Small Research Grants Technical Report

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The British Academy

cambridge econometrics

clarity from complexity

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Introduction

British Academy Small Research Grants (SRGs) provide funding to discrete research projects with defined outcomes (e.g. field work as a basis for future publication, publications, conferences etc.) in the Social sciences, Humanities, the Arts for People and the Economy (SHAPE) disciplines. SRG awards are capped at a maximum of £10,000, to cover a period of no longer than 24 months. Scholars with a doctoral degree (or equivalent) who are ordinary residents of the UK are eligible to apply for funding. SRG awards are intended to be small-scale and agile, to enable researchers to test out pilot studies or provide first grant opportunities to early career researchers. SRG awards are funded by a public-private partnership between the Department for Science, Innovation and Technology (DSIT) and non-government sources such as the Leverhulme Trust, the Wellcome Trust, and the Society for the Advancement of Management Studies.

Impacts

There are various impacts of the SRG programme that are intended to create societal value for the UK. The SRG scheme is intended to facilitate the production of high-quality research, build valuable professional networks, and accelerate SRGs' academic career progression. The awards support researchers in initiating and then sustaining SHAPE research projects that are too early to reasonably secure larger funding awards. SRGs support the development of these projects and enable award holders to make subsequent funding applications with the added credentials of having successfully won SRG funding and managed the subsequent project to demonstrate proof of concept. However, given the specificities of academic research, and research in SHAPE subjects, there are methodological difficulties associated with quantifying or monetising many of these impacts. Notably, the outputs of SHAPE research do not always lead to patents or enhancement of the productivity of related industries in ways that have been observed in the analysis of other disciplines (and which have been shown to be amenable to monetisation in these other fields).[1]

In Phase 1 of this project, an economic theory of change (TOC) was developed, describing the channels through which the Academy's talent development activities, like the SRG programme, create societal value (see Appendix A for more detail). This analysis identified the leveraged funding impact channel as producing benefits that are monetisable, given the Academy's current monitoring and evaluation data. Chapter 2 quantifies the catalytic effects of the SRG programme focusing on the value of follow-on research funding from non-governmental sources leveraged by, and attributable to, award holders. The value for money of the SRG programme is estimated using the present value of costs (Academy expenditure) and the present value of leveraged funding benefits to derive net present values and benefit-cost ratios for this programme.

[1] See, for example, a productivity-focused approach by Frontier Economics, Rate of Return to Investment in R&D, 2023: https://www.frontier-economics.com/media/015adtpq/rate-of-return.pdf

2. Leveraged Funding

Introduction

The SRG programme aims to produce high-quality SHAPE research, improve the research and grant-writing skills of its award holders, and position them to go on to win more significant grants from other funding sources. In this chapter, the ability to secure funding is taken as a proxy for SRG recipients' improved research and grant-writing skills. This chapter describes the approach to a net present value (NPV) analysis of the SRG programme costs, and in-scope leveraged funding benefits, before presenting the benefit-cost ratio (BCR) results.

Given the small size of the SRG awards, the Academy can provide many awards in an annual cycle, constituting a portfolio of research funded under the scheme. The primary goal of the funding is to support early stage and nascent research projects to progress to a point where they can compete for more substantial grants. The programme fills an important gap in the UK SHAPE research funding landscape by enabling projects to develop from untested ideas and novel proposals to more mature research that poses less of a risk to external funders. This study acknowledges that some award recipients will leverage additional funds after their SRG and others will not. The average funds leveraged by past award holders, excluding the very largest values, are used to estimate the leveraged funds of future cohorts.[2]

The SRG awards are targeted to a wide range of projects with the expectation that, while some projects may not raise follow-on funding from external sources, others will successfully leverage additional funds to continue their research topic. Without the breadth of projects funded each cycle, some ideas might not get SRG awards and not continue to develop into larger research endeavours. In fact, in the second round of 2023/24 SRG awards, 591 applicants were considered to have proposals that merited funding, while only 308[3] actually received an SRG award from 946 applications.

Assessors are asked to confirm that applications are good enough to be considered for funding against specific criteria – the quality and interest of the research proposal; the ability of the applicant (and any co-applicants) to make a success of it based on their past track record; the feasibility of the methodology; the feasibility of the timescale; and the appropriateness of costs requested.

