

**Evaluation of Start Up
Loans: Year 2 Report**

RESEARCH REPORT

A report from SQW Ltd, with support from
BMG Research

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Executive Summary

About the programme

1. The Start Up Loans programme offers loans, alongside business support and mentoring, to individuals across the UK looking to start a business or to develop a recently-established business. By the end of May 2017, the programme had lent over £319m to individuals, via over 48,000 loans, with an average loan value of approximately £6,630 over the programme life.
2. The programme is managed by the Start Up Loans Company (SULCo), and funded by the Department for Business, Energy and Industrial Strategy (BEIS). On April 1st 2017, SULCo became a subsidiary of the British Business Bank.
3. The underlying case for the programme is that banks and other mainstream finance providers do not meet the demand for loans for start-up companies owing to the lack of collateral, credit history and/or trading history amongst applicants, and the low margins associated with low value loans. In addition, there can be barriers to accessing appropriate external advice for people looking to start a new business. Further, there is an equity argument, with enterprise and self-employment seen as a way to improve individuals' economic prospects.
4. The programme involves three main stages: initial 'pre-application support' to help individuals to develop a business plan; a personal loan to start-up/develop a business; and mentoring support to help develop and grow the business.
5. SULCo uses a network of just under 30 Delivery Partners to deliver the programme, responsible for the provision of pre-application support, loan assessment and mentoring support.

The evaluation

6. SQW Ltd, working with BMG Research, was commissioned by the British Business Bank in 2014 to undertake a longitudinal evaluation of the programme, with inputs also provided by Aston Business School. The evaluation is a long-term research programme, expected to deliver its final report in 2018 or 2019.
7. The purpose of the evaluation was to provide a robust assessment of the economic impact of the programme, and whether it represents value for money. Alongside these 'programme effectiveness' questions, the evaluation was tasked with testing 'programme delivery' aspects, in particular the extent to which different degrees of take-up of the pre-application and mentoring support affected business and individual outcomes.
8. The evaluation has adopted a quasi-experimental approach. This has compared the performance, via econometric analysis, of a group of individuals drawing down a Start Up Loan over the period from June to December 2014, to a matched comparison group of individuals that were also looking to or had recently started a business in the same period as the beneficiary group but had not been supported by the programme. The evaluation has also drawn on 'self-reported' evidence provided by beneficiaries to provide a complementary perspective on the effects of the programme.

9. The core evidence base that was drawn on for the Year 2 Report was a tracking survey of the beneficiary group (with 330 survey completions) and the matched comparison group (with 334 survey completions). This quantitative evidence was complemented by the findings from in-depth case studies with six Delivery Partners, interviews with programme partners and stakeholders, and a second wave of an online survey of Delivery Partners (with responses from 23 Delivery Partners).
10. This Year 2 Report represents the second output of the evaluation, following the publication of a Year 1 Report in early-2016. Year 2 of the evaluation has involved an interim assessment of the effects of the programme, updating and extending the evidence from Year 1. The Year 2 report has focused on the following:
 - from a *programme effectiveness perspective*, the evidence on the effects of the programme on the business start-up rate, business survival, early evidence on business performance in terms of sales, employment and other business outcomes and the impact of mentoring when comparing beneficiaries and the comparison group
 - from an *economic perspective*, the extent to which the programme represents value for money through a cost-benefit analysis
 - from a *programme delivery perspective*, the evidence on the effects of mentoring support within the beneficiary group, including the intensity of mentoring support
 - from a *loan book perspective*, the relationship between repayment levels and business performance.

