

An Evaluation of the First Prosper Career Development Pilot



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A. Executive Summary

The aim of Prosper, funded by Research England, is the creation of a new, holistic model for postdoc career development across the Higher Education sector – one that unlocks postdocs' potential to thrive across multiple career pathways, both within and – crucially – beyond academia. Prosper's objective is nothing less than a transformation of research culture – to pioneer an approach that empowers postdocs to take full control of their careers, to the benefit of themselves, the institutions they work for, and society as a whole.

The first Prosper pilot represents the creation, refining, and initial testing of this new approach. In March 2021, 53 postdocs from The University of Liverpool were selected to join the first Prosper cohort. Over the course of a year, we endeavoured to turn this group into a mini-community, with whom we co-created a broad offering designed to meet their career development needs as a whole. This offering included career coaching, engagement with and exposure to employers across 12 broadly defined career clusters, and a variety of workshops, sessions, and asynchronous resources – all of which was adapted to feedback and input from the cohort itself along the way. At every turn the cohort was encouraged to engage with Prosper as a group, and to network and share amongst themselves.

What follows is a comprehensive evaluation of this cohort, measuring the impact it had on their confidence and aspirations, as well as behaviours and outcomes relating to their future career plans. This was informed by both quantitative and qualitative data gathered over the course of the year, including surveys, participation and engagement statistics, focus groups, and the journal entries participants were encouraged to write to track their experiences and progress. Our quantitative data in this report is based on the 42 out of 53 participants (79%) who completed both the cohort entrance and exit surveys.

One of Prosper's core aims, above and beyond facilitating career outcomes, is to engender a change in postdocs' mindsets regarding how they think about themselves and their future. The pilot had a marked and statistically significant impact on participants' confidence across 18 ability areas, measured on a five-point Likert scale score. The postdocs showed significant growth in their abilities to reflect on their personal self, transform their skills to meet what employers beyond academia are looking for, identify opportunities beyond academia, and develop job applications. The most impressive leap was in the area of identifying opportunities beyond academia, which showed an improvement of just over 2.5 points of standard

deviation over the course of the 12 months – with confidence in developing job applications close behind showing a 2+ point change.

Prosper also aimed to transform perceptions about careers beyond academia. Here, too, we recorded a significant increase in postdocs saying they can imagine themselves working beyond academia, saying they aspire to work beyond academia, and saying they do in fact expect to end up working beyond academia.

The observed changes were not limited to mindset and attitude. The positive shift in confidence and perception additionally translated to a notable shift in behaviour. Over the course of the year, 29 (out of 42) respondents used what they had learned to actively engage with employers beyond academia, outside of Prosper – some for the purposes of networking and information gathering, others in course of applications and interviews for roles.

25 (out of 42) respondents applied for jobs both within and beyond academia during their time with Prosper, with just over half of this group applying for roles beyond academia. Perhaps the strongest indication of Prosper's impact can be seen in the fact that, at the time of writing, 17 of the participants have concretely transitioned into new roles and jobs; 10 securing a variety of roles in beyond academia, 7 securing roles within academia.

Feedback on the Prosper experience was positive across the cohort. Almost all the members of the first cohort reported that their experiences of engaging with Prosper met their expectations, and that they would recommend Prosper to other postdocs. The major barrier to participants' engagement that emerged in the beginning was time management – the challenge of balancing cohort activities with their own demanding workloads and life commitments. However, this abated as the year went on, with 62% saying they were able to comfortably balance their research projects with Prosper by the end. Over the course of the year, participants spent an average of nearly 100 hours on Prosper.

All in all, we hope the reader will note the significant impact that the Prosper pilot had on the lives and career trajectories of the postdocs who participated. We believe this report illustrates and underlines the transformative potential of giving postdocs the sort of holistic support that Prosper represents.

B. Introduction

Prosper was launched in 2019, the result of a £4.4 million grant from Research England. Led by The Academy at The University of Liverpool, in partnership with Lancaster University and the University of Manchester, its vision is to develop a new and transformative model for postdoc career development for roll out across the country at the end of the project. The aim is to create a model whereby postdocs are given the resources and tools to figure out their priorities, skills and strengths. To support them in developing the confidence and ability to self-direct their career development, and to widen their horizons in terms of career trajectories and opportunities beyond academia. (Chen, McAlpine and Amundsen 2015; McBride and Charwood 2021).

As a key part of the creation of this model, Prosper ran a pilot with a view to creating a mini community of postdocs with whom it could co-create, refine and test its novel approach. 53 postdocs at The University of Liverpool were selected to participate in a cohort that ran over a year from March 2021 to March 2022. The pilot was accompanied by an in-depth and rigorous evaluative process, in order to test its various elements and measure the impact on the participants. This report showcases the findings of that evaluation.

It is our hope that these findings illustrate the importance of the Prosper model, and give a sense of just how transformative and impactful the approach has been on the lives and careers of the participants. At the time of writing, Prosper is undertaking a second year-long pilot cohort programme – larger in size and this time also including postdocs from our partner institutions, Lancaster University and The University of Manchester. The findings of the evaluation have been crucial to informing and moulding this second pilot – we hope that they will also inspire other institutions across the country to appreciate the benefits Prosper could bring to their own postdoc communities, ahead of the national rollout in Summer 2023.

C. Overview of the first Prosper pilot cohort

In March 2021, 53 postdocs from a range of disciplines across The University of Liverpool were selected to participate in a year-long ‘cohort’. The aim was to create an active and diverse community ([see our blog post](#)) with whom Prosper could develop and refine its offering according to their needs, adapting the model to their feedback along the way. Prosper worked with participants to create a holistic career development offering designed to cater to different aspects of their career development needs in an interconnected way. Sessions, workshops and asynchronous resources were developed around three broad areas:

Reflect: This was all about encouraging postdocs to engage in guided self-reflection – giving them the tools and support needed to take stock of their own personal career situation, and to identify their strengths, skills, values, preferences and goals.

What do I like about being a postdoctoral researcher? What do I dislike? What are my values? What really matters to me in terms of what I want from my career? What types of work and environment suit me best? What skills and strengths do I have, and do I have any weaknesses or gaps that I need to attend to or bear in mind in planning my future career trajectory?

These are all deep and thorny questions that many postdocs rarely get the chance or time to properly consider and reflect upon in a structured way. Yet this type of self-understanding is crucial to realising our potential, and for cultivating the ability to make appropriately informed and pro-active choices when charting future career paths – to make it so that our careers work for us rather than vice versa.

Explore: This was about taking the self-knowledge accrued from Reflect and turning the gaze outwards to explore the wider world beyond academia, and the plethora of opportunities, roles and organisations out there.

One of Prosper's key pillars is employer co-creation. The UK postdoc community represents a talent pool of highly intelligent, committed individuals with proven aptitude – many employers stand to benefit from recruiting people with the type of transferable skills and competencies that postdocs offer. Yet many employers don't think of postdocs as a distinct group (often including them in with graduates as a whole or PhD candidates), and while some postdocs have experience working with organisations beyond academia, others do not, and struggle to access information about sectors and employers beyond academia.

The resources on offer in the Explore portion of the pilot were aimed at connecting this disconnect. Participants were encouraged to learn about opportunities and roles across 12 'career clusters', representing the breadth of the relevant employer landscape across commerce, industry, government and NGO organisations.

Act: Armed with self-knowledge from Reflect, and a greater understanding of the wider employment landscape from Explore, postdocs were invited to put these insights to concrete use in the pursuit of job applications and professional network building. This included sessions on how to effectively network – including the use of social media such as LinkedIn, as well as CV writing (with an eye for what employers are looking for), interview tips and practice.

The community aspect of Prosper was important. Rather than a disconnected set of resources for participants to engage with purely as individuals, the idea was to

create a shared space where participants, as well as contributing to the creation of Prosper itself, would be able to bond with each other and engage in their career development as a group, sharing their fears and insights and forming a mutual network of peers.

To this end, the year was peppered with a number of cohort-building activities, including social sessions, events, and a buddy scheme. Underpinning this was a programme of group career coaching. The cohort was divided into groups of no more than 11, with each group selected to represent an appropriate mix of postdocs from different backgrounds and disciplines. These group coaching sessions, run by professional career coaches, enabled the participants to connect with each other and share their reflections, learnings and experiences with each other - in a guided manner - as the year progressed. Each cohort member had access to 15 hours of these group coaching sessions over the year. In addition to the group element, each participant was catered to as an individual with their own distinct circumstances, challenges and goals. To this end, participants were additionally assigned 3.5 hrs of individual career coaching.

All Prosper resources were collated onto the Prosper 'Portal', an online resource participants could log into to access asynchronous resources related to the different areas. Some of these were standalone resources, others provided the opportunity to catch up on live sessions and workshops that the participant may have missed (or wanted to revisit).

D. The framework used to evaluate the impact of Prosper

Over the course of the first cohort, a comprehensive combination of quantitative and qualitative data was collected, both in-depth and longitudinal. This section outlines the different ways in which data was collected, and how it has been analysed.

D.1 Data collected to monitor and evaluate impact of Prosper on the first cohort of postdocs

The **Quantitative data** collected includes:

- *An Entry survey* to:
 - a. Benchmark the cohort's EDI characteristics
 - b. Map confidence, attitude and perceptions regarding career development prior to engagement with Prosper
- *Two Pulse surveys* in July 2021 and November 2021 to track:
 - a. Engagement with Prosper
 - b. Changing patterns of career development
 - c. Feedback on different Prosper resources
- *Early Leavers Survey* to track [counted as exit survey data in this report]:
 - a. Reasons for leaving early

- b. Active pursuit of career development within the cohort as they engaged with Prosper
 - c. The overall changes in confidence, attitudes and perceptions
 - d. Feedback on different Prosper resources
- *Leavers Survey* in March 2022 to track [counted as exit survey data in this report]:
 - a. Engagement with Prosper
 - b. Active pursuit of career development within the cohort as they engaged with Prosper
 - c. Feedback on different Prosper resources
 - d. Changes in confidence, attitudes, and perceptions
 - e. Future plans to develop their respective careers
- Data on participation of cohort members which monitored:
 - a. Attendance of cohort members
 - b. Evaluative feedback for each cohort session

The **Qualitative data** collected includes:

- *Journal entries* which were used by cohort members and coaches to track and develop personalised career development strategies and trajectories
- A first set of *focus groups* in 2021 which explored:
 - a. Time management
 - b. Journaling
 - c. The Prosper portal
 - d. Community building
- A second set of *focus groups* in March 2022 exploring participants' perceptions of:
 - a. Career clusters and employer engagement
 - b. Coaching
 - c. Support from PIs
 - d. Overall experiences and feedback
- Responses to the open-ended questions in the entry, pulse, early leavers and leavers surveys.

D.2 Analysis of data

The overall analysis is primarily led by the quantitative data, which allows for generalisation across the diverse and representatively selected sample of postdocs at the University of Liverpool. This is supplemented by the qualitative data which adds colour and depth to the quantitative findings. The analysis of quantitative data involved preliminary descriptive analysis (averages and trends) followed by more complicated statistical processes where suitable. For this, the quantitative data (from the entry survey, the first pulse survey and the exit surveys) was cleaned, coded and entered into SPSS¹ (Statistical Package for Social Sciences). SPSS and Microsoft Excel were used to analyse this data and produce the findings discussed in the next section. A majority of the data on confidence, perceptions and feedback on the

¹ A software developed by IBM for data management and analysis

²<https://prosper.liverpool.ac.uk/blog/prosper-career-development-pilot-ensuring-a-diverse-cohort/>

experience of being a member of the first cohort involve ordinal Likert scale data. This data was analysed to explore changes over time.

Table 1 presents the diversity and representativeness of the cohort across different EDI (equality, diversity and inclusion) characteristics and disciplines. Out of 53 participants recruited to the cohort, 42 participants completed an exit survey (7 early leavers and 35 via the end of cohort survey) as well as the entrance survey. The breakdown of participants by EDI factors often results in groups too small in number to allow for rigorous statistical analysis. For instance, when age is statistically mapped, since there are only 5 participants who are between the age of 41-55 who also responded to the exit survey, even the mean for the 41-55 age group is misleading. Similar limitations are observed for breakdowns according to discipline and ethnic background. These limitations (due to the size of the sample) were circumvented in instances where all participants had similar responses. For instance, all the cohort members had positive feedback to Prosper and positive feedback to coaching.

TABLE 1: RESPONDENTS TO THE ENTRY AND EXIT SURVEYS (IN PERCENTAGES ROUNDED UP)

Category of Identity	Identity	Entry Percentage (N=53)	Exit Percentage (N=42)
Gender	Non-Binary	4	5
	Male	42	38
	Female	55	57
Sexuality	Prefer not to say	9	10
	Straight/Heterosexual	83	83
	Gay Man	2	2
	Gay Woman/Lesbian	2	2
	Bisexual	4	2
Age group	26-30	23	26
	31-35	43	41
	36-40	23	21
	41-45	8	7
	46-50	2	2
	50-55	2	2
Disability	Cognitive impairment, mental health difficulty	2	0
	Long standing illness or health condition	4	5
	Mental health difficulty	2	2
	Specific learning disability	6	7
	No known disability	85	83
Ethnic group	White English Welsh Scottish or British	47	50
	White Irish	4	5
	Any other White background	23	26
	Chinese	2	2
	Asian or Asian British-India	6	7
	Asian or Asian British-Pakistan	6	2
	Other Asian background	2	0
	Black or Black British - African	4	2
	Other Ethnic background	2	2
	Other Mixed background	6	2
Caring responsibility	No	68	71
	Yes	28	24
	Prefer not to answer	4	5
Discipline	Health and Life Sciences	62	64
	Humanities and Social Sciences	9	12
	Science and Engineering	28	24
Total		100	100

E. Findings

This section of the report presents the analysis of the quantitative and qualitative data. The findings are split into two sections. The first section presents the impact on the postdocs and their outcomes-to-date from participating in Prosper. This includes changes in confidence levels relating to various aspects of their own personal career development, changes in perceptions regarding careers beyond academia, and changes in career development practices such as interacting with employers and applying for jobs. The second set of findings focuses on feedback from the postdocs regarding their experiences of Prosper and its resources.

E.1 Impact and Outcome based findings

E.1.a Impact on postdocs: changes in confidence

One of Prosper's key objectives is to improve postdocs' confidence regarding their ability to reflect upon and actively pursue their career development. This section explores how the members of the first cohort reported changes in their confidence levels over the course of their time with Prosper. Confidence in different aspects relating to career development (such as identifying personal skills, identifying careers of interest, developing job application, discussing career development with their PIs, and more) was tracked via 18 questions or variables (see figure 1). Participants were asked to rate their confidence levels for each statement at two junctures - once at entry and then again at the conclusion of their engagement with Prosper. Participants were asked to rate their confidence on a five-point Likert scale score between 1 (not at all confident) to 5 (completely confident).