The primary assessment of the quality of an SRG applicant is based on the specific research objective of the proposal, and whether the methodology and research programme outlined are likely to lead to succeed in achieving the stated research objective. The details of how the objective will be achieved - whether through research visits, use of research assistance, workshops, or any combination of eligible

[2] As explained later in this report, some SRG award holders do very well in securing follow-on funding. In these instances, the subsequent award values (leverage) can be very large relative to the original SRG. While these values are indeed reported in the evaluation data, our assumption in the analysis that follows is that such funding is less likely to be routinely obtained each year. Instead such funds may represent more occasional outsize gains in the portfolio. The analysis concentrates on the lower-value leverage before considering the added effect of occasional high-leverage funding.

[3] This includes awards funded by DSIT and other sources.

activities/costs - will be assessed only in relation to each individual application. No preference is shown between individual or collaborative modes of research. There are no quotas for different types of application, and no comparisons are made across applications on the grounds of their operational and financial specifications. For projects involving partners from other countries, assessors may take into account the availability of partner funding: in cases where partner funding is likely to be scarce, assessors may give priority to those projects which are likely to contribute to capacity building and lead to benefits for the wider scholarly community. In addition, Assessors may consider evidence of language competence where the understanding of material in a foreign language is crucial to the achievement of the research objective.

Analysis

The cost-benefit calculation for leveraged funds depends on four components (see Appendix B on the Cost-Benefit Calculation):

- Costs: equal to the British Academy's government-funded expenditure on SRGs (1)
- Benefits, consisting of:
  - the real-terms value (with 2023/24 as the base year) of subsequent (in-scope) leveraged funds (2)
  - the timing of those future funds, which determines the final NPV by applying the standard Green Book discount rate of 3.5% (3)
  - an adjustment for the additionality of those leveraged funds (4)

This section discusses the data available to inform the analysis, and how it feeds into the components above.

Data

Data were provided by the British Academy detailing the number and value of awards for the 2012/13-2022/23 SRG cohorts. There are two batches of SRG awards made each financial year and these are considered together as one cohort. These data were extracted from the Academy's database on 09/11/2023.

Leveraged funding data for the SRG programme were collected as part of a 2022 evaluation exercise. These data form the basis for the analysis in this chapter. This evaluation exercise involved a survey of 185 SRG recipients who started their awards between 2015 and 2018. Respondents were asked to provide details of the additional funding they had leveraged for their projects from UK government and non-government sources. The dates on which award recipients began and completed the SRG programme, and responded to the post-award survey, were also recorded. As set out below, this information was used to inform an assessment of the average value of leveraged funding per SRG as a consequence of the Academy award.

Financial data on the Academy's expenditures and the funds leveraged by SRGs were provided as originally spent/received i.e. in nominal values of the time (current prices), rather than accounting for inflation. This report takes 2023/24 as the relevant base year and inflates or deflates these figures as needed, into real terms. All financial data are thus presented here in constant 2023/24 terms unless stated otherwise.

Costs

Between 330 and 380 SRG awards were either made or planned for in each of the 2022/23-2025/26 financial years, with total Academy expenditure on these projects amounting to £1.9-2.8m (in 2023/24 constant prices) per cohort (see Table 2.1). In the analysis, the Academy's nominal expenditure has been converted to constant (2023/24) prices.

Table 2.1: British Academy SRG Awards by Cohort

	2022/23	2023/24	2024/25	2025/26
Total awards	380	330	330	330
Total award value (£m)	2.8	2.2	1.9	1.9

Note(s): Award values adjusted to constant 2023/24 pounds (£).
Source(s): The British Academy.

The average length of an SRG project from the sample included in the 2023 evaluation exercise is roughly 21 months. For simplicity, we assume that each award lasts two years, with little bearing on the final analysis. The award costs are incurred (paid out by the British Academy) as a lump sum in the first year and therefore do not need to be discounted as part of the NPV calculation.[4]

Leveraged Funds

Data from the 2022 evaluation exercise capture subsequent leveraged funding details for 185 SRG programme alumni from the 2015-2018 cohorts. These leveraged funds were categorised as originating from either UK government or non-government sources. This study is limited to additional leveraged funds that are classified as supplementary to those provided by the UK government, such as private and international sources (see Table 2.2).