Programme effectiveness

11. The Year 2 evaluation re-affirmed the headline finding from Year 1 that the programme has had a significant and positive effect on the start-up rate of its beneficiaries, relative to the comparison group: the start-up rate at Year 2 amongst the beneficiary group was 97%, compared to 85% in the comparison group. Put simply, more businesses have started-up than would have been the case if the programme had not been delivered, resulting in an increase in the number of business starts across the UK.
12. Business survival rates were consistent between the two-groups with no significant differences, indicating that the programme has not had an effect on survival yet. The survival rates for those that had started a company were 87% for the beneficiary group and 90% for the comparison group.
13. Alongside the encouraging findings on the business start-up rate, the analysis has found some emerging evidence that the programme has had a positive effect on business outcomes. The businesses started-up/developed by the beneficiary group generally remain small (with 1.2 employees on average – excluding the owner – and average turnover of £100k in 2016), and smaller than the comparison group (with 3.7 employees on average – excluding the owner – and average turnover of £160k in 2016). However, in the econometric analysis, a positive and significant effect of the programme was found on whether a business had increased its sales from last year to the current year, and whether a business had increased its employment from last year to the current year (both for total employment and full-time employment). Put another way, the businesses started-up or developed by individuals supported by the programme were more likely to have reported an increase in their sales and/or employment

over the past year than those in the comparison group that were not supported by the programme.

14. These effects on sales and employment outcomes were restricted to whether a business had grown its sales or employment at all (that is a binary 'yes' or 'no') to date. The econometric analysis did not, at the Year 2 stage, indicate that the absolute scale of growth to date was more pronounced for the beneficiary group. The absence of statistically significant findings on absolute growth may be owing to the early stages of development of these companies, and may also be driven by the fact that a significant proportion of turnover growth was forecast for future years (and therefore not included in the econometric analysis), not realised to date. Looking at future years, the average forecast turnover for 2017 in the beneficiary group was £165k, 65% higher than in 2016, and £197k for the comparison group, 23% higher than in 2016.
15. Additionally, it must be noted that, in respect of employment changes, while a positive association between SUL programme and employment has been found, the majority of businesses in both the beneficiary and comparison survey groups (around 80%) did not change the number of employees over this time period – though an almost complete sample size was available. Much more variation was observed on the dimension of sales, which is not surprising in the context of start up businesses, though here the sample size was lower. The impact of the Start Up Loans programme on sales (rather than on employment) is the business outcome that feeds into the value for money analysis.
16. The econometric analysis also considered the potential effects of the programme on innovation, and personal development outcomes. The key findings were as follows:
 - Innovation: the analysis suggested a correlation between the programme and innovation, with individuals in the beneficiary group more likely to have introduced new innovations to the market than those in the comparison group. This is potentially a positive message for the programme, but the causality is unclear. The programme may have attracted individuals that were more likely to engage in innovation (which is not observable in the econometric analysis), not that the programme itself has driven innovation.
 - Personal development outcomes: there was no evidence from the econometric analysis of a link between the programme and levels of, or changes in, business confidence, perceived business skills/knowledge, or personal confidence, relative to the comparison group of entrepreneurs not supported by the programme. The analysis did indicate that producing a business plan was positively associated with higher levels of business and personal confidence and perceived business skills/knowledge for both groups, and receiving non-financial support (external to Start Up Loans) was associated with reporting higher levels of personal confidence. The results on business and personal confidence remained high, with an average score of over four out of five amongst both groups. Whilst there was a reduction in the average scores on self-assessment in these areas between the Year 1 and Year 2 survey, this was true for both the beneficiary and comparison groups, and may reflect challenges as businesses progress and/or wider changes to the economic context.