The results show clear improvement across all 18 variables over the course of participants' engagement with Prosper. Nonetheless, Figure 1 illustrates that the improvement was not uniform across all the variables. For instance there was relatively larger growth in variables such as identifying career development opportunities and resources, and awareness of attributes employers look for when hiring postdocs. Conversely, the variables relating to discussing career development and opportunities with PIs showed a relatively smaller degree of improvement.

Given the interrelated nature of these variables, we undertook a factor analysis to identify those which tended to change together (and are therefore more likely to indicate common underlying factors). This analysis showed a very clear set of commonalities relating, respectively, to the following areas:

- Self-reflection and career development
- Discussion with [one's] PI
- Identification of opportunities beyond academia
- Development of job applications
- Transforming skills

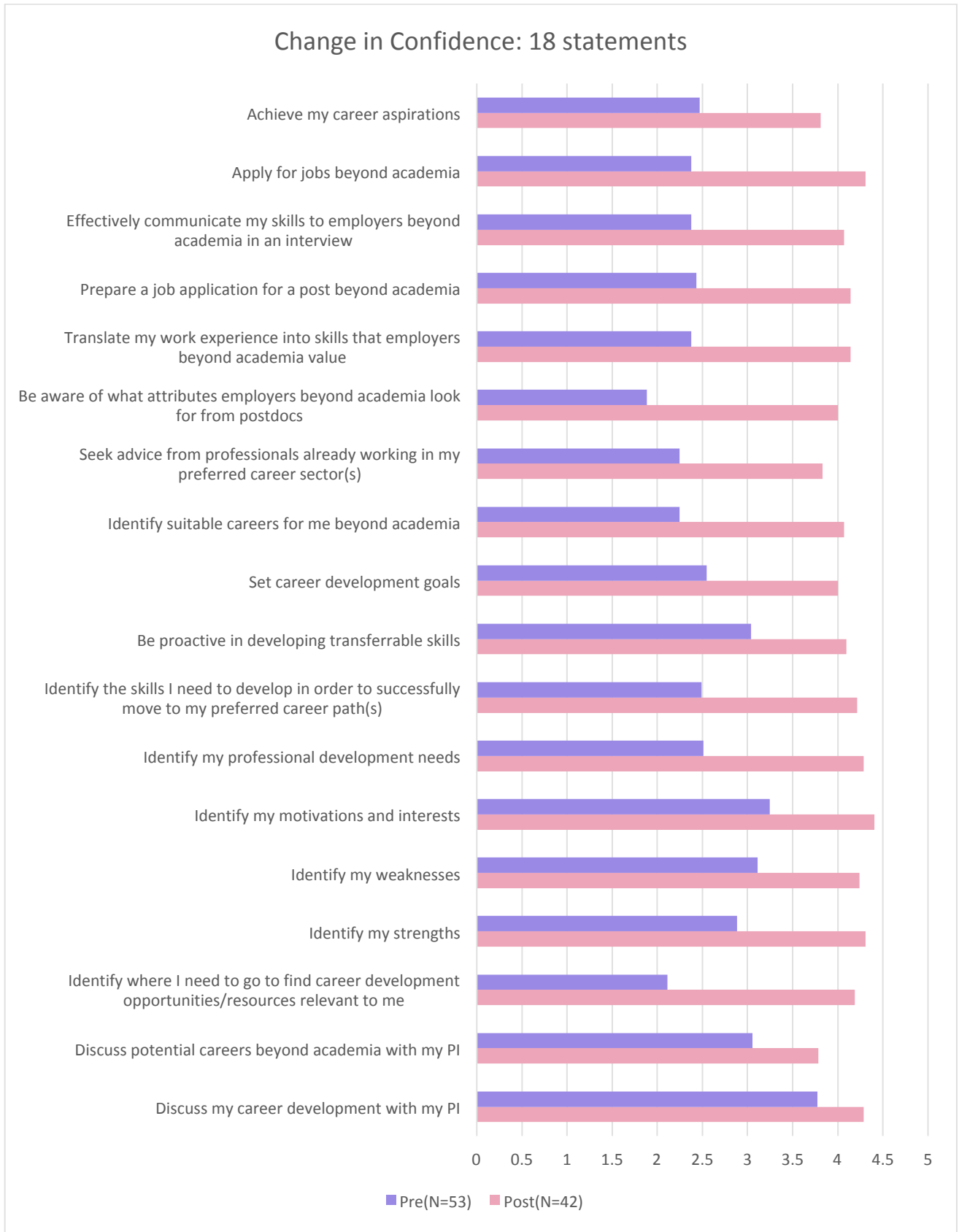


FIGURE 1: CHANGE IN CONFIDENCE: 18 STATEMENTS

Full details of our approach here are included in Appendix 1. The collective improvement in confidence across these five common factors is presented in Figure 2. These results indicate that across the cohort, postdocs showed a significant growth of confidence in their abilities relating to:

- Self-reflection and career development
- Transforming of skills
- Identification of opportunities beyond academia
- Development of job applications

It is evident that the greatest and most impressive forward leap in terms of confidence is observed for identifying opportunities beyond academia (more than 2.5 standard deviation of change) followed by developing job applications (more than 2 standard deviation of change), self-reflecting for career development (more than 1.5 standard deviation of change) and transforming skills (more than 1.25 standard deviation of change). With the method we used a score of +1 or above indicates a statistically important improvement. We found that though there had been an improvement in confidence in “Discuss with Principal Investigator”, this was not statistically significant (see appendix 1). These positive changes in confidence reflect statistically important improvements in confidence within the first cohort, brought about through the participants’ engagement with Prosper.

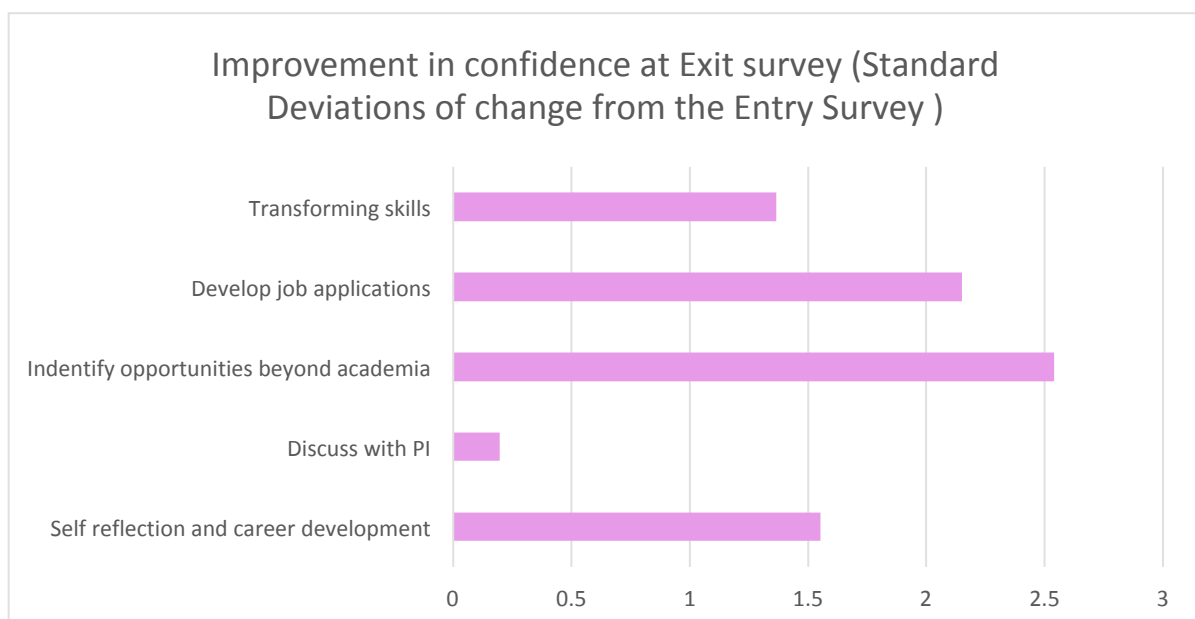


FIGURE 2: CHANGE IN CONFIDENCE ACROSS TIME

The following qualitative testimonials further illustrate the positive changes observed across the cohort:

“Prosper has been an amazing journey full of self-discovery and development opportunities. Looking back, when I joined the first cohort, the biggest asset I had was an open mind. I did not know what to expect, however, the Prosper

team were supportive and engaging, my coach was amazing and supportive and it was great to meet other Postdocs from different schools in the university whom I would have not met if it was not for Prosper. I have learned so much about myself and Prosper has given me the opportunity to explore different paths that I would have not had the confidence to explore a year ago.”

“Prosper has provided the resources to put me in a position where I can confidently pursue my career ambitions.”

“After this year with Prosper, I feel much more confident about my ability to find a job beyond academia and develop my career independently.”

“When I first started Prosper I was ambivalent about whether or not to stay in academia or to aim for a career elsewhere. I enjoy my work, it matches my values and interests and if there was permanency I would happily work in academia for life. However, I cannot stay on fixed term contracts indefinitely and there may be no choice about leaving if the post comes to an end. The main questions I had were - if not academia where else can I go? How do I decide? What do I need to do to make that transition? These are all questions that Prosper has helped me answer. It has also given me access to a wide range of formal and informal resources and I feel far more confident about how to make a change when the time comes to do so.”

Our combination of quantitative analysis and qualitative inputs, in the form of feedback from the first cohort, demonstrates a clear overall growth in confidence among a diverse group of postdocs to identify their own abilities, interests and priorities, and pursue their personal career development goals.

E.1.b Impact on postdocs: change in perceptions about careers beyond academia

Another key objective of Prosper is to broaden postdocs’ horizons in terms of awareness of and interest in career opportunities beyond academia. Prosper aims to furnish them with information about the wide range of options open to them given their skills and accomplishments to date. This effort to transform perceptions is crucial to stoking aspirations to both consider and actively pursue careers beyond academia.

The quantitative surveys at the beginning and conclusion of the first cohort asked participants about their aspirations in order to trace their perceptions regarding careers within and beyond academia. This was done through a set of five questions. The following figure (3) illustrates the mean responses at the start and end of the cohort for these questions. It is evident that across the cohort there was a positive change in terms of openness to career opportunities beyond academia.

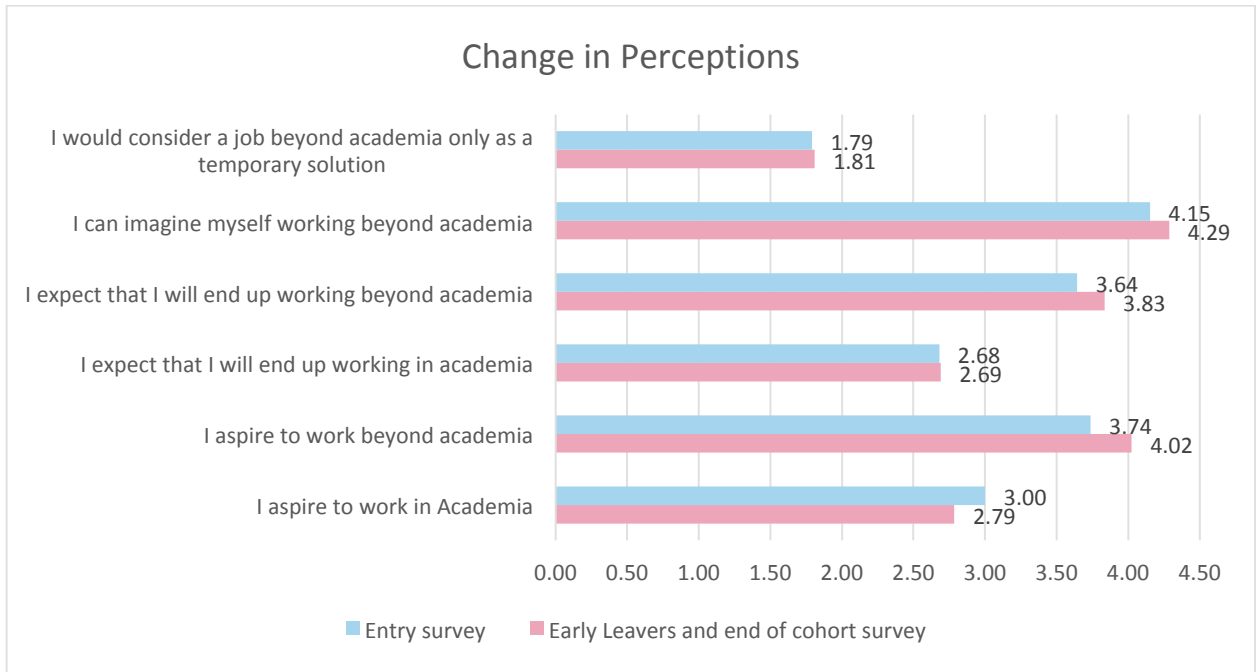


FIGURE 3: CHANGES IN PERCEPTIONS

Figure 3 illustrates this shift across a number of metrics. It shows a growth in the percentage of participants aspiring to work beyond academia, and an attendant reduction in the percentage of respondents who aspire to work in academia, over the course of the pilot. Appendix 2 includes graphs which explore the changes in perception over time in greater detail. The following qualitative testimonials from cohort members further demonstrate how Prosper inspired changes in perception regarding careers beyond academia:

“I have worked a lot on self-reflection, this is helping me a lot to understand myself, what I can achieve and what I really like. The sessions (e.g. CV, Prosper Employer Panel etc.) helped me a lot to understand that there is a world of possibilities out there, leaving academia doesn't have to be a “downgrade” career-wise. It may actually allow me to fulfil my potential.”

“I particularly enjoyed the start of Prosper as it was important to start by highlighting the transferable skills that we all have as post-doctoral researchers. This then helped me to see that there are roles beyond academia that would suit my skillset...To try new things and move out of my comfort zone as that is when you will grow as a person.”

“I started my journey fairly sceptical about any opportunities in an industry which might agree with my values and skillset, but throughout the course of the programme I found that the roles and industries I considered broadened significantly. While I still find that my interests lie preferentially in academia, a switch to industry does not feel impossible anymore, and if the right opportunity were to appear I am significantly more likely to take it and feel comfortable with the choice.”

This section has demonstrated that across the cohort and over the course of participants' engagement with Prosper, there was a considerable change in perceptions regarding openness toward opportunities and careers beyond academia. Participants reported overcoming challenges such as scepticism and feelings of failure, and becoming more open-minded about their potential to pursue a greater range of career trajectories in the wider world. This, together with the growth in confidence observed in the previous section, had a concrete, tangible impact on how participants went on to actually plan and pursue their career development over the course of the pilot.

