g. facility costs or tips for creating more estates/laboratory capacity and training of new facility users.

Determining methods for reimbursing extraordinary expenses i.e. childcare. Additional childcare was defined as that which was over and above normal arrangements for an applicant's standard working hours. Processing these costs as benefits-in-kind via salary payments (covering the income tax and NI contributions to ensure maximum payment to applicant) means staff need to first incur the costs and produce proof of purchase. Agreeing a process for this up-front will be an important factor impacting overall costs/spend on this category of support.

Appendix 1 | Summary data

Table 1.1 Applications, Successful Applications and Success Rates by College (Aggregated Applications by College in Scheme 1 (n=11))

COLLEGE	APPS↓		SUCCESSFUL APPS↓		SUCCESS RATE
COLLEGE OF ARTS	35	23.8%	26	22.8%	74.3%
COLLEGE OF MEDICAL VETERINARY AND LIFE SCIENCES	34	23.1%	30	26.3%	88.2%
COLLEGE OF SCIENCE AND ENGINEERING	27	18.4%	24	21.1%	88.9%
COLLEGE OF SOCIAL SCIENCES	51	34.7%	34	29.8%	66.7%
TOTAL	147	100.0%	114	100.0%	77.6%

Table 1.2 Applications, Successful Applications and Success Rates by College (Scheme 1 Applications disaggregated by total number of applicants impacted (n=61))

COLLEGE	APPS↓		SUCCESSFUL APPS↓		SUCCESS RATE
COLLEGE OF ARTS	55	27.9%	46	28.0%	83.6%
COLLEGE OF MEDICAL VETERINARY AND LIFE SCIENCES	36	18.3%	32	19.5%	88.9%
COLLEGE OF SCIENCE AND ENGINEERING	41	20.8%	38	23.2%	92.7%
COLLEGE OF SOCIAL SCIENCES	65	33.0%	48	29.3%	73.8%
TOTAL	197	100.0%	164	100.0%	83.2%

Table 2. Applicants, Successful Applicants and Success Rates by Grade (Higher number of Apps by Grade represents the applications from Scheme 1 that include multiple applicants in one Application)

GRADE	APPS↓		SUCCESSFUL APPS↓		SUCCESS RATE
GRADE 6	1	0.5%	1	0.6%	100.0%
CLIN RES FELLOW	1	0.5%	1	0.6%	100.0%
GRADE 7	27	13.7%	22	13.4%	81.5%
GRADE 8	61	31.0%	53	32.3%	86.9%
GRADE 9	72	36.5%	61	37.2%	84.7%
PROFESSOR/CLIN CONSULTANT	35	17.8%	26	15.9%	74.3%
TOTAL	197	100.0%	164	100.0%	83.2%

Table 3. Applicants, Successful Applicants and Success Rates by Academic Function

ACADEMIC FUNCTION	APPS↓		SUCCESSFUL APPS↓		SUCCESS RATE
CLIN	3	1.5%	2	1.2%	66.7%
R-ONLY	27	13.7%	24	14.6%	88.9%
RT	167	84.8%	138	84.1%	82.6%
TOTAL	197	100.0%	164	100.0%	83.2%

Table 4. Amount Awarded by Category of Support Requested per College

	RA FUNDING AWARDED (£)	L&T FUNDING AWARDED (£)	CHILDCARE FUNDING AWARDED (£)	EQUIPMENT/ CONSUMABLES FUNDING AWARDED (£)	OTHER FUNDING AWARDED (£)	TOTAL FUNDING AWARDED (£)
COLLEGE OF ARTS	19,203.53	25,864.82	18,648.03	24,006.60	10,533.50	**98,256.48**
COLLEGE OF MEDICAL VETERINARY AND LIFE SCIENCES	24,329.94	19,932.00	1,297.72	156,880.54	1,400.00	**203,840.20**
COLLEGE OF SCIENCE AND ENGINEERING	40,189.71	25,175.00	19,131.99	108,266.77	6,988.00	**199,751.47**
COLLEGE OF SOCIAL SCIENCES	107,867.52	35,082.88	17,081.98	8,001.00	10,773.00	**178,806.38**
TOTAL	**191,590.70**	**106,054.70**	**56,159.72**	**297,154.91**	**29,694.50**	**680,654.53**