17. Alongside the findings from the econometric analysis, and consistent with the encouraging messages, the analysis of 'self-reported' data suggested that the programme has brought about its intended outcomes and that some of these would not have occurred otherwise.
18. Over one-third (35%) of individuals surveyed in Year 2 that had started-up a business following the programme support indicated they would not have started their business at all without support from the programme, with only 14% indicating that their business would have started at the same speed, scale and quality without support. Timing effects were common, with 41% of individuals surveyed in Year 2 that had started-up a business following the programme support indicating the business would have started at a later date.
19. Overall, across the survey cohort (including both new start-ups and those that came to the programme with an established business), the average non-deadweight ratio in relation to business outcomes was 0.62 (i.e. the average deadweight ratio was 0.38). Put another way, the self-reported analysis suggests that nearly two-thirds of turnover effects were additional before accounting for displacement effects (and multiplier effects).
20. Feedback from the beneficiary cohort suggested higher levels of displacement were evident in Year 2 compared to Year 1; that is, where businesses started-up by programme beneficiaries take market share from non-supported firms in the wider economy. This change is owing to a perception amongst respondents that they were now operating under more competitive market conditions than when surveyed in early/mid-2015, and that their market share was more likely to be taken by competitors should they close. It may also reflect in part that individuals were better able to understand their markets one year on.

Value for money

21. The value for money of the programme is estimated to be positive, with a Benefit Cost Ratio (BCR) – that is comparing the Gross Value Added benefits of the programme to its costs – estimated at around three to one (consistent with the findings in Year 1), excluding multiplier effects. This represents the main case BCR, which is dependent upon a number of key assumptions. These assumptions included the extent to which effects persist into the future, the inclusion/exclusion of multiplier effects, the level of additionality of the programme (with varying estimates from the self-reported and econometric analysis), and the non-lending costs of the programme (with some Delivery Partners indicating that there are additional costs that are not covered by programme inputs). Therefore, whilst three to one was the main case BCR, this should be viewed from the perspective that it may be lower or higher. The sensitivity testing found a range of BCRs between just over two to one to four to one.
22. Scaling-up the results from those beneficiaries surveyed in Year 2 to the overall population of individuals supported over the evaluation period (that is 11,000 loans drawn down between November 2013 and December 2014), and making some assumptions on how long the benefits will last, provided an estimated net Gross Value Added (GVA) contribution of between £138m and £155m. The range reflects different approaches to scaling up, with the lower end of the range taking account of the difference between the arrears rate of the survey sample and evaluation population.

Programme delivery

23. In relation to programme delivery, Year 2 of the evaluation focussed on the potential effects of mentoring, as well as the factors that were driving the rate of arrears. Mentoring is

organised and offered by each Delivery Partner separately, according to standards and performance indicators set by SULCo. Delivery Partners often use volunteer mentors in order to keep programme delivery costs in line with the fees they receive.

24. By mid-2016, the evaluation suggests that the mentoring take-up rate was approaching 80%. Around two-thirds of those taking up mentoring were very satisfied or satisfied with the mentor that has been matched with them, although a notable minority (around 20%) were dissatisfied or very dissatisfied. These findings aligned with feedback from Delivery Partners, for instance on challenges relating to the capacity for mentoring and/or having sufficient mentors that matched the requirements of individual beneficiaries, and also with varying demand for mentoring amongst beneficiaries.
25. There have been positive examples of how mentoring has supported loan recipients from beneficiaries interviewed as part of a series of six case studies undertaken. Beneficiaries have identified the importance of the skills and expertise of the mentor and the translation of these to the beneficiary's business context. Beneficiaries also highlighted the listening and problem solving of mentors, and their flexibility, as key features underpinning good mentoring relationships.
26. The econometric analysis did not provide statistical evidence that the mentoring support provided through the programme had a positive influence on business or personal development outcomes to date. However, mentoring delivery has varied significantly across Delivery Partners, and there is a range of factors that drive whether an individual seeks mentoring assistance. These factors can have different implications for expected business and personal outcomes. For example, evidence from the case studies indicated that those with more business experience were less likely to take up mentoring and, as described below, those receiving more mentoring hours were more likely to be in arrears. Therefore, discerning the effects of mentoring on performance is challenging, and the absence of a statistical association between mentoring and business and personal outcomes does not necessarily mean that it has not made a difference for certain beneficiaries.
27. It is important to recognise that the programme has evolved significantly in recent years. The intention from SULCo is that these changes will – and have started to – lead to a better-managed programme, with greater consistency in the support provided to individuals (including through mentoring). These changes may not be reflected fully in the cohort of individuals covered in this evaluation as they were drawn from those receiving loans in 2014. That said, the case studies and Delivery Partner survey, which do reflect on these changes, highlighted the variation in relation to mentoring. Whilst variation can be useful, in particular if it addresses different types of demand or leads to innovative practice, (for example where mentoring assists small businesses that are in distress) it was apparent that there were some inconsistencies in the delivery of mentoring.
28. The key barriers to achieving greater consistency in the mentoring offer were reported to be around the capacity of mentors (in terms of the number available and their breadth of skills), and in highlighting the potential benefits to some loan recipients. Sharing of mentoring resources, and the provision of good practice guidelines on mentoring approaches and relationships may both be useful in helping to address inconsistencies and improve mentoring quality across the board. Consultations with SULCo indicated that these issues were 'not new' to those delivering the programme, and that plans were in place to seek to continue to