E.1.c Outcome: changes in behaviour

These positive changes in both confidence and perception had a measurable, tangible effect on patterns of behaviour – specifically behaviour relating to engaging with employers and applying for jobs both within and beyond academia. This section will detail the impact of the first cohort to date in terms of:

- a. Cohort members engaging with employers and organising informational interviews
- b. Cohort members applying for jobs
- c. Job offers
- d. Future plans at the end of their engagement

It should be noted that some of these figures are, by nature, 'early figures' – that is, the full impact of Prosper across these metrics would not be expected to fully materialise within the timeframe measured (some participants, for example, are still finishing their current postdoctoral contracts, others may secure jobs in the period following their engagement with Prosper and their completion of the exit survey from which this data has been compiled). We are continuing to track the career destinations and the longer-term impact of Prosper on our first cohort through longitudinal surveys,

E.1.c.i Interactions with employers

Prosper provided cohort members with information and insight into employers, organisations and career trajectories across 12 career clusters. But it was also imperative to inspire postdocs to actually engage with employers beyond Prosper themselves, and proactively identify and seek information about opportunities which could help them develop their careers. To this end Prosper developed resources to support our cohort in undertaking informational interviews. An informational interview is conducted by the postdoc and helps them to discover the skills and competencies that they will need to succeed in a particular career pathway, develop knowledge about potential career trajectories, opportunities for career development, and gain an understanding of everyday working experiences in the sector they are interested in.

Figure 4 illustrates the responses from cohort members at the end of their engagement with the cohort (early leavers and end of cohort surveys) about how

they sought out and interacted with employers and organisations through informational interviews.

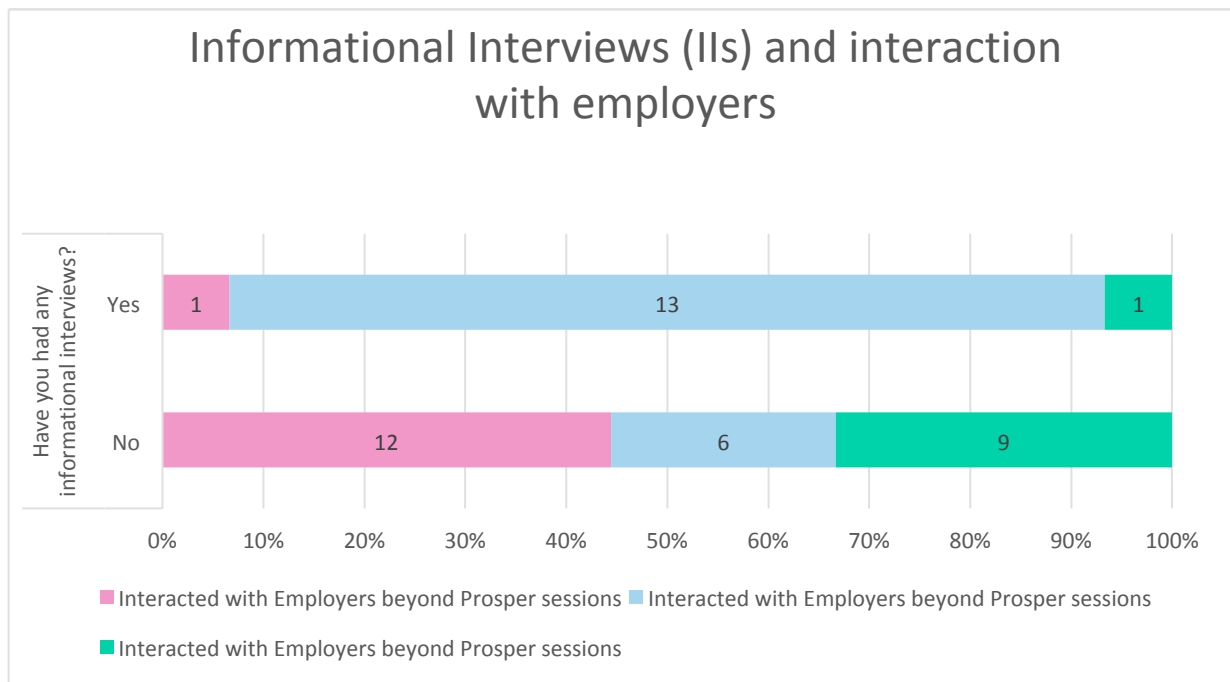


FIGURE 4: INTERACTION WITH EMPLOYERS

The figure illustrates that only 13 participants did not engage with employers beyond Prosper, and that 29 out of 42 (69%) cohort members either interacted with or actively sought out employers. It is evident that most of the participants (12 out of 13) who did not interact with employers beyond Prosper did not conduct any informational interviews. Figure 12 also demonstrates that 15 out of 42 (35.7%) cohort members conducted informational interviews with different employers and that a majority of this group (13 out of 15) interacted with employers beyond Prosper. This demonstrates that conducting informational interviews was strongly correlated with independently seeking out interactions with employers beyond Prosper. This is indicative of an active and independent pursuit of personal career development.

E.1.c.ii Applying for jobs

Applying for jobs is the second criterion through which we can observe tangible behavioural changes. This is also one of the key success outputs which is being tracked by the Prosper team. The following graph (figure 5) illustrates how almost sixty percent of the cohort members (25 out of 42) applied for jobs within and beyond academia during the course of the pilot. More than half (14 out of 25) of the participants applying for jobs reported only applying for jobs beyond academia.

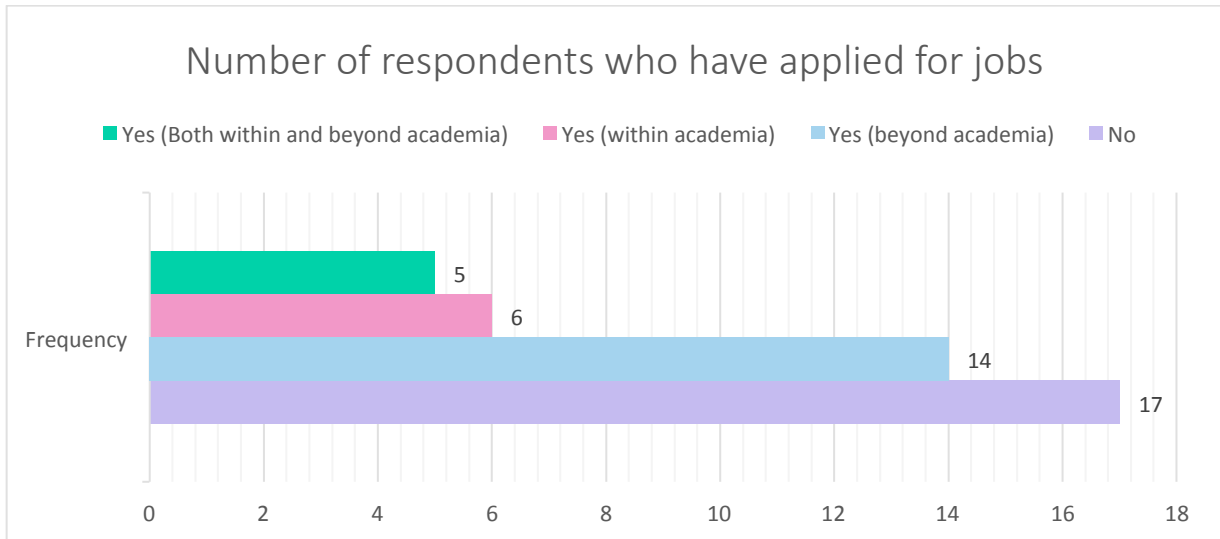


FIGURE 5: FREQUENCY OF RESPONDENTS APPLYING FOR JOBS

This indicates that over the course of the first cohort, Prosper has been able to improve postdocs' ability to confidently self-direct their own career development by identifying their skills and interests, identifying resources, employers, and opportunities, and applying for jobs.

Since applying for jobs is a significant marker of success for Prosper – and democratisation of access one of our key pillars – it is imperative that an increase here, and the nature of that increase, be observed and tracked across the different sub-groups of gender, discipline, and ethnicity. It was observed that postdocs from science and engineering are not applying to jobs within academia, whereas postdocs from humanities and social sciences are only applying to jobs within academia (see figure 6). However, it must be noted that postdocs across disciplines are learning to take charge of their own career development more broadly. For instance, this participant from the humanities and social sciences shared the following qualitative insight:

“I have put my development as a priority, which has been a major shift for me. I tend to put myself last after the project but this is not helpful for me in the long term. I have also started to think more seriously about non-academic careers and am excited by the possibilities (and much less daunted).”

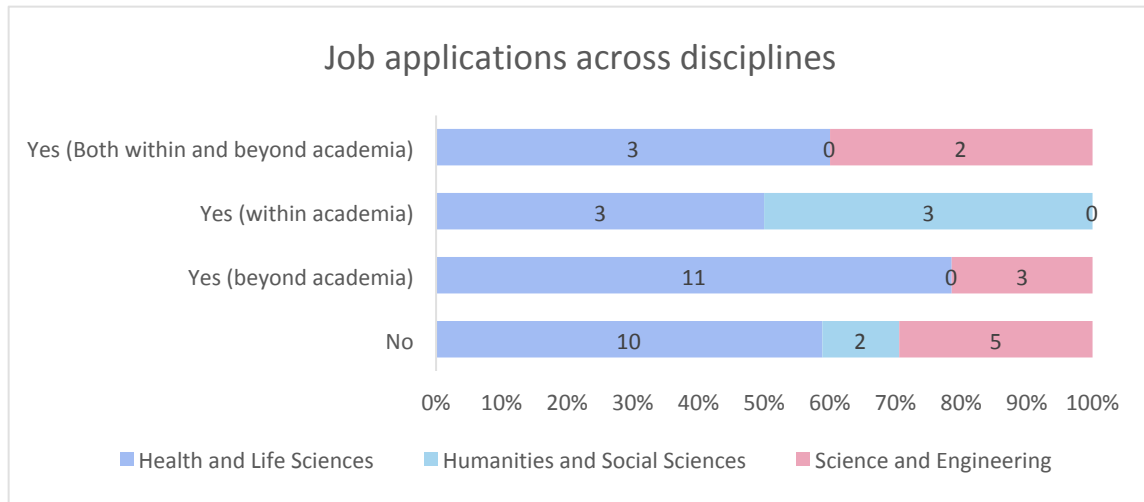


FIGURE 6: JOB APPLICATIONS ACROSS DISCIPLINES

The following two excerpts further illustrate how Prosper was able to improve the experiences of postdocs applying for jobs beyond academia:

“I was approached by a recruiter on LinkedIn about this job as they saw my profile and thought that I would be a good match for the job. It was only through Prosper that I even made a LinkedIn profile [...]. The interview process was made so much easier by having my career coach to talk to and the group coaching sessions where I could ask for help/other opinions.”

“I have applied for jobs in the past to [beyond] academia without success. Looking back with the knowledge I gained from prosper I realise that my CV was too academic and not tailored enough to the company. In this way, prosper resources were extremely useful in helping to create a non-academic CV and cover letter.”

E.1.c.iii Job offers

A total of seven cohort members left early due to securing new jobs (2 within academia, and 5 beyond academia). At the end of the cohort there were 10 participants who reported that they had received job offers (5 within academia and 5 beyond). This makes for a total of 17 participants that secured new jobs within the timeframe of the pilot (7 within academia and 10 beyond academia).

Nature of jobs accepted beyond academia:

Jobs which were accepted by postdocs who were members of the first cohort:

- Analytical Scientist at Pharmaron
- Data Scientist at the Computational Biology Facility, University of Liverpool
- Founding a consultancy company for the purposes of delivering a contract to an American company to develop their software for helping labs to manage their samples
- Senior Data Scientist at Dataseat
- User researcher, Civil Service
- Medical Science Liaison at Pierre Fabre Pharmaceutical Company
- Research Centre Manager within University of Liverpool
- International aid/cooperation officer at the European Commission for the health sector.
- Senior Data Scientist, Mosaic Tx, Wellcome Genome Campus, Cambridge
- Product development scientist at Puraffinity

Members of the first cohort have successfully secured jobs across civil services, international aid organisations, universities (in non-academic positions), pharmaceutical companies, and data analysis companies.

E.1.c.iv Career development and future plans at the end of their engagement with Prosper

Applying for jobs is not the only behavioural change targeted by Prosper. This section will explore our cohorts' future plans and strategies. For instance, one participant shares their overall Prosper experience with the following words:

“Moving beyond academia had been in my mind for a while as a route to gain more stability, but I didn't know if it would be career suicide or even where to start. Prosper has been crucial to letting me gain confidence in transitioning beyond academia and shaping my profile to develop my career in the direction I want. The coaching sessions have been instrumental in re-evaluating my goals and feeling accountable for my progress. Using the knowledge gained during Prosper has allowed me to be very confident in developing my career beyond academia and demystifying the process. I have been offered a very attractive offer in industry, and I feel like this career change would not have been this frictionless without Prosper.”

Cohort members reported development in self-awareness, confidence, and active pursuit of career development. This can be observed in the following excerpts:

“I applied to Prosper because I was concerned that I wouldn’t get an academic career or postdoc funding, so I wanted to see what else was out there. I’ve worked in industry before and was scared about having to start again from the bottom, so I was particularly interested in how I could translate my skills into something that employers would understand and re-enter the non-academic workplace at a higher level. In many ways, Prosper confirmed that I would like to pursue an academic role – academic research meets many of my natural talents and my values. However, I’ve got a much clearer understanding of my values and will not apply for job roles (academic or otherwise) that involve compromising my values. With the help of my coach, I feel much more confident saying no to opportunities, acting on information and judgement rather than out of fear. I’m still really curious about what else is out there for me; if I don’t get that academic job, then I’ll happily close the door”

“I joined Prosper with an idea of what career I want long-term, but not quite how to get there. I considered myself lucky to have a good job as a postdoc and was prepared to stay for as long as it lasts. As part of Prosper, I began asking myself if staying in my current role is the best option towards achieving my long-term goals. I came to the conclusion that it is better (but far more effort and initiative) to leave early and gain experience in the role I ultimately want than it is to stay in my current position for a few extra years. I spent time preparing for the applications and started actively searching for my next position. I am still searching but I feel like I have everything I need to be successful.”

“When I first started I felt lost as to what to do, whether that was outside of academia or staying in academia, and then, how to approach either of these. Since being part of Prosper I feel much more confident in how to approach my career and its development and looking at jobs outside of academia is not scary at all. I know that I can try something and if it doesn’t work out I can look elsewhere, nothing is set in stone. I think I feel that my career lies outside of academia now, but I want to apply for the right job. I feel know how to look for this now and have the knowledge in how to approach it.”