In the absence of data that simultaneously report the source of leveraged funding and its time profile, it is assumed that award values are proportional to the number of SRGs in the evaluation sample each year. Table 2.1 shows that, from the sample of programme alumni captured in the 2022 evaluation, 113 were surveyed 3-4 years post-SRG (i.e. had completed their awards in 2019 or 2020).[5] The award year and the number of award holders have been used to map the leveraged funds to three post-SRG time periods (1-2, 3-4, and 5-6 years). This yields a set of average leveraged funds estimates over time. To mitigate double-counting across the years, the estimate for the average funds leveraged after 3-4 years (post-SRG programme) has been subtracted from that for 5-6 years. These estimates have then been applied to the known number of SRG awards in 2022/23 and 2023/24, and assumed numbers in 2024/25 and 2025/26, (as in Table 2.1) to calculate the expected future in-scope leveraged funds per cohort. While SRG award recipients do obtain significant additional funding from UK government sources these funds amount to a

[4] An assumption that instead spreads the cost over a longer period would lower the overall cost of the scheme but not to any great extent in this analysis.

[5] Programme alumni that had completed their awards at the tail end of 2018 were also included in this group, to enlarge the sample size.

transfer in Green Book (2022) terms and have not been included in the value for money analysis. Funds from international sources are in-scope because these represent funds not specifically committed by the UK to UK-based research.[6]

Table 2.2: Leveraged Funding by Source and Years Since Programme Ended (2023/24 £m)

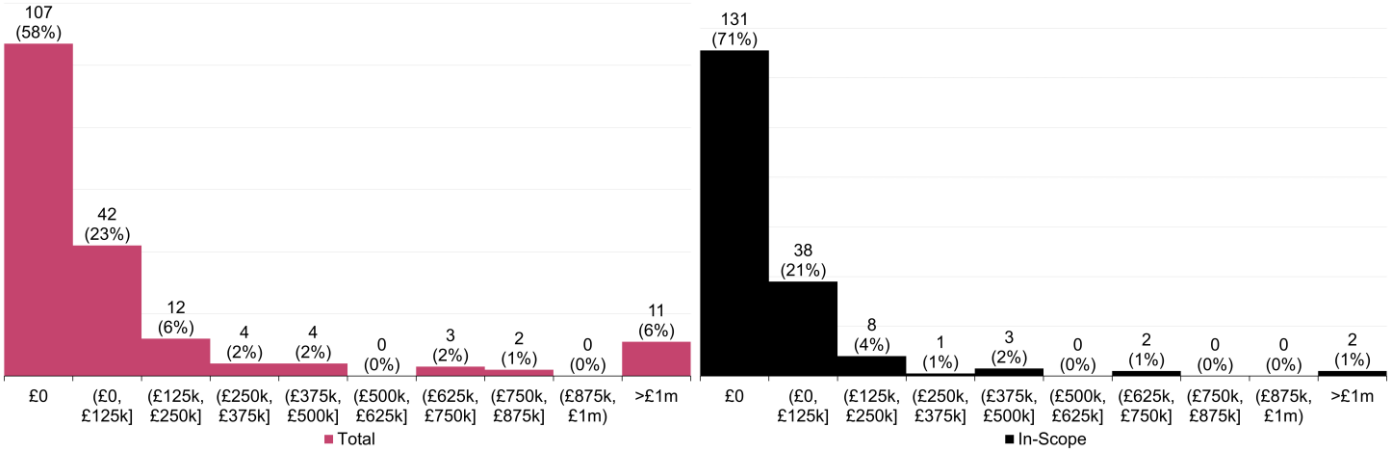
	Funding Sources	Years Since Programme Ended		
		1-2 years	3-4 years	5-6 years
	UK government	0.04	18.85	12.53
	Non-government	-	3.05	2.59
Number of SRG Recipients		5	113	65*
Average In-scope Leveraged Funds per SRG (2023/24 £m)		-	0.03	0.01**