improve both the consistency and the overall quality of mentoring support as the programme moves forward.

Evidence on arrears

29. There was a positive association identified between the number of hours of mentoring taken-up by beneficiaries, and arrears on their loan repayment as at the end of March 2016. Separate analyses were undertaken on the association between different lengths of arrears and mentoring. Those in arrears for 1 month+, 3 months+ and 6 months+ were more likely to have taken up mentoring for longer (though this did not hold when considering those in arrears for 12 months+). This may indicate, encouragingly, that those in arrears have sought mentoring to help solve underlying challenges in their business and/or in how they can repay the loan.
30. Firm evidence on the factors driving arrears was limited at the stage of the Year 2 analysis. The survey cohort, which was drawn from loan recipients from June to December 2014, had a lower level of arrears than the population of the whole evaluation period, which was November 2013 to December 2014. The arrears rate was 24% by March 2016 for the survey cohort compared to 44% for the population. This difference reflected in part the timing of the draw-down of the loan amongst the survey cohort. The survey was focused on the end of the evaluation period and, other things being equal, rates of arrears would be expected to increase over time so arrears for the survey cohort may catch up to some extent with the overall population. Another factor on the timing is the evolving nature of the programme, which is expected to reduce arrears rates over time (see below). In part, this difference in arrears rates is also likely to reflect response bias, i.e. those individuals in arrears were less likely to have responded to the survey. This said, the evidence does point to a relationship between the level of arrears and business survival, with those individuals with businesses still trading less likely to be in arrears. This was as expected, and the direction of causality between loan performance and survival was not clear from the evidence.
31. Individuals involved in firms with multiple owners were more likely to be in arrears in the 'short-term' (i.e. one or three months); this may reflect the different calls on finance for these businesses that may involve multiple sources of finance from different owners; this effect was not evident for longer-term arrears. Further analysis of the factors impacting on the level of arrears amongst the beneficiary survey cohort will be an important focus for the evaluation going forward.
32. As with mentoring, it is important to recognise that the programme has evolved in recent years. As well as improving the consistency of aspects such as mentoring, the intention has also been to deliver better loan assessment decisions and improved cost effectiveness, which have resulted in significantly lower level of defaults for more recent cohorts. These changes may not be reflected fully in the cohort of individuals covered in this evaluation. However, the case studies with Delivery Partners did reflect on these changes and it was noted through these that loan assessment processes had tightened up over time.

Section 1: Introduction

SQW Ltd (SQW), working with BMG Research (BMG), was commissioned by the British Business Bank in November 2014 to undertake a longitudinal evaluation of the Start Up Loans programme (the programme), with inputs also provided by Aston Business School. This Evaluation Report is the second output of the longitudinal evaluation, following an earlier Year 1 report¹.