The pieces of qualitative feedback demonstrate the extent to which postdocs felt Prosper helped them develop the tools to self-direct their own future career development. Figure 7 represents the variety of future plans envisioned by participants at the end of the cohort. This figure was generated through a single question which encouraged respondents to identify all the statements which are true for them. It is evident that although a large proportion (22 postdocs) are continuing with their current postdoc position, a similarly large group (18 postdocs) are applying for jobs beyond academia. 10 are applying for different positions within academia, 11

are starting a new job beyond academia (we have details of 10 who received job offers beyond academia from the end of cohort and early leavers surveys), and seven are starting a new position within academia (in the end of cohort survey only five have reported to have received job offers within academia). Readers will note the discrepancies here in the numbers with regard to how participants have reported applying for jobs, receiving job offers and future plans. This will be followed up in a longitudinal survey which is being designed for the first cohort, to continue to ‘check-in’ on their plans and activities at regular intervals following the end of the pilot.

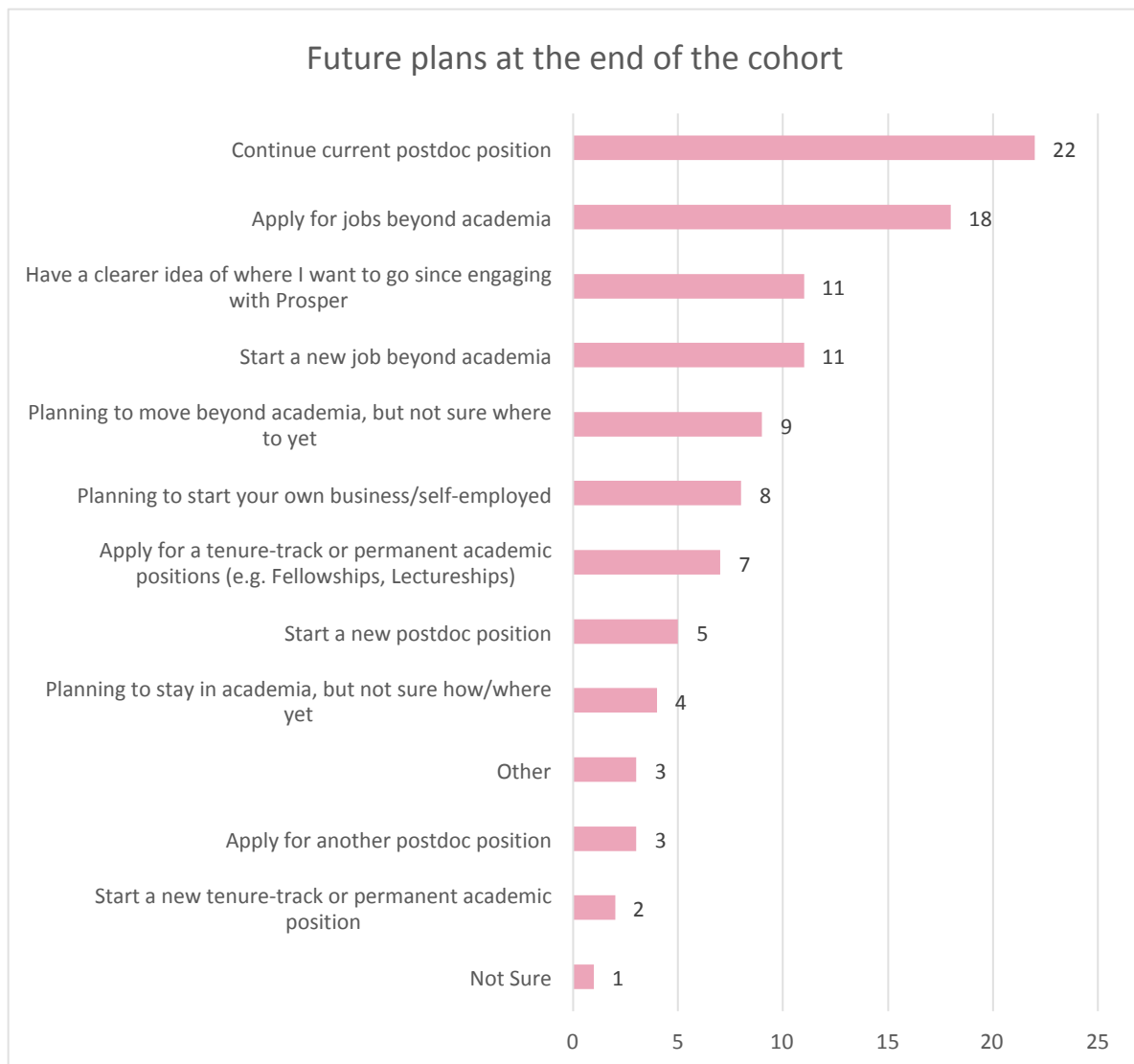


FIGURE 7: FUTURE PLANS AT THE END OF COHORT

While 11 participants developed clarity about their preferred futures, one participant identified that they are not sure about their future plan. Here it also important to note that eight participants are planning to start their own businesses and three have identified other future plans. The fact that a substantial number (22) of cohort members are planning to continue with their current postdoctoral position is not surprising given the stage at which this question was asked. Many will still be developing and pursuing alternative career goals over a longer timeframe. We will

continue to track their career destinations beyond the time they spent as members of the first cohort.

E.1.c.v Those who are starting their own businesses

The end of cohort survey revealed that postdocs from the arts, humanities and social sciences did not report applying for jobs beyond academia over the course of the pilot. This was not, however, due to an absence of any ambitions to pursue careers beyond academia. For instance one participant reported the intention to develop a freelance career with skills they had accrued during their time with Prosper:

“The contract I was on at the beginning of Prosper opened up opportunities to develop skills in web design. As a result, I built an online exhibition for that project... As a result of this I was recommended to colleagues and am now working part-time on another web design project and I have been asked if I would like to be involved in a further web design project beyond this - for which I plan to set-up a consultancy so that I can undertake that work freelance alongside my postdoc/employed research activities. Being involved in Prosper at the same time as these opportunities have arisen has given me more confidence in and awareness of my own skill set and the options for using those on a freelance basis.”

Five additional participants reported similar intentions to develop consultancy businesses of their own as they conclude their current respective postdoc contracts. For instance, one participant reported:

“I’m still developing my business concept and will take time after the end of my contract to work on this before starting the business”

The following pieces of qualitative feedback illustrate some additional future plans reported by other members of the pilot:

“[I intend to] continue part-time project management and gain experience in this field.”

“I am hoping to progress in the medical affairs space, maybe even do an MBA.”

“I have two years remaining on my current contract. Prosper has definitely broadened my horizons but, being new to academia and recently ex-business, I am still considering the possibilities both of continuing in academia (in whatever role suggests itself) and moving sideways into a research/commercial role – The Law Commission is an organisation of particular interest.”

This section has demonstrated that the observations made in terms of engagement with Prosper, in concert with the observed positive changes in terms of confidence to actively pursue personal career development, along with widening perceptions with

regard to postdoctoral careers beyond academia, have together led to participants taking charge of their career trajectories. This is reflected in how the members of the first cohort are engaging with employers, applying for jobs, receiving job offers and planning their futures.

E.2 Resources and Prosper Experience Findings

E.2.a Engagement with Prosper

In total, participants reported spending an average of nearly 100 hours on Prosper-related activities (of the estimated 150.5 possible hours) over the course of the pilot. In addition to number of hours spent in total, participants were also asked about their respective patterns of engagement. Figure 8 demonstrates that, over time, participants experimented with different patterns of time-management and that a majority of the participants were engaging with Prosper flexibly alongside their other commitments such as postdoctoral research work.

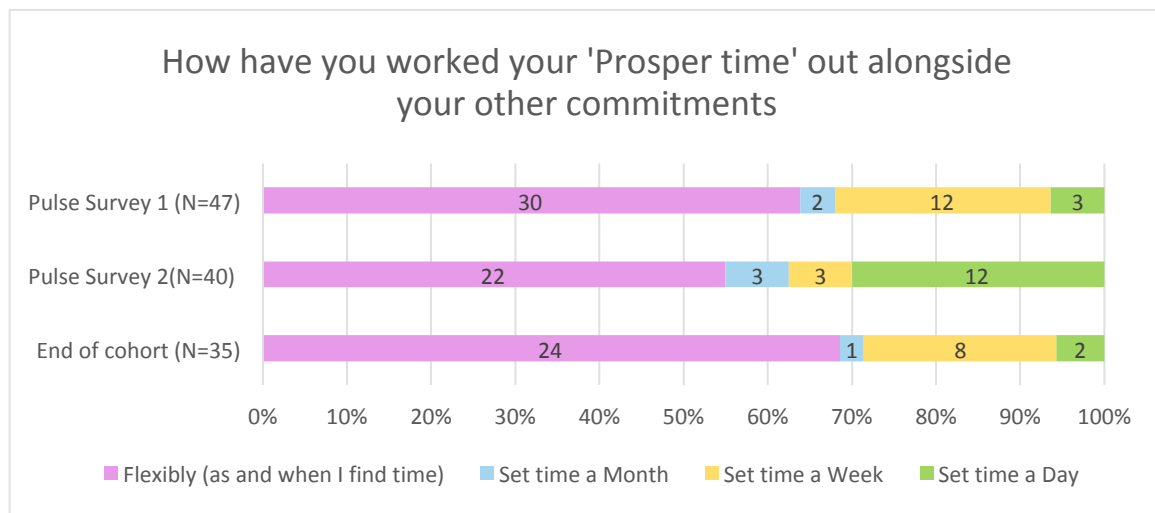


FIGURE 8: TIME MANAGEMENT

Time management is one of the most shared concerns for postdocs. The end of cohort survey asked participants to share barriers to engagement. The following word-cloud (Figure 9) is a visual representation of the responses.

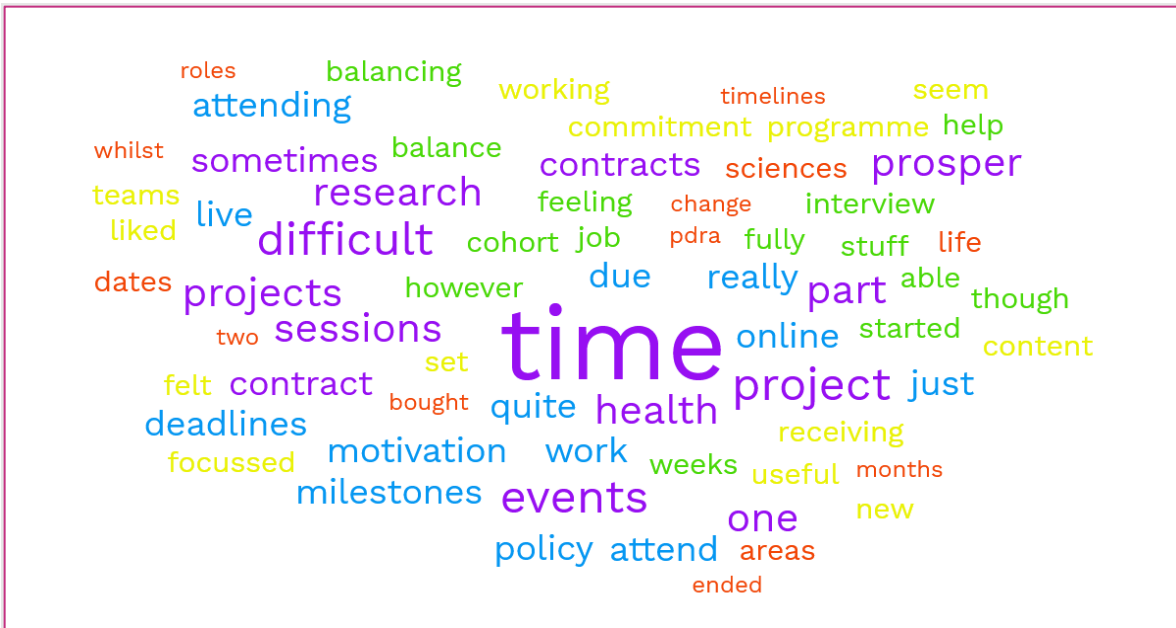


FIGURE 9: BARRIERS TO ENGAGEMENT

There were a total of 29 responses regarding barriers to engagement. Some responses identified multiple factors (for example, sickness and workload). Time constraints was the barrier with the most mentions (15) followed by others such as workload (9 mentions), contracts (6 mentions), research (4 mentions) and health concerns (4 mentions). The following pieces of qualitative feedback present a glimpse into the different challenges related to managing time experienced by members of the cohort as they engaged with Prosper:

“The constant challenge throughout was time commitment. When I began Prosper my contract was only up to December 2021, but in part due to Prosper activities I was able to secure 2 further contracts (based in research, but one focussed on policy impact and another on impacts in health, arts and local policy). This success in gaining new contracts, in many ways building on skills gained through Prosper, then meant that I had a larger set of demands on my time.”

“Whilst I had the time bought out by Prosper with my contracts, the timelines in the projects didn't change so it was also difficult to balance this sometimes. About 9 months into Prosper my contract ended and I started two PDRA roles part time. I found that my live engagement with Prosper dropped at this point as it was difficult to arrange my time to be available at the events. I did manage to join in via the online resources, but again this was difficult to keep up and I have a number of videos to watch! I was able to use my Prosper time for interview preparation and setting aside time to take part in statistics courses as well.”

In response to the concerns regarding time-management shared by members of the first cohort, the project team has incorporated sessions into the second cohort to help participants manage their time more effectively.

Figure 10 illustrates how at the end of the cohort a majority of participants (22 out of 35) reported that they were able to successfully balance their research project with Prosper.

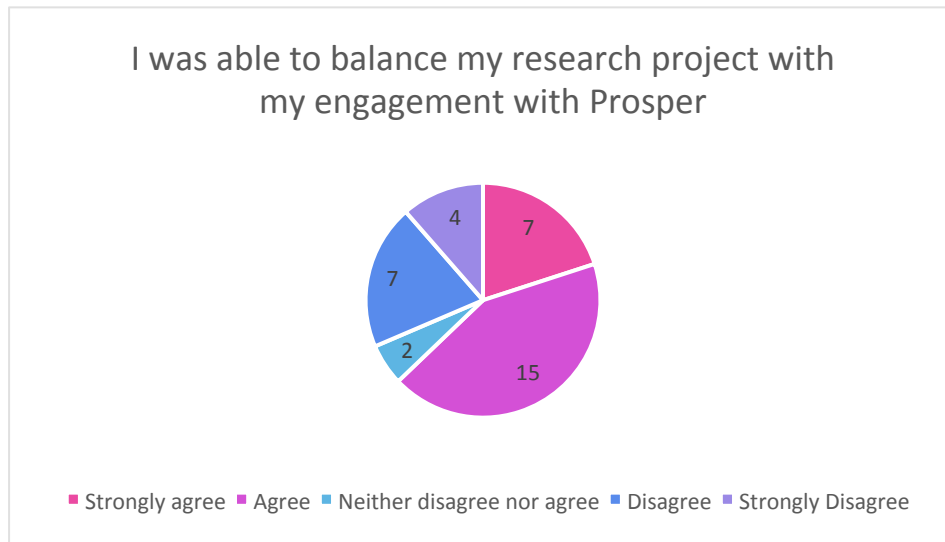


FIGURE 10: BALANCING RESEARCH WITH ENGAGEMENT WITH PROSPER

Apart from variation in periodic management of time dedicated to Prosper, the survey at the end of the first cohort also enquired about postdocs’ overall pattern of engagement. Figure 11 demonstrates that the engagement by cohort members varied across the year. While a majority of the participants reported that they had fluctuating levels of engagement across the year, a significant proportion of participants reported that their level of engagement peaked at the beginning of the cohort.