Note(s): *From the evaluation this report is able to determine a window in which leveraged funds were secured but not the exact year following the end of the programme. This analysis assumes that, in the data, all funds are reported in 2022/23 current prices and inflates these figures to constant 2023/24 £.*
** For the purposes of annual analysis, two SRGs, which leveraged funds in excess of £1m 5-6 years post-programme, have been excluded from the figures in this table and the ensuing analysis.*
*** The average leveraged funds secured 5-6 years post-programme are adjusted from £0.04m to £0.01m to mitigate double-counting across the periods (i.e. subtracting the average funds leveraged after 3-4 years post-programme (£0.03m) from £0.04m).*
Source(s): *British Academy.*

As mentioned above, not every SRG recipient is successful in leveraging funds after the award. Figure 2.1 shows, of the sample of 185 SRG alumni respondents in the 2022 evaluation, the frequency of leveraged funding amounts by these alumni. Less than half (42%) of respondents reported leveraging follow-on funds from any source, while 29% reported leveraging funds that are in scope for this analysis. The distribution of that follow-on funding is, however, not uniform: 1% of respondents reported leveraging additional in-scope funds in excess of £1m after their SRG award. This finding shows that, while an individual SRG award may not lead to any leveraged funding benefits, the returns to the projects that do lead to further funding may exceed the total cost of the portfolio each year. For the purposes of the main analysis, we have excluded the leveraged funds in excess of £1m, it is likely that these outcomes are more irregular. In other words, year-to-year leveraged funds are assumed to be more modest, with occasionally larger values leveraged (which we discuss further later in this report).

[6] As defined, in-scope funds would also include, for example, funding through the European Research Council (ERC). This is because the funding is not guaranteed to support UK research: research consortia must apply (compete) for funding and, if successful, the funds support UK research (have been leveraged). If UK researchers are unsuccessful, then the funding supports research in other countries instead: UK research does not take place. In contrast, if SRG programme alumni are unsuccessful in receiving UK funding (e.g. from UKRI) then UK research still takes place, just by other UK researchers: no new funding has been leveraged.

Figure 2.1: Frequency of SRG Alumni Respondents Reporting Leveraged Funds (n=185)



Source(s): The British Academy; authors' calculations.

The average in-scope leveraged funding estimates in Table 2.2 are assumed to remain constant in real terms over time. In order to devise average leveraged funding estimates that can be considered representative of future cohort years the figures in Table 2.2 do not include the very largest leveraged funds, in excess of £1m. This assumption mitigates the outsized effects of individual SRGs that may be exceptional cases and which are less likely to occur on a regular basis.

The use of a constant average does, however, extend to any inflation on both the cost and benefit sides. Any per-grant increase in costs over time is already embedded in British Academy expenditure figures (in Table 2.1). However, from the evaluation alone, it is not straightforward to identify (or assume) any uprating in research funding over time. The implication is that future net present values may be somewhat overstated because real costs (from British Academy expenditure data / award values) are decreasing over time, while the value of benefits is assumed unchanged. Without further adjustment, this implies an increasing benefit-cost ratio over time but, as the results below show, the impact is not especially large over the period considered. This analysis finds that the Academy's real costs per SRG do not change significantly across the 2022/23-2025/26 cohorts, nor is there large year-to-year variation in the BCRs.

Timing

The timing of the programme costs and leveraged funds is relevant because it affects the discount rates and, in turn, the present values of future costs and benefits that feature in the cost-benefit calculation. As was described previously in the costs section, because the Academy's expenditure on the SRG programme is assumed to occur entirely in the award year, the programme costs, once expressed in constant 2023/24 terms, do not need any further adjustment.

This report assumes that the leveraged funding benefits secured by SRG holders and attributable to their awards from the Academy are secured within six years of completing the programme (following the pattern of funding identified above). This time period is informed by the Academy's monitoring data and the time between respondents completing the SRG programme and responding to the evaluation survey. While respondents may have secured the additional leveraged funds they reported in the evaluation at any point between completing their award and the survey date, this analysis assumes that funds were secured at the end of the reported period and are evenly distributed over the final two years.

Table 2.3 presents the present value (i.e. after discounting) of both costs and leveraged funding benefits by SRG cohort.