Table 5. Proportion Awarded by Category of Support Requested per College

	RA FUNDING AWARDED % →	L&T FUNDING AWARDED % →	CHILDCARE FUNDING AWARDED % →	EQUIPMENT/ CONSUMABLES FUNDING AWARDED % →	OTHER FUNDING AWARDED % →	TOTAL FUNDING AWARDED % →
COLLEGE OF ARTS	20%	26%	19%	24%	11%	**100%**
COLLEGE OF MEDICAL VETERINARY AND LIFE SCIENCES	12%	10%	1%	77%	1%	**100%**
COLLEGE OF SCIENCE AND ENGINEERING	20%	13%	10%	54%	3%	**100%**
COLLEGE OF SOCIAL SCIENCES	60%	20%	10%	4%	6%	**100%**
TOTAL	**28%**	**16%**	**8%**	**44%**	**4%**	**100%**

Appendix 2 | COVID-19 Research Support Scheme Evaluation Responses

To what extent did the funds mitigate the impact of COVID-related disruption on your research?

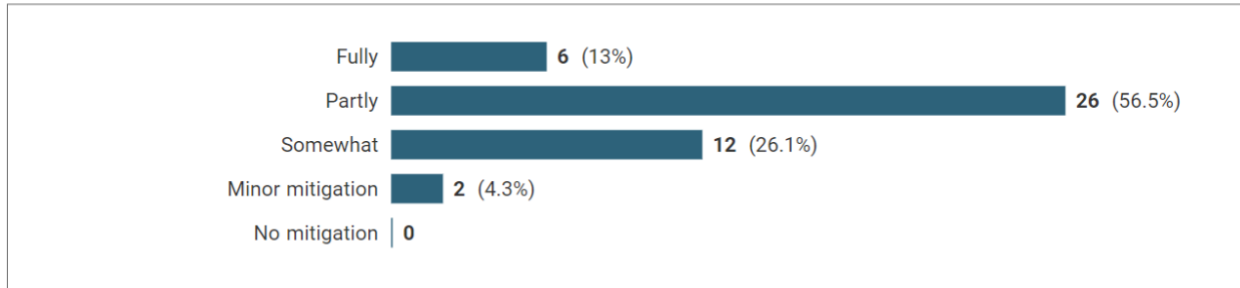|	
Fully	6 (13%)
Partly	26 (56.5%)
Somewhat	12 (26.1%)
Minor mitigation	2 (4.3%)
No mitigation	0

Figure 1. Q.2. COVID Research Support Scheme Evaluation Jan. – March 2022

Are you experiencing any ongoing, or new, impacts on your research resulting from the COVID-19 pandemic?
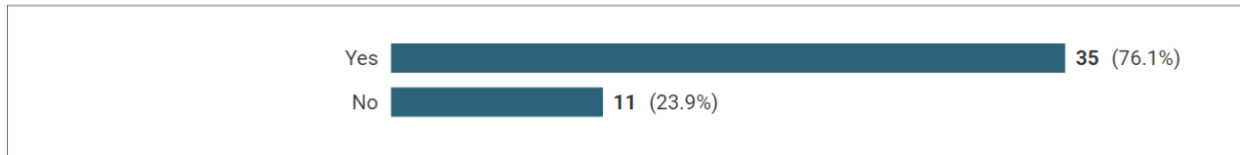
Yes	35 (76.1%)
No	11 (23.9%)

Figure 2. Q.4. COVID Research Support Scheme Evaluation Jan. – March 2022