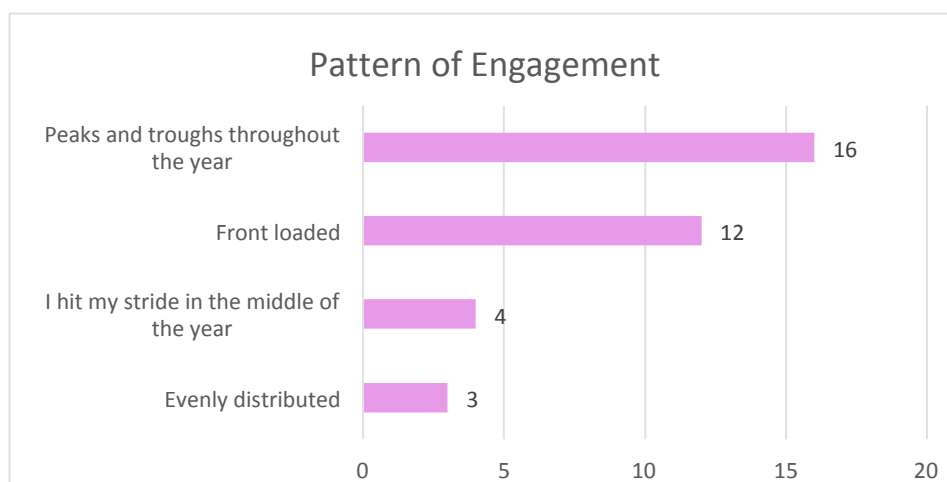


FIGURE 11: PATTERN OF ENGAGEMENT ACROSS THE COHORT

Variations in engagement patterns typically stemmed from a combination of demands from other commitments and responsibilities, along with individual interests and requirements relating to different aspects of the Prosper offering. This will be explored further in the next section.

E.2.b Feedback on specific kinds of activities within Prosper

This section briefly illustrates the postdocs’ engagement with the different activities and resources provided within the overall framework of Prosper. The participants were asked to roughly estimate the proportion of time they devoted to different activities as a percentage of the total time they spent with Prosper. Figure 12 illustrates the relative proportion of time the participants reported devoting to different activities within Prosper. It demonstrates that large proportions of time were spent on group coaching sessions, self-paced exploration of the resources available on the Prosper portal, attending synchronous or live and recorded sessions, and individual coaching sessions. The participants spent relatively smaller proportions of time on journaling, providing feedback and other activities.

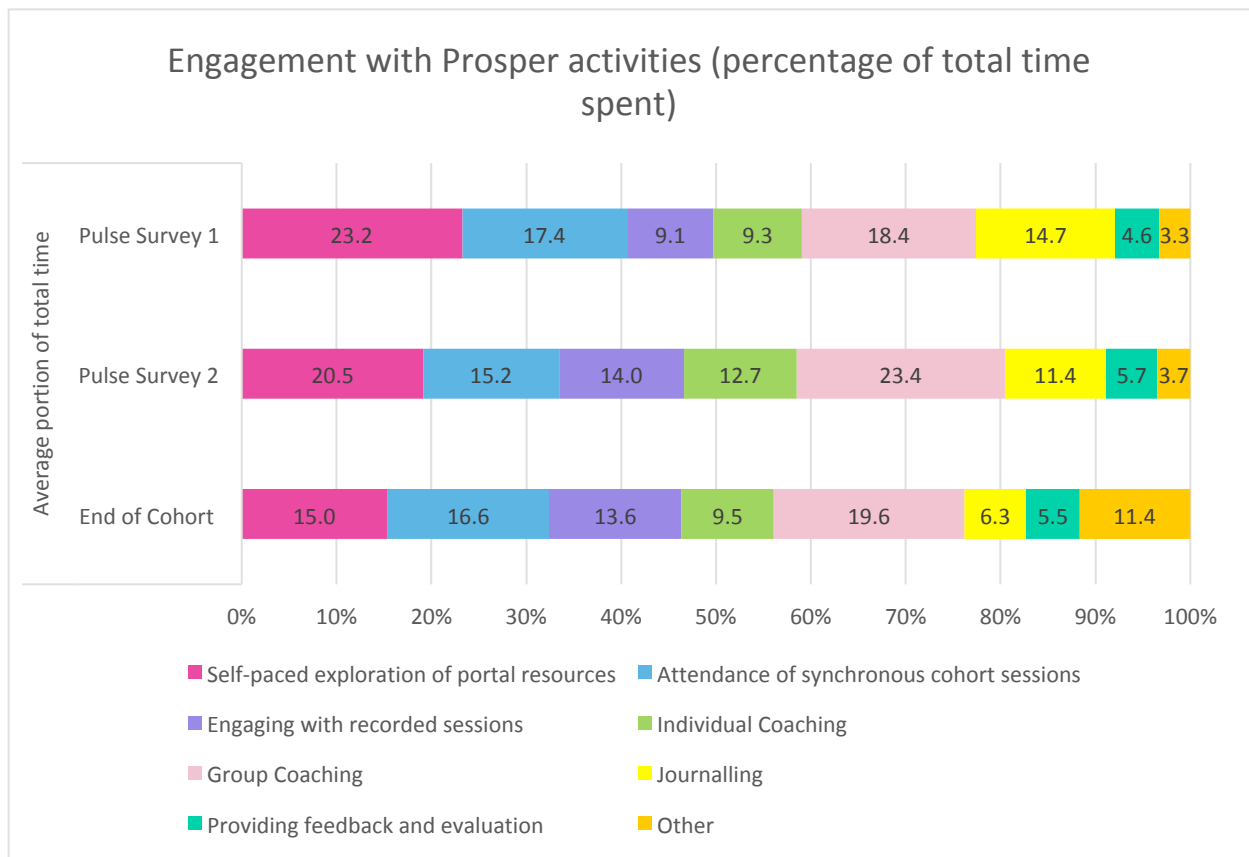


FIGURE 12: PROPORTION OF TIME SPENT ON DIFFERENT ACTIVITIES

Figure 12 illustrates certain patterns across the first two pulse surveys and the end of the cohort. Pulse surveys 1 and 2 show a higher proportion of time spent on self-paced exploration of portal resources and journaling, whereas the end of cohort survey shows a gradual growth in the proportion of time spent on other activities. The engagement with recorded sessions and coaching sessions peaked during the

second pulse survey, which coincides with the point at which the cohort was introduced to the explore part of Prosper, the career clusters, and resources regarding engagement with employers.

The pulse surveys and the end of cohort surveys also collected feedback on each activity and the different on-demand live and recorded sessions, with feedback captured on a Likert scale of 1 to indicate very poor and 5 to indicate very good. Table 2 lists the top five Prosper activities which were most appreciated by the cohort. Group and individual coaching emerged as the most appreciated aspects of Prosper for the first cohort. Figure 12 additionally demonstrates that almost a quarter of the total time engaging with Prosper was spent on a combination of individual and group coaching sessions. The resources shared through the Prosper portal were also widely appreciated by the cohort. The second largest proportion of time (see Figure 12) was spent on exploring the resources available on the portal.

TABLE 2 TOP FIVE PROSPER ACTIVITIES APPRECIATED BY COHORT AND MEAN SCORE

Rank	Pulse survey 1 (out of 8 activities)	Pulse survey 2 (out of 16 activities)	End of cohort (out of 36 activities)
1	Individual coaching [46 postdocs] (4.78)	Group coaching [40 postdocs] (4.90)	Group coaching [35 postdocs] (4.91)
2	Group coaching [47 postdocs] (4.70)	Individual coaching [40 postdocs] (4.85)	Individual coaching [35 postdocs] (4.88)
3	Living CV [38 postdocs] (4.52) *	Introduction to Leadership [23 postdocs] (4.56) *	Negotiation and influencing skills [15 postdocs] (4.8)
4	getting started with LinkedIn [22 postdocs] (4.39)	Prosper portal resources [40 postdocs] (4.45)	Entrepreneurial Mindset [16 postdocs] (4.75)
5	Welcome drop-in session [34 postdocs] (4.32)	Introduction to Networking [22 postdocs] (4.36)	Fireside Chat with Susan Wallace, Wellcome Genome Campus [7 postdocs] (4.71)

* On-demand live and recorded sessions with external resource persons

The activities which showed consistent popularity among the cohort such as coaching and the resources available on the portal also showed a growth in popularity across the cohort as the year progressed. It is also important to note that activities such as building confidence, leadership and career cluster resources were developed in the latter half of the cohort and were introduced to the postdocs at different points of time.

The following pieces of feedback present a glimpse into the appreciation shared by cohort members for the coaching and other resources available through Prosper:

“I found it easy to engage with the coaching and the coach kept me on track and motivated. This lack of structure for engaging with career clusters was too self-driven for me. Much of the coaching was aimed at the reflective and journaling processes which I found really useful.”

“It was useful and interesting to listen and take part in the fire side chats - it gave an insight in peoples different career paths and their companies. It was extremely useful and helped to see there was no straight line to get to where you want to go.”

“My coach, meeting the prosper team over coffee, my buddying group, and my colleagues.”

“I only realised how useful some events would be after they were finished. Having them on demand allowed me to go back to them regularly to learn more.”

“Absolutely my coach - my sessions with her[anonymised] individually and as a group were the core activities that kept me anchored and focussed throughout Prosper. Without that element I think I could've easily drifted away from the process.”

“The CV and LinkedIn profile are key for moving forward and applying for jobs outside of academia. The new contract may have postponed the search for a bit, but I'm planning to put what I've learned from Prosper into practice in the future.”

“Other cohort members, in helping me realise how many other postdocs had similar career problems as myself. The process itself also kept me motivated as it gave me time to actively investigate careers outside of academia, and to see how what characteristics employers look for. Once I started pursuing this, I was motivated further to fill skill gaps for jobs I might be interested in, and research further how best to apply for these jobs and market myself.”

“The Prosper team (having the teams channel and regular emails was great for that). The group and individual coaching sessions. The buddy sessions (I only attended one, but more of those would have been good throughout)”

On the other hand, there were a few cohort members who felt that there were areas with room for improvement. Participants shared the following feedback:

“The Career Cluster/Fireside chat aspects did not seem to be targeted at all sectors equally, so I was not interested in them and lost enthusiasm for engaging.”

“Fireside chats - none were with people that seemed relevant to my potential career paths of interest, so I didn't make time to attend. Career Cluster Resources - those most relevant to me (Govt & Non-Profit; Health & Care)

were good as far as they went, but that wasn't very far. Some other clusters seemed to have much more content. I think I'd have found those really useful if those relevant to me had been more developed."

"I have to confess that soon after the opening months of the Prosper programme the journaling aspect felt burdensome (being a request for daily reflection) and yet didn't seem to feed into any of the other activities."

"As the pilot has gone on - more events with external experts seem to have been focussed on/drawing from the sciences rather than the arts/humanities and so have not felt as relevant to pathways I would be able to take in my career."

"Time, and to some extent a lack of relevant content for my specific areas of interest. The general, stuff that was applicable across disciplines was all good, but the discipline-specific content in the programme seemed quite focussed on the life and physical sciences, at the expense of social and non-clinical health sciences. I'd have really appreciated more on policy/government/non-profit/public sector careers."

However, in the second set of focus groups - conducted with a diverse sample of the cohort in March 2022 - prompted the following responses to career cluster resources:

"I think the fireside chat things, I like the format. You guys always come armed with great load of questions to keep it going, really relevant questions. . . I think I have seen one panel which I thought has worked well as well. I mean it was quite a broad range of people and interesting. Again, it's going to be hard to cover everyone's interest. You are going to have to do a few of them with a lot of very different people before everyone is happy with that. I do think those formats work quite well."

The participants of the focus group acknowledged that these employer panels were "a kind of a taster" to "spark an interest" in different sectors and career paths. One participant added:

"I think it was good because they could talk and prompt each other to talk about certain things. I think that was helpful. But, yeah, I think a mixture of the fireside chats works well, that's just easier to really ask specific questions, also more when there is just one person there to talk to."

These contrary remarks by cohort members regarding journaling and fireside chats demonstrate the challenge of catering to a wide variety of postdocs across disciplines, with a diverse combination of personal interests and career development goals. Different kinds of activities will naturally have different degrees of relevance to postdocs in differing circumstances. It is also worth noting that many resources were co-created in parallel with running Cohort 1, and that therefore there were areas of

content less well developed than others at earlier stages of the pilot’s progression. We will continue to expand resources as we run the second cohort and prepare for the final roll-out. However, Prosper as a whole was able to address this variety of interests and career development goals in a satisfactory manner. This is visible in the last section of this report which presents the feedback shared by the members of the first cohort.

E.2.c Feedback on Prosper experience

This section examines how the cohort evaluated their experience of Prosper. Feedback to Prosper was sought during both the pulse surveys and when the cohort members concluded their engagement with Prosper. The cohort members were asked to share their feedback through Likert-scale ratings. Figure13 demonstrates that from the pulse survey through to the conclusion of participants’ respective engagements with Prosper, there was a periodic improvement in the overall experience, satisfaction of expectations, and positive recommendations reported by cohort members.

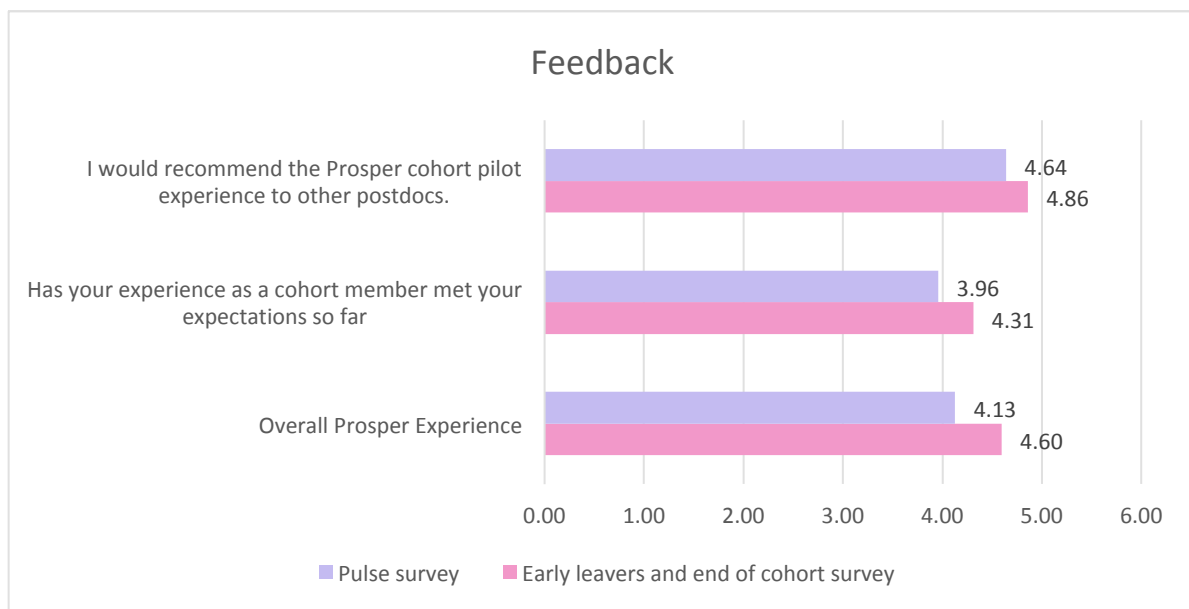


FIGURE 13: FEEDBACK

It is also important to note that almost all participants shared positive feedback about Prosper. This is explored further in appendix 3.