Table 2.3: Present Value of Costs and Benefits (2023/24 £m)

	2022/23	2023/24	2024/25	2025/26
Present value of costs (£m)	2.8	2.2	1.9	1.9
Present value of benefits (£m)	12.7	11.0	11.0	11.0

Note(s): Values are discounted using a 3.5% discount rate, following the Green Book (2022).

Additionality

Even though the funds identified as in scope for this exercise may not be drawing in or displacing UK government resources from elsewhere, it is still possible that the aforementioned funds could have been secured in the absence of an SRG. This requires an assessment of the additionality of the SRGs: the extent to which award recipients are able to leverage funds that would not otherwise have been secured without an SRG.

It is not straightforward to identify the further funds that could have been secured without British Academy SRGs. This requires consideration of factors such as the availability of alternatives to an SRG, whether researchers might have applied for and secured further funding anyway (possibly from different sources), and the extent to which SRGs enhance research skills and the ability to write successful grant applications. Considering the relatively small value of SRG awards (less than £10,000), the range of additionality assumptions considered in this analysis is between 30% and 60%.

The final calculation is relatively more sensitive to the additionality assumption and, given the uncertainty, a range of values is considered, with additionality of 50% taken to be the central/main assumption (see Table 2.4).

Table 2.4: Additionality Assumptions

Additionality		Description	Comments
High	60%	A majority of the subsequent leveraged funds are additional in effect: 40% of further funding could have been leveraged without the original grants.	Considered to be quite possible.
Central	50%	Half the leveraged funds are additional. (Half would have been secured regardless.)	Main estimate.
Low	40%	Low additionality: Less than half the leveraged funds are additional. (60% would have been secured regardless.)	-
Very Low	30%	Low additionality: less than a third of the subsequent leveraged funds are additional. (70% would have been secured regardless.)	Considered implausible but tested nevertheless.

A 2022 external evaluation of the SRG scheme, which focused on 300 award recipients from the 2015/16-2018/19 cohorts, found that a majority (53.2%) of respondents felt that their awards from the British

Academy had helped them to secure additional funding from external sources.[7] Award holders cited the reputation of the British Academy, and the SRG programme in particular, as contributing positively toward subsequent funding applications. In addition to the prestige of the Academy, the SRG is an important indication to external funders that a researcher is able to win funding and manage a project. Respondents emphasised that, “Securing an award is paramount especially in the early stages of one's academic career”, and, “Small grants are especially important for academics in getting onto the funding ladder, but also for funders to avoid a situation where large grants are consistently going to a small pool of senior academics for no reason except that they've received funding previously and whether or not they're actually any good. Hence small grants stop your ‘talent pool’ from getting too stagnant and in this sense have a direct benefit to you as well as to the projects that you fund”.

Programme alumni also highlighted the unique and vital role of SRGs in the UK SHAPE funding ecosystem. The programme enables researchers to conduct pilot studies and develop research projects to a point at which they are then able to apply for more significant funding. Without the SRG many of these projects may not have progressed to a point at which they were viable for larger or longer-term funding. In support of this, respondents were quoted as saying, “The SRG scheme is fantastic and the only scheme of its kind in the UK. This level of funding is so important for getting projects off the ground or for allowing smaller projects to flourish…” and “The SRG scheme is fantastic, both to develop new research projects and also for early career researchers to get on the research funding ladder”. The SRG programme integrates researchers into an extensive and collaborative network that catalyses further research outputs and connects them with potential external funding sources.

Consultations with the British Academy have echoed the sentiments expressed in this evaluation. Broadly, award holders perceive the SRG as having a direct and positive impact on their ability to leverage future funding. Without the SRG award, it is highly likely that many successful projects would not have been pursued or progressed to a stage where they were able to leverage any additional funding at all. These qualitative reports, and the aims of the SRG programme, support an argument for ruling out the lower additionality levels of 30% and 40%.