About Start Up Loans

Start Up Loans was announced in Lord Young's report on small business², setting out plans for a pilot in 2012/13. The programme was originally intended to target young people aged 18-24 in England, offering loans to start a business (or to develop new firms that had been trading for less than a year), alongside business support and advice. Lord Young drew on evidence of the Enterprise Programme, delivered by The Prince's Trust, and the reports of the Trust that demand outstripped supply for enterprise support of this type.

The underlying case for Start Up Loans was that banks and other mainstream finance providers did not meet the demand for loans for start-up companies owing to the lack of collateral, credit history and/or trading history amongst applicants, and the low margins associated with low value loans. In addition, there can be barriers to accessing appropriate external advice for people looking to start a new business, and there was an equity argument, with enterprise and self-employment seen as a way to improve the economic prospects for young people. The programme was not intended to generate a commercial return for Government; rather it aimed to generate economic value through addressing a failure in the market for access to finance and by encouraging entrepreneurship.

Delivery of the pilot began in earnest in September 2012, and from January 2013 the age cap was raised to 30. In activity terms, the pilot was successful in meeting targets for loans with over 2,700 loans approved, at an average loan size of around £5,300. Subsequently, there have been additional funding commitments, and Start Up Loans has been extended to all parts of the UK. By the end of May 2017, the programme had lent over £319m, through over 48,000 loans, with an average loan value of approximately £6,630 over the period since the launch of the programme. It is worth noting that the average loan value has increased over time, reaching around £11,000³ in 2016/17.

For an individual loan recipient, the Start Up Loans programme involves three stages: initial 'pre-application support' to help individuals to develop a business plan; a personal loan to

¹ The report is available to download here: <http://british-business-bank.co.uk/research/6827-2/>

² Lord Young (2012) *Make business your business: a report on small business start-ups*, London, p15

³ Excluding NEA. If NEA loans are included, the average for 2016/17 is around £9,000.

start/develop the business⁴; and mentoring support to help the individual entrepreneur to develop and grow the business. The programme is funded by the Department for Business, Energy and Industrial Strategy (BEIS).

Operational delivery of the programme is managed by the Start Up Loans Company (SULCo), which became a subsidiary of the British Business Bank on 1st April 2017 (after the research informing this report was undertaken). Programme support is delivered by a network of Delivery Partners across the UK, ranging from small local community finance institutions through to major social enterprises and charities, which are responsible for the provision of pre-application support, loan assessment and administration, and mentoring support. There have been changes in the network of Delivery Partners since the programme's inception, with some leaving and others joining the programme. As of May 2017, there were 28 Delivery Partners involved in the programme.

The evaluation

The evaluation study is a long-term research programme, which commenced in late-2014 and is expected to deliver its final report in 2018 or 2019. Over the course of the evaluation, the study will provide a 'real-time' evidence base on the delivery and impacts of the programme.

The overarching purpose of the evaluation is to provide a robust assessment of the economic impact of Start Up Loans, whether the programme is targeted effectively to maximise economic impact, and whether the economic return can be enhanced. Within this overarching intent, the evaluation has two core objectives:

- **To assess the performance of the programme against its stated objectives and intended outputs, outcomes and impacts**, including the Gross Value Added (GVA) contribution, businesses creation, growth and survival, the longer-term labour market prospects of individuals supported, and improvements in the skills and capacities of individuals supported.
- **To provide a robust assessment of the value for money of the programme**, including taking into account the additionality of the finance and outcomes generated, and where possible (and with appropriate caveats) assessing how value for money compares to similar programmes elsewhere in the UK and more widely.

The evaluation also has three supplementary objectives:

- **To assess the value of pre-application support and mentoring**, and the extent to which the pre-application support and mentoring affect the outcomes for individuals supported by the programme.
- **To assess whether there are particular characteristics associated with those individuals that benefit the most from the programme**, including individual

⁴ The loan is a personal loan, not to the proposed business; as such the individual remains responsible for repayment of the loan irrespective of the performance of the business started-up.

characteristics (e.g. age, qualifications), business characteristics (e.g. business sector), and support characteristics (e.g. the size of the loan).