As one participant expressed it, *“going through the various activities helped me define my career development goal and gave me some insights and tools in order to achieve that.”*

The following are some more excerpts of feedback shared by members of the first cohort:

“I have really enjoyed engaging with Prosper. I have learnt so much about myself, potential career pathways beyond academia and the skills and tools needed to pursue these. In many ways Prosper exceeded my expectations and it was great to feel part of a community of postdocs (which I didn't before) and to see that challenges and anxieties were often shared across the board and were not personal flaws.”

“Other cohort members, coach, Prosper team. All of the above helped keep me motivated. Having people to talk to who were going through the same process and problems was immensely useful. seeing their successes both gave you hope and made you not want to be left behind! Coaching offered positivity, ideas and a safe space to reflect/plan/deal with whatever was happening. Prosper team are great, helpful and you really feel they are engaged in developing a really useful resource and delight in our successes.”

Over consecutive surveys, the positive feedback was equally spread across genders and across disciplines. This is explored in more detail in Appendix 4.

One participant, at the end of the cohort survey, shared that their experience did not meet their expectations:

“I found the reflective processes very good however the second one in engaging with clusters a bit too unstructured and too self-driven. I would have liked a few key dates that you have to intend to keep myself in check and gauge where others are up to in this phase. Perhaps mixing of the coaching circle. I had an expectation that this could have taken place with employers involved in submitted career clusters.”

The participants were also asked to list out three words which described their experience of Prosper at the end of their engagement with the first cohort. Figure 14 presents this in the form of a word cloud.



FIGURE 14: THREE WORDS TO DESCRIBE THE PROSPER EXPERIENCE

Prominent words such as “confidence-building” and “insightful” reflect the changes reported in terms of confidence (see E.1.a) and widening of perceptions (see E.1.b) respectively. Taking this positive feedback (such as motivating, engaging, empowering and positive) into account, the following section explores the positive feedback in terms of recommendations. Appendix 5 further illustrates how the positive experiences of the first cohort has motivated postdocs (across genders, disciplines and ethnicities) to recommend Prosper to others.

One of the participants who left early to start a new job beyond academia stated:

“At the time of joining the prosper cohort I had been postdoc’ing for over 10 years and I was unsure about how I wanted to proceed with my career. I was becoming disillusioned in the career development avenues that academia was presenting me, yet academia was the only path that I had trodden and the transition away from it seemed like a daunting prospect that I was unskilled for. Before joining Prosper I had been offered little support in exploring career paths outside of this academic bubble. I joined the Prosper pilot to obtain a clearer understanding of the career opportunities available to me outside of academia and to provide a tool for motivating my career development.”

Other participants shared similar feedback, which can be observed in the following excerpts:

“I’ve been a postdoc for many years and I’ve known for a long time that an academic career wasn’t for me, but struggled with the confidence to change career. What would I be any good at outside a lab?? Will anyone want me and my scientific skillset? I joined the Prosper cohort in the hope that it would give me some confidence to finally take that first step toward a new career. And I

would say it has far exceeded my expectations. It has helped me identify my strengths and weaknesses, career drivers and motivations and identify the transferrable skills I have that would be useful in a life beyond academia. Coaching sessions provided a safe space to talk through worries, receive advice and encouragement. The numerous Prosper resources have helped me hone my CV writing skills, develop a strong LinkedIn profile, opened my eyes to a broad range of opportunities and given me the confidence and tools to pursue them. **This has been such a worthwhile process and I would encourage any Postdoc too.**”

“I think Prosper is a fantastic start at addressing the fact that post-docs “fall between the cracks” when career planning or development is mentioned. This is particularly relevant when considering plans for outside academia, as this is the first programme I have seen that starts to answer the question “but what if I don’t want to be a Lecturer..?”

“I have found the Prosper pilot very useful in my career journey. I feel that this should be an ongoing part of the post doc journey rather than being only one year in duration as I have really benefitted from being part of a community and meeting every two weeks (at the start) and then every month (towards the end) with other post docs and my career coach. I will miss these sessions now that Prosper has come to an end. If there was an option to continue (without the funding as I know this needs to go to the new intake) then I would definitely do this and would welcome the possibility of continuing on with this journey.”

“I am infinitely grateful for having been selected to be part of this pilot cohort. I feel like every postdoc deserve such support because the value added is immense for the individuals but also the institution and the society if we can have more postdocs confident about their potential both in academia and beyond, they can really achieve their high potential.”

This section demonstrates that the first cohort through which Prosper was tested within the University of Liverpool was received positively by a representative and diverse group of postdocs across disciplines and gender. The success of the first cohort in terms of positive feedback is based on an observed cohort-wide change in confidence and perceptions in favour of career development and opportunities beyond academia, along with tangible evidence of postdocs engaging with employers and applying for jobs beyond academia.

F. Limitations

One limitation of this report is that although the cohort members reflect the demographic diversity of postdocs at the University of Liverpool², the number of

²<https://prosper.liverpool.ac.uk/blog/prosper-career-development-pilot-ensuring-a-diverse-cohort/>

participants with particular intersectional and diverse identities are not large enough to qualify for statistical analysis. This might be alleviated at a later stage when this data is combined with data gathered from the second cohort, which has a larger number of participants.

The cohort recruited for Prosper is representative of the gender, ethnic and disciplinary diversity observed within the postdoc community in UK. These identities are recognised as significant factors of inequality in terms to access to education, higher education and career opportunities in UK. Several studies (such as Cardel at al. 2020; Yadav et al. 2020; Cantwell and Lee 2010) illustrate how these factors contribute to unequal educational and work-place experiences, outcomes and promotions. The Prosper team felt conflicted about asking leading questions to the cohort members about this sensitive issue, and decided to address any issues relating to these questions if and when they were raised by the cohort. However, this was not discussed as a challenging factor by any of the participants of the surveys and focus groups. Therefore, this report does not address these concerns.

G. Conclusion

This report illustrates that Prosper has had an undeniable and significant impact on the lives of the postdocs who were part of the first cohort – evidenced by the data collected during the first Prosper pilot at the University of Liverpool. It was observed that members of the first cohort spent nearly a hundred hours on average engaging with Prosper, and were particularly appreciative of the coaching sessions, the resources provided through the portal, and the peer community of postdocs that Prosper provided. The overall experience led to very impressive statistical improvements in regard to participants' confidence in their abilities relating to the identification of career development resources, the process of applying for jobs, and self-direction of career development. This impressive improvement in confidence was accompanied by a positive shift in perceptions regarding careers and opportunities beyond academia. These findings are underlined by the tangible evidence of the impact these changes had on the number of postdocs who applied for jobs, secured new roles, and developed alternative career development plans beyond academia. Finally, this report illustrates the broad positivity with which participants regarded their Prosper experience at the end of their engagement, along with their willingness to recommend it to other postdocs.

The Prosper approach is being piloted with a second larger cohort of 75 postdocs across Lancaster University, the University of Liverpool and the University of Manchester. The findings from Cohort 1 have been used to refine and evolve our offering for Cohort 2. The follow-up with the first cohort will explore in greater depth outcomes such as the type of jobs that the cohort are applying to, as well as any subsequent developments in terms of job offers and future professional plans. In the second cohort, the second pulse survey and the end of cohort survey will enquire about engagement with employers, informational interviews and job applications. The combination of data and findings presented in this report along with data which

at present is being collected from the members of the second cohort, will provide a richer, larger set of data, allowing for the measurement of the impact of Prosper across different universities.

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I. Appendices

These appendices provide further details of the qualitative data breakdowns expanding on content in the main report.

Appendix 1: changes and components of confidence derived through factor analysis

This appendix explains the analysis which contributed to the development of the findings presented in figure 2. As many of the 18 variables regarding confidence are closely linked to each other. We undertook a factor analysis to identify variables which change together and are likely reflect an underlying factor (Hadi, Abdullaah and Sentosa 2016, Pallant 2003). This analysis produced a very clear set of underlying Factors:

Components of Confidence	One-way ANOVA significance	Constituent variables (statements to which participants responded)
1_Self Reflection and Career Development	0.001	Identify my strengths
		Identify my weaknesses
		Identify my motivations and interests
		Identify my professional development needs
		Identify the skills I need to develop in order to successfully move to my preferred career path
		Achieve my career aspirations
2_Discuss with PI	0.282 (not significant)	Discuss my career development with my PI
		Discuss potential careers beyond academia with my PI
3_Identify Opportunities Beyond Academia	0.001	Identify where I need to go to find CDO/R relevant to me
		Identify suitable careers for me beyond academia
		Be aware of what attributes employers beyond academia look for from postdocs
4_Develop Job Applications	0.001	Translate my work experience into skills that employers beyond academia value
		Prepare a job application for a post beyond academia
		Effectively communicate my skills to employers beyond academia in an interview
		Apply for jobs beyond academia
5_Transforming Skills	0.001	Be proactive in developing transferrable skills
		Set career development goals
		Seek advice from professionals already working in my preferred career sector

Each person was scored pre- and post- test on these factors. We used a method that set the average score for the pre-test as zero with scores above being positive and below negative (Anderson-Rubin 1957, Pallant 2003). With this method scores of +1 of standard deviation or above indicate likely statistically important improvements. We also checked if the improvements were statistically significant. The improvement in confidence across these five components in terms of standard deviations of change (from the entry survey to the exit surveys) is presented in figure 2 in the main report.

Appendix 2: Change in Perceptions:

In the following set of figures (15, 16 and 17), the pink sections indicate the variety of responses at the time of entry and the blue sections represent the responses at the end of their engagement with Prosper. In figure 9 the blue sections grow upwards indicating that over time, larger proportions of cohort members (from 18.9 and 39.6 to 28.6 and 45.2 percent) are in greater agreement with the statement that they aspire to work beyond academia. In figure 15 we can also observe that at the end of their engagement with Prosper, none of the participants disagree with aspirations to work beyond academia.

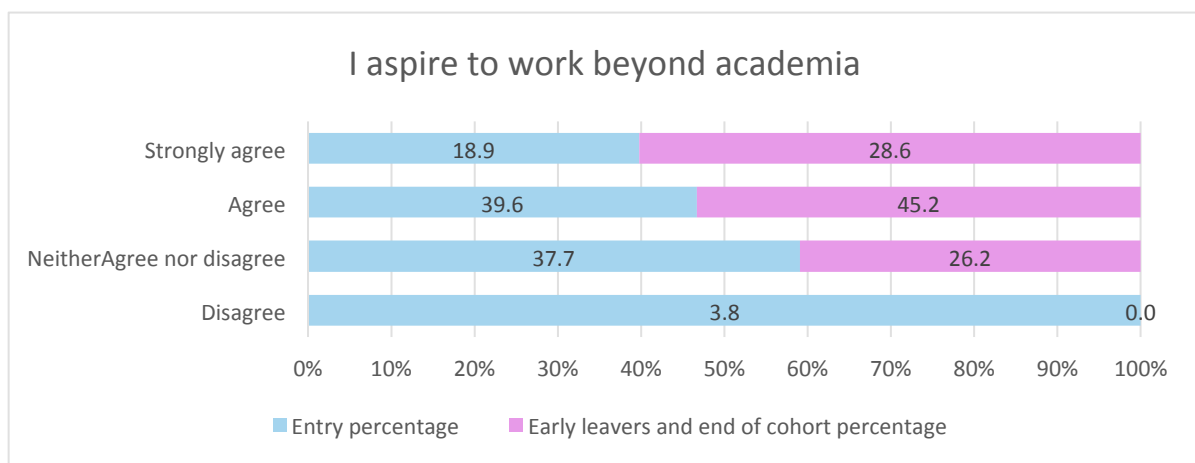


FIGURE 15: CHANGE IN ASPIRATIONS TO WORK BEYOND ACADEMIA

Similarly, figure 15 shows that at the end of their engagement more respondents (from 11.3 and 47.2 to 23.8 and 40.5 percent) are in greater agreement with expectations to eventually work beyond academia and fewer participants (from 5.7 to 4.8 percent) disagree about ending up working beyond academia.

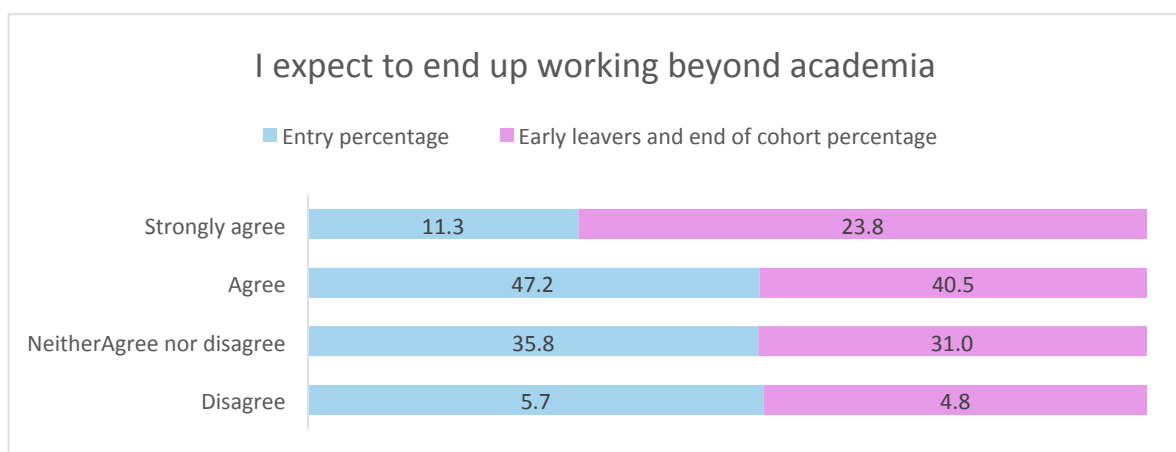


FIGURE 16: CHANGE IN EXPECTATIONS REGARDING WORKING BEYOND ACADEMIA

Apart from aspirations and expectations, imagination is a significant aspect of perception. Figure 17 shows that there is a significant decrease (from 5.7 to 2.4

percent) in the proportion of participants who cannot imagine working beyond academia and an increasing proportion of participants (from 30.2 and 60.4 to 42.9 and 45.2 percent) who strongly agree that that they can imagine themselves working beyond academia.