However, it is not straightforward to establish (or assume) that all or most of these projects would not have gone ahead were it not for the British Academy award. It is also difficult to evidence that the reported additional funding, or a significant share thereof, could not have been secured otherwise. The SRG award is deliberately capped at £10,000 and paid out over a relatively brief period. Some SRG alumni go on to leverage significant grants for their projects and attributing the bulk of these funds to the substantially smaller SRG may be an over-estimate. As such, while a figure of 60% is not implausible, it is not this report’s main estimate.

Results

Table 2.5 presents the estimates of the benefit-cost ratios (BCRs) of the funding leveraged by SRG award holders treating the costs and benefits principally in financial terms. Given the uncertainty of, and sensitivity to, the additionality assumption, four sets of BCRs are reported, testing the likely leveraged funding benefits secured as a result of SRG awards. The estimates are based on figures for costs and leveraged funds as

[7] L Meagher, A Kettle, External Evaluation of the British Academy/Leverhulme Small Research Grants Scheme.

above, discounted over time, spanning the eight years following the SRG award.[8]

In the central case, the overall leveraged funding BCRs are in the range 2.25-2.98. Every £1 of SRG funding thus generates a further £2.25-2.98 (in present value terms) of research funding over eight years from in-scope leveraged funds. This estimate does not include the returns to the research itself produced by SRGs following award. The BCR estimates in Table 2.5 only capture a narrowly-defined benefit of the SRG programme. The portfolio of SRG awards in each cohort year leverage additional funds which exceed, by more than a factor of two, the costs of SRG awards to the Academy. Even in the lowest case (very low additionality of the award, of 30%), the leveraged funding benefits of the SRG programme amount to 135%-179% of programme costs i.e. generating research over and above that which the Academy has chosen to fund (see Table 2.5).

Table 2.5: Total Estimated Leveraged Funding Benefit-Cost Ratios (BCRs) by Cohort

Scenarios	Additionality	2022/23	2023/24	2024/25	2025/26
High	60%	2.70	2.95	3.51	3.57
Central	50%	2.25	2.46	2.93	2.98
Low	40%	1.80	1.97	2.34	2.38
Very Low	30%	1.35	1.48	1.76	1.79

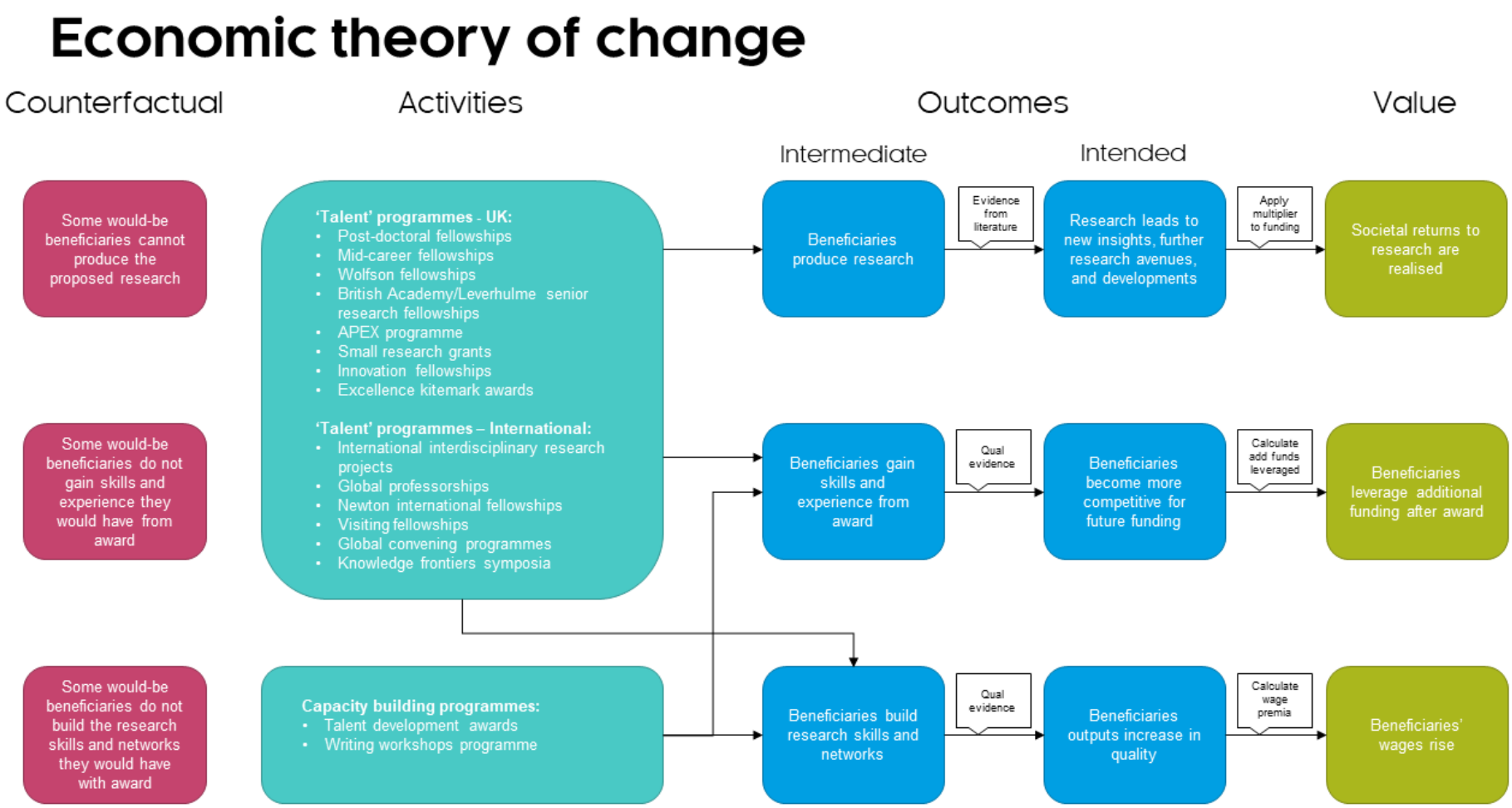
Note(s): Leveraged funding figures are discounted over the course of the fellowship using the standard Green Book discount rate of 3.5%.
Source(s): Authors' calculations.