- **To assess the links between the performance of businesses supported by the programme and repayment of loans**, and whether mentoring has any effect on levels of loan repayments.⁵

Drawing on the evidence, the evaluation is also required to provide practical suggestions for influencing policy delivery.

To meet the objectives, the evaluation has adopted a quasi-experimental approach. This approach has involved comparing the performance of a group of individuals supported by Start Up Loans that had drawn down a loan from June to December 2014 (the beneficiary group) to a matched group of individuals also looking to or recently starting a business that had not been supported by the programme (the comparison group). Complementing the quasi-experimental approach, the evaluation also includes longitudinal tracking of a beneficiary cohort, feedback from Delivery Partners and a set of case studies that are centred on six of the Delivery Partners. Further detail on the methods is set out in Section 2.

Re-cap on the findings from Year 1

The Year 1 report provided an initial perspective on the emerging impacts of the programme. On some important measures such as business performance and survival it was too early to be able to provide an assessment on the long-term effects of the programme. However, this context noted, the key findings from the Year 1 report related to the impact of the programme were as follows:

- The programme was found to have a significant and positive effect on the start-rate, i.e. beneficiaries were more likely to start a business than the comparison group. Having a business plan before start-up also had a significant and positive effect on the start-rate; for the beneficiary group, the evaluation found that the effect of the programme on the start-up rate was in addition to having a business plan before starting-up.
- The programme was found to have a significant and positive effect on *expected* sales change for those businesses that had started-up, although this could be as a result of the programme affecting the optimism of the beneficiary group, rather than owing to actual business performance. No effects of the programme were found on expected employment growth.
- Based on self-reported evidence provided by beneficiaries on actual and expected turnover of businesses that they had started-up, the evaluation found that the value for money of the programme appeared to be reasonable, with positive Benefit Cost Ratios (BCRs) identified by comparing the GVA effects to economic and exchequer

⁵ Note that the evaluation is not a formal assessment or audit of the programme's performance in terms of loan repayment, and/or the management of its loan portfolio.

costs, in the range of 2.9:1 to 3.7:1 (excluding and including multiplier effects respectively).

The Year 1 report also considered the effects of the pre-application support in some detail, and the findings were encouraging: three-quarters of surveyed beneficiaries reported that it improved their understanding of business planning, and improved their understanding of financial management, and over half reported that the pre-application support led to improved understanding of competitors. The self-reported qualitative effects of mentoring, where this had been taken-up by the point of the survey, were also encouraging, in terms of positive perceived effects on both business and personal development.

Overall the Year 1 report found that the programme was delivering benefits for its target group, and having a positive effect in terms of promoting enterprise; crucially, whilst it was too soon to comment on the longer-term effects of the programme on business performance and survival, the evidence indicated that more businesses had been started-up than would have been the case in the absence of the programme.

Focus of the Year 2 report

This Year 2 Report provides an interim assessment of the effects of the programme, updating and extending the evidence from Year 1. From a programme impact perspective, the Year 2 Report focuses particularly on the evidence on the effects of the programme on:

- the start-up rate (updating the evidence from Year 1)
- business survival
- changes experienced in the achieved and expected sales and employment for those businesses that have continued to trade
- the impact of mentoring and other non-financial support.

The report also considers the initial evidence on a range of wider business outcomes including the relationship between the programme and innovation activity and exporting. The Year 2 Report also reports on changes in the personal development of individuals, although it remains too early to draw definitive conclusions on the effects of the programme on personal development, which may emerge over the longer-term. Consistent with the focus of the programme, this report considers the individual progress of both those individuals that remain involved with their business, and those that have subsequently moved on to engage in other activity, for example where the business focused on in the evaluation has ceased trading.

In terms of programme delivery, the Year 2 report focuses particularly on two areas: the effects of mentoring on the performance and personal development outcomes of beneficiaries, and the links between repayment status and outcomes at this stage, including understanding the factors that are associated with individuals being in arrears on their loan repayments.

The Year 2 report also provides an update on the assessment of the Value for Money of the programme, applying a consistent approach to that used in the first year of the work based on the self-reported evidence from beneficiaries. The key issue for the Year 2 Report is to consider

the extent to which the Value for Money findings from Year 1 (that suggested a positive result) may have changed, based principally on whether the anticipated performance of individuals' businesses identified in Year 1 have been realised, including whether they have survived.

The analysis also draws on an updated assessment from surveyed beneficiaries of self-reported additionality i.e. the extent to which they consider their businesses would have started-up by the time of the survey if they had not been supported by the programme. Given the use of the self-reported data, the findings of the Value for Money assessment must be seen in the context of the econometric results on business performance to inform an overall assessment of the contribution of the programme at this interim stage. As discussed above, the econometrics tests whether the programme is a significant variable in any variation observed in the performance of the businesses started-up/developed by the beneficiary group to the comparison group.

The core evidence base for the Year 2 Report is the tracking survey of the beneficiary and comparison group. This quantitative evidence is complemented by the findings from in-depth case studies of the delivery of the programme by six Delivery Partners, interviews with programme partners and external stakeholders, and the second wave of the online Delivery Partner survey (with responses from 23 Delivery Partners).

An evolving programme

As set out above, the core evidence base for the evaluation has involved tracking the progress and experiences of a cohort of individuals that drew down their Start Up Loan between June and December 2014, compared to an external, matched comparison group. However, it is important to recognise that the programme has evolved and matured significantly since 2014. Importantly, whilst the overall objectives and delivery model of the programme have remained consistent, there have been developments in the way that the programme is managed and delivered practically on the ground. Four key points are noted:

- First, the number of Delivery Partners has been rationalised, focused on retaining those Delivery Partners that have demonstrated the ability to deliver loans at both volume and quality (in terms of loan assessment practice and pre-application and mentoring support). There were over 50 Delivery Partners involved in the programme during the period from which the beneficiary cohort was drawn (2014), and this has now been reduced down to under 30.
- Second, considerable work has been done by SULCo to develop the consistency, rigour and quality of the process underpinning the programme, at the loan assessment stage including credit checks and ensuring that individuals have sought other finance, and in the delivery of pre-application and mentoring support.
- Third, alongside the rationalisation of Delivery Partners and development of the processes and systems underpinning the programme, over the past year there has been a major shift in how the loan book is managed. As part of this, there has been a move for all loan repayments to be managed by two Finance Partners⁶ working on

⁶ Enterprise Fund Ltd (trading as Business Finance Solutions), and Street UK

behalf of SULCo, meaning that no individual Delivery Partners manage the loan distribution and repayment process.

- Fourth, by the end of the evaluation period, the average loan value had risen to £6,600. Subsequently, there has been a substantial rise in average loan values to over £8,500 in 2015/16 and around £11,000 in 2016/17.

The intention from SULCo is that these changes will – and have started to – lead to a better managed programme, with greater consistency in the support provided to individuals, better loan assessment decisions, and improved cost effectiveness, including a lower level of defaults.

These changes in the programme will not be reflected in the feedback from the beneficiary survey cohort that drew down their loans in 2014: the findings on impact and value for money set out in this report need to be reviewed in this context. However, these changes have been captured in the qualitative research completed for this Year 2 Report, notably in the case studies and Delivery Partner survey.

Structure

The remainder of this report is structured as follows:

- Section 2: Research methods
- Section 3: Progress of the survey cohorts
- Section 4: Evidence on programme effectiveness
- Section 5: Evidence on programme delivery
- Section 6: Interim assessment of impact and Value for Money
- Section 7: Conclusions and implications.

Four annexes are also provided in this document: Annex A: Econometric tables and technical annex; Annex B: Further sensitivity analysis; Annex C: Findings from the Delivery Partner survey; and Annex D: Method to identify self-reported deadweight. The Delivery Partner Case Studies are provided in a separate accompanying document.

Section 2: Research methods

Coverage

This section sets out the research methods of the evaluation, and the Year 2 research specifically. It includes: an overview of the characteristics of the beneficiary and comparison groups, a consideration of issues related to response bias in the longitudinal survey, and the approaches taken to the econometric, self-reported, and qualitative elements of the analysis, including any limitations and implications for the analysis/interpretation of the findings.

Overview of the research approach

The evaluation is adopting a quasi-experimental approach, comparing, through longitudinal research and econometric analysis, the outcomes of a sample of beneficiaries of the programme to a matched comparison group of non-beneficiaries. The comparison group includes individuals with similar entrepreneurial behaviours and intentions, but that have not been supported by Start Up Loans, so that the effect of the programme can be isolated. This approach is being used alongside a longitudinal assessment of beneficiary outcomes, which draws on self-reported evidence and analyses how outcomes vary across different types of programme beneficiary (e.g. by demographic background, business characteristics and support characteristics).

The key elements of the evaluation approach to date (which are discussed in greater detail below) have included:

- the initial identification of beneficiary and comparison groups, matched as far as practical in terms of the stage at which entrepreneurs are in the start-up process, with both groups tracked over the course of the evaluation
- a tracking survey, completed at annual intervals for two years (with scope for a possible further two years of surveys), covering the business and personal development outcomes for the beneficiary and comparison groups
- econometric analysis to compare the outcomes of the beneficiary and comparison groups in terms of the start-up/survival/growth of their business, individual economic returns (salary, employment), and wider personal development issues (in terms of confidence, aspirations etc.); the econometric analysis has also sought to take account of differences between the two groups, e.g. in terms of individual and business characteristics
- complementing this econometric analysis, analysis based on self-reported information from the survey evidence, providing estimates of self-reported additionality and impacts that have informed an assessment of Value for Money, identifying benefit cost ratios (BCRs) for the programme
- descriptive and econometric analysis to look within the programme beneficiary cohort, including analyses of the relative impact of different aspects of the programme, variation in financial performance (e.g. repayment), and the characteristics of beneficiaries that have benefitted the most.

Alongside the core approach, the evaluation programme has also included a number of research strands to provide qualitative evidence on the programme to complement the quantitative approach. This has included:

- engagement with programme Delivery Partners via an annual online survey
- consultations with programme partners and stakeholders to provide broader insight into the delivery and strategic effects of Start Up Loans
- six case studies, that have been centred on six different Delivery Partners, with the first wave of the research completed in Year 2, to probe in greater detail the messages emerging from the core analysis.

The beneficiary and comparison groups

Beneficiary group

The survey beneficiary group was drawn from those individuals that drew down a Start Up Loan between June and December 2014. This period was selected to provide the most appropriate 'baseline' data for the beneficiary cohort, taking into account that pre-application support will have been received in advance of the loan approval date. Moreover, this period was subsequent to when the programme became available for all UK residents, and so there are no age-related or spatial issues with respect to eligibility that may impact on the ability to compare results to a comparison group.⁷ The Year 1 survey involved a sample of 972 beneficiaries (equivalent to 972 loans).

Of the 972 completions in Year 1, 839 stated that they would be willing to participate in another survey in the future; the 839 therefore provided the sampling frame for the Year 2 survey that were contacted by BMG Research over a 14-week period from June-early September 16. Surveys were completed with 330 beneficiaries, a response rate of 39%, providing a survey sample for the Year 2 analysis of 330⁸. The implications of the sample size for the econometric analysis is discussed below (see Approach to the econometric analysis).

As set out in Table 2-1, the survey sample in Year 2 was well matched to the larger sample in Year 1 in terms of gender, loan value, and employment status prior to engaging with the programme. The age breakdown of the Year 2 sample was weighted to older beneficiaries