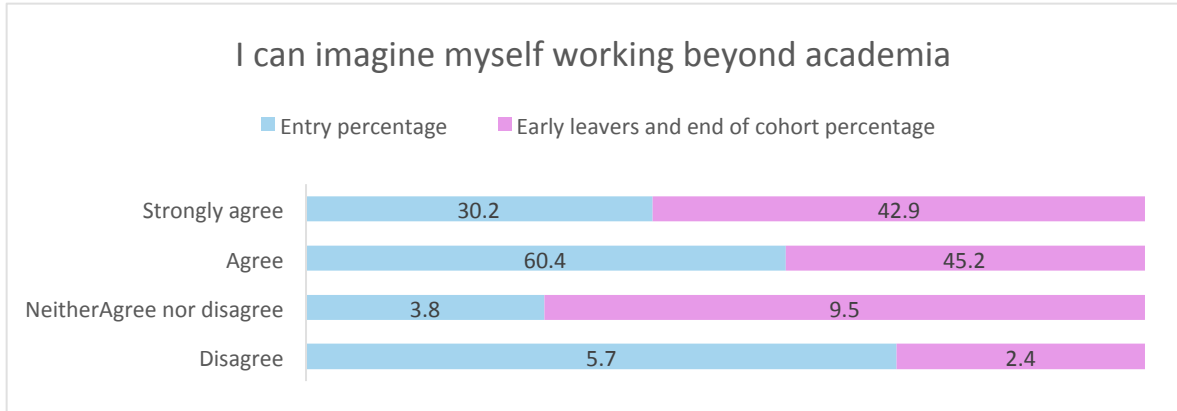


FIGURE 17: CHANGE IN IMAGINATIONS OF WORKING BEYOND ACADEMIA

Appendix 3: Prosper Experiences

The following graph (figure 18) illustrates the cohort’s feedback on the overall Prosper experience in consecutive pulse survey and end of cohort or early leavers survey. The graph demonstrates that the majority of the feedback is “good” and “very good” on a five-point Likert scale, and the intensity of positive reviews by the cohort increases with time as the bars (in pink) grow with more positive response.

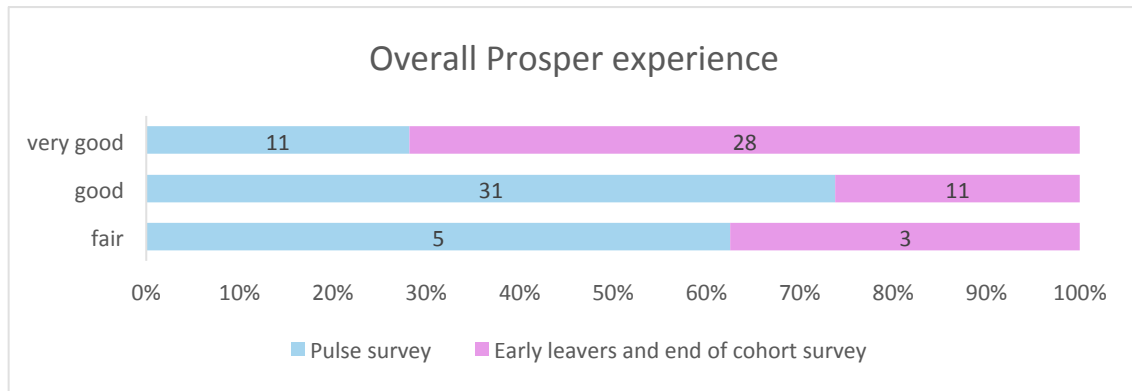


FIGURE 18: OVERALL PROSPER EXPERIENCE

The following figures (19 and 20) illustrates that, over consecutive surveys, this feedback is equally spread across genders and across disciplines.

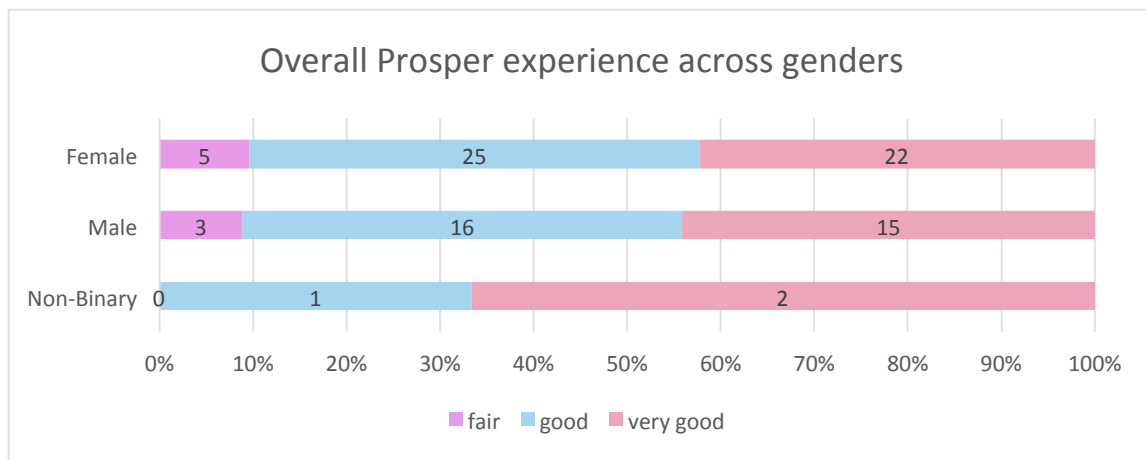


FIGURE 19: OVERALL PROSPER EXPERIENCE ACROSS GENDERS

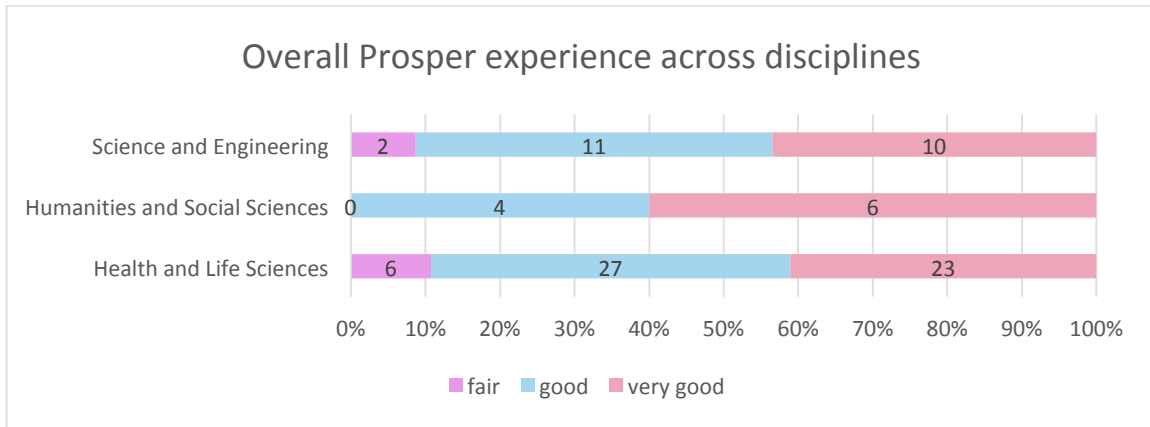


FIGURE 20: OVERALL PROSPER EXPERIENCE ACROSS DISCIPLINES

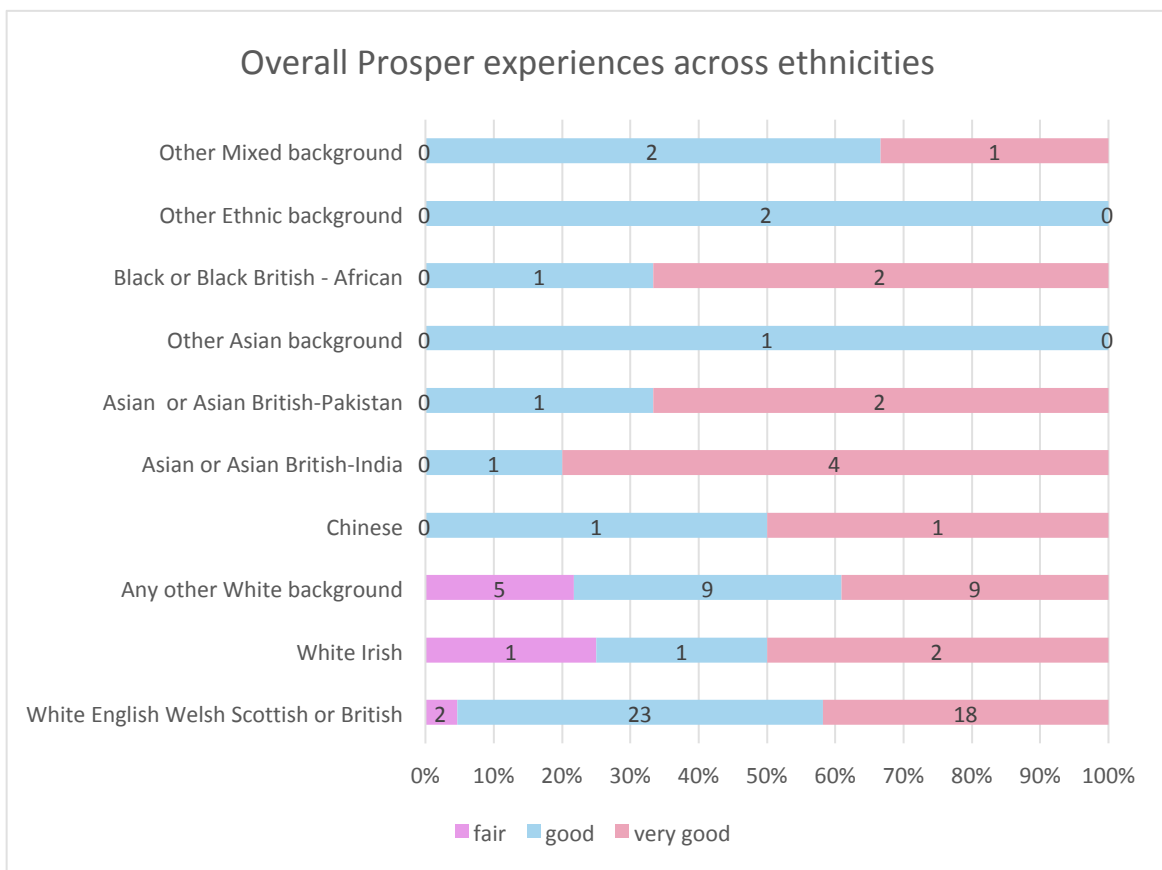


FIGURE 21: OVERALL PROSPER EXPERIENCES ACROSS ETHNICITIES

However, Figure 21 demonstrates that positive feedback (good and very good) is universal among most ethnicities which are often clubbed together under the acronym BAME (Black Asian and Minority Ethnic) category, there are a few participants among the White Irish, White British and other White ethnicities who provide a more ambivalent “fair” feedback.

Appendix 4: Prosper meeting expectations

Figure 22 illustrates the overall positive feedback reported by the cohort in terms of meeting expectations.

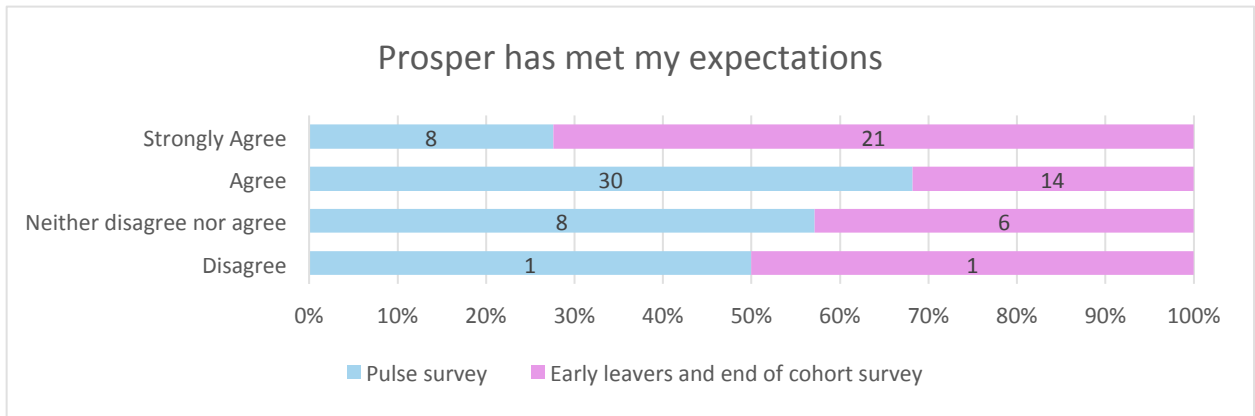


FIGURE 22: PROSPER MEETING EXPECTATIONS

The following figures (23 and 24) illustrates that, over consecutive surveys, positive feedback is equally spread across genders and across disciplines.

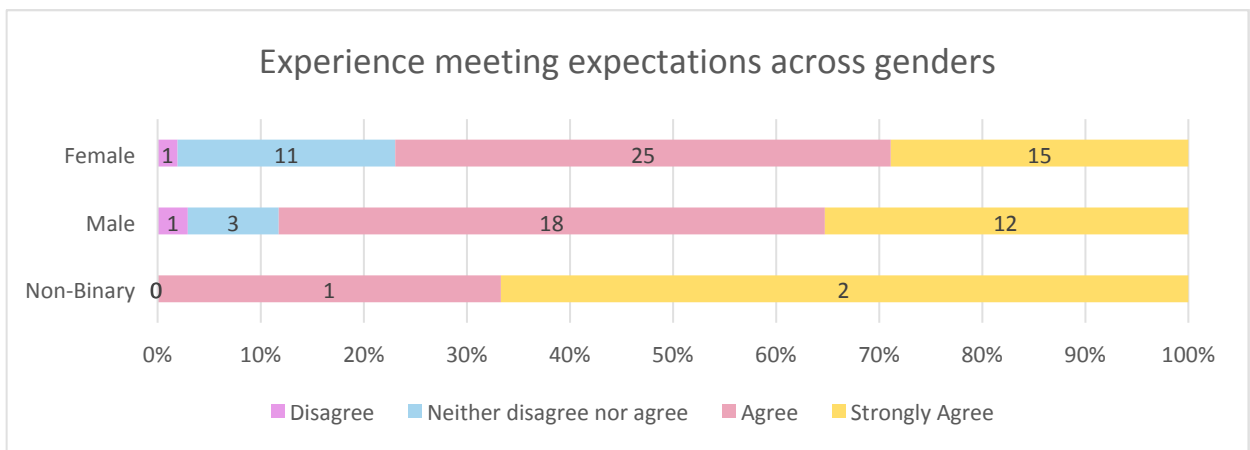


FIGURE 23: EXPERIENCE MEETING EXPECTATIONS ACROSS GENDERS

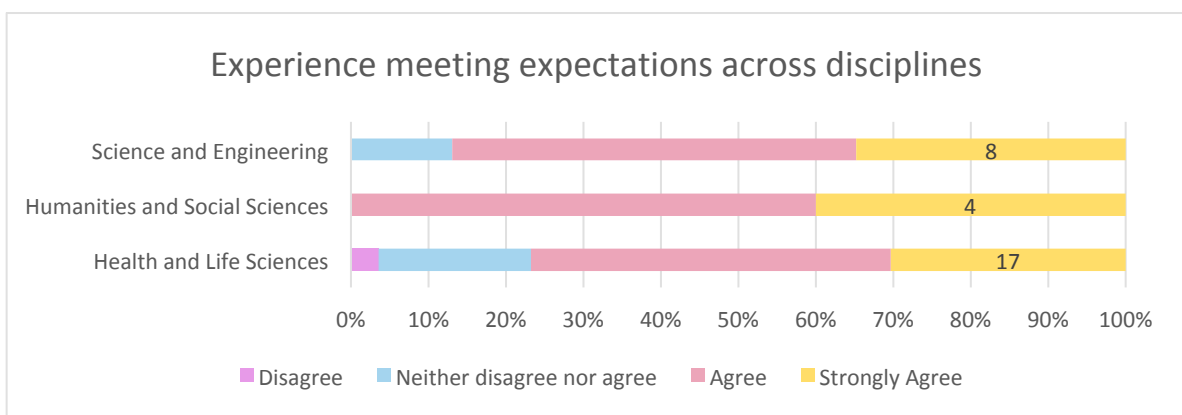


FIGURE 24: EXPERIENCE MEETING EXPECTATIONS ACROSS DISCIPLINES

On other hand, in terms of ethnicity, figure 25 demonstrates that one participant each from White British and Other White identity report that the Prosper experience has not met their expectations. This figure provides, to a certain extent the explanation for the disparity across ethnicities in terms of overall experience. Figure 25 suggests that a larger proportion of participants from different white ethnicities have greater expectations from Prosper than those included within the BAME ethnicities.

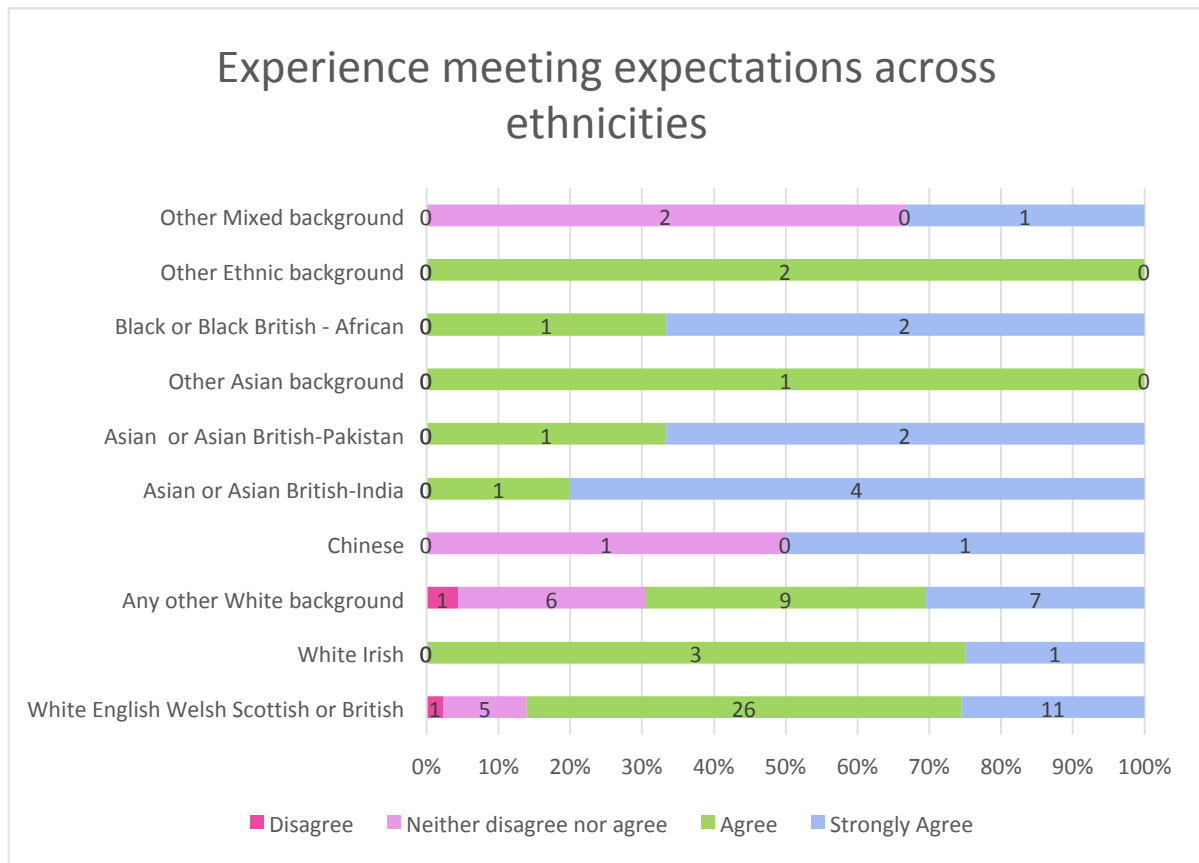


FIGURE 25: EXPERIENCE MEETING EXPECTATIONS ACROSS ETHNICITIES

Appendix 5: Recommendations in favour of Prosper

Figure 26 demonstrates that the intensity of positive recommendations from the cohort increases with time as a larger proportion of respondents strongly agree to recommend Prosper to other postdocs. This is followed by figures 27, 28 and 29 which demonstrate that this positive response is almost uniformly distributed across genders, disciplines and ethnicities.

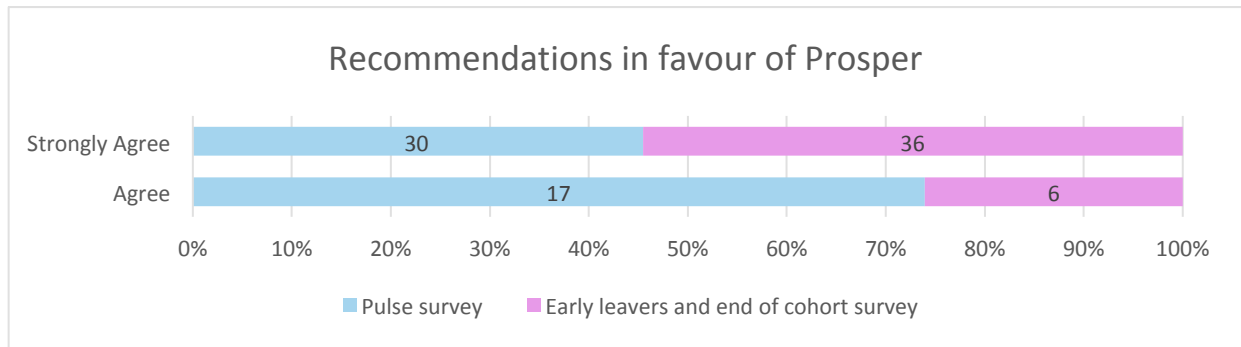


FIGURE 26: RECOMMENDATIONS IN FAVOUR OF PROSPER

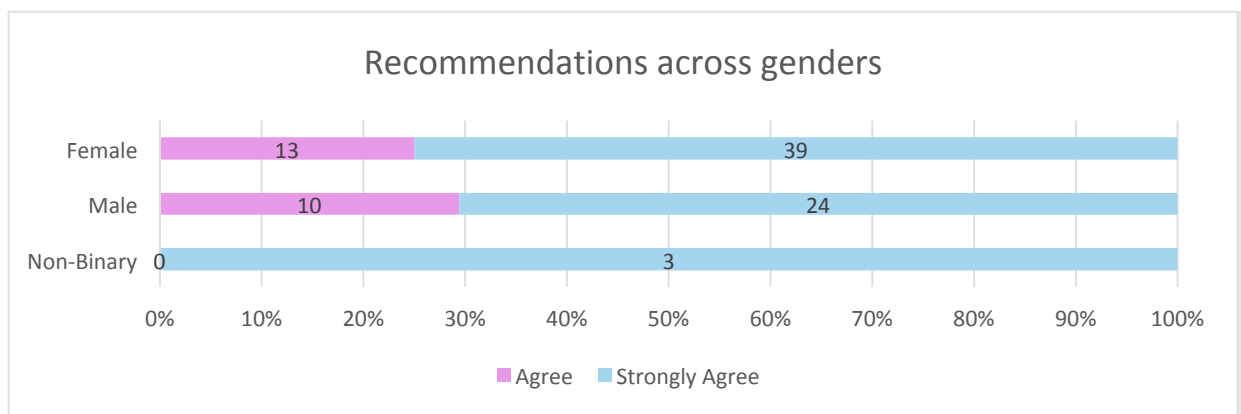


FIGURE 27: RECOMMENDATIONS IN FAVOUR OF PROSPER ACROSS GENDERS

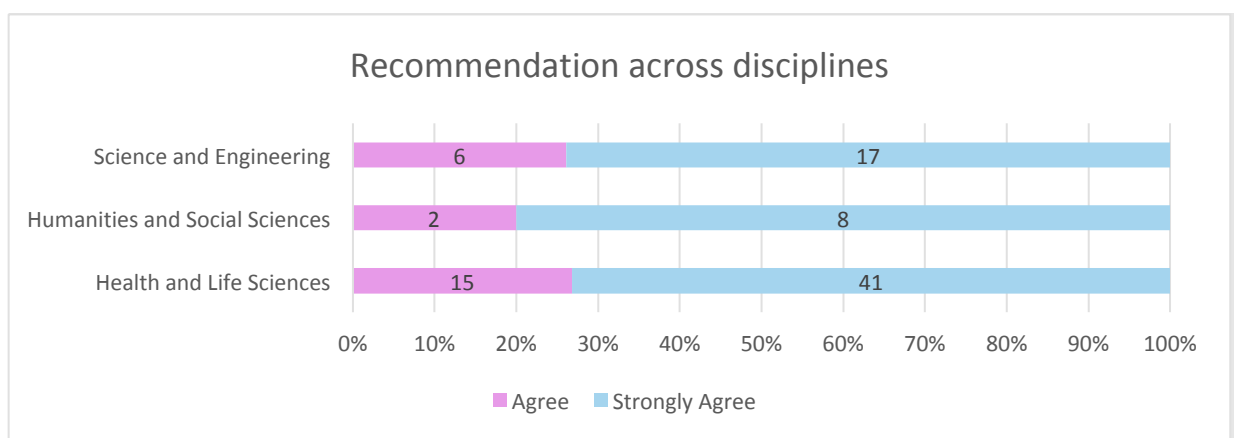


FIGURE 28: RECOMMENDATIONS IN FAVOUR OF PROSPER ACROSS DISCIPLINES

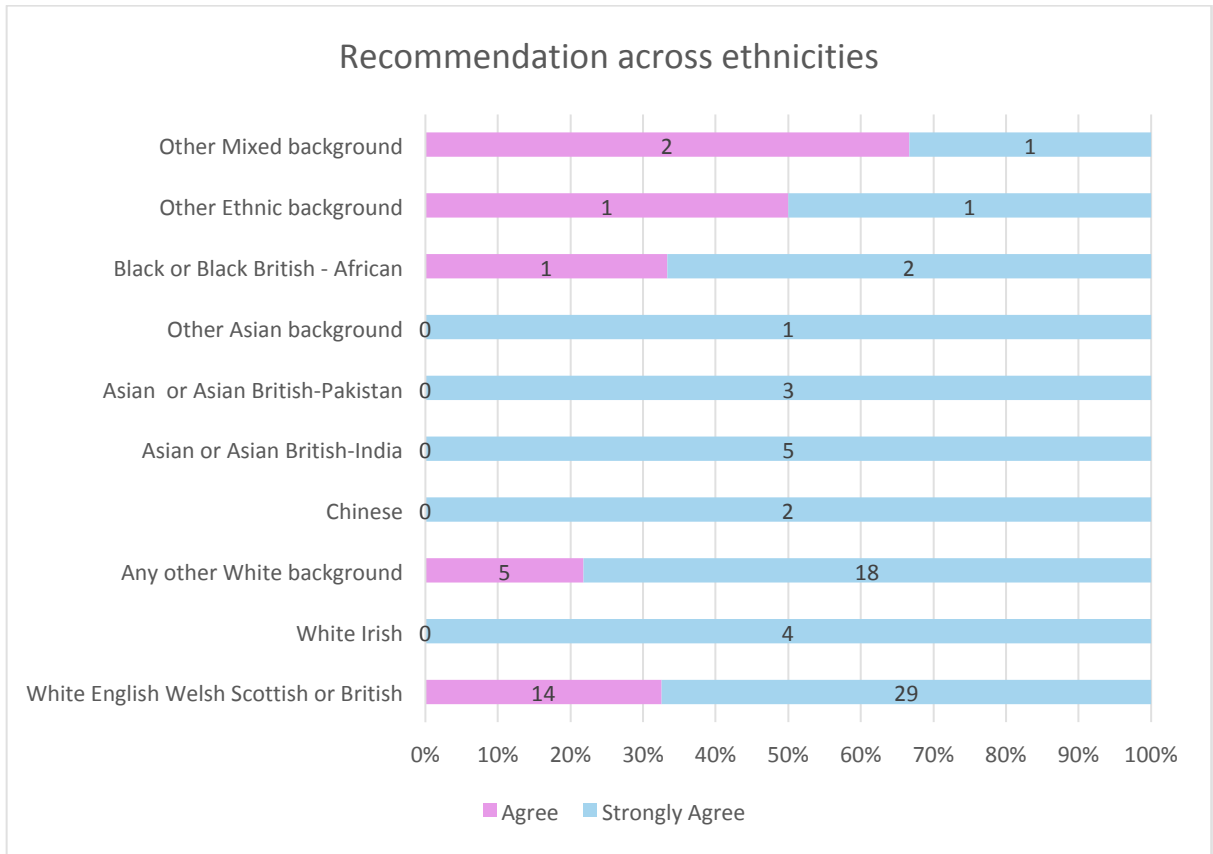


FIGURE 29: RECOMMENDATION ACROSS ETHNICITIES

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