As mentioned above, these benefit-cost ratios consider the benefits of SRG award without including alumni who leverage follow-on grants of more than £1m (amount roughly half the annual costs of funding a cohort of SRGs). If these follow-on funds were included in the average leveraged funds calculation, the BCRs in the central case could be as high as 5.80-7.68. Without more information on the likelihood of SRG recipients leveraging very large grants post-award, the more conservative BCRs that exclude these values are preferred, though.

[8] The seven-year period is a product of the data contained in the 2023 evaluation exercise.

Appendices

Economic Theory of Change



Cost-Benefit Calculation

The benefit-cost ratio (BCR) is given by:

$$BCR = \frac{benefits_{NPV}}{costs_{NPV}}$$

That is, the BCR is the ratio of benefits to costs once *converted to a common unit* (most typically money) and *expressed in net present value* (NPV) terms.[9]

The BCR gives an indication as to whether an action (which carries a cost):

- generates a net cost, because the benefits are less than the costs (BCR < 1)
- breaks even, with the benefits equalling the costs (BCR = 1)
- generates a net benefit, because the benefits exceed the costs (BCR > 1)

The analytical challenge is that, while costs (past or planned British Academy expenditure) are usually known, benefits and, in turn, the BCR, must be estimated, and in NPV terms.

The approach is to estimate the BCR from the available historical data and then apply it to future costs to project the benefits of future expenditure. This rests on the assumption of a stable BCR i.e. that the historical BCR is a reasonable estimate of the future BCR. Given a(n estimated) BCR, the expected benefits of an action can be calculated from the costs as a rearranged version of the above:

$$benefits_{NPV} = costs_{NPV} \cdot BCR$$

And the net benefits can be calculated as:

$$net\ benefits_{NPV} = benefits_{NPV} - costs_{NPV}$$

Note, however, that it is challenging to fit all impacts of the British Academy's research funding into such a quantitative framework. Not everything is straightforward to quantify, let alone monetise, and estimates are subject to uncertainty. The impacts set out in this report are thus relatively narrow and concern the value of additional research funding leveraged as a result of British Academy activities.

[9] Net present value captures the idea that impacts further into the future are worth less than if they had occurred today. By the application of a discount rate, an impact in 2026 (say) can be expressed in equivalent 2023 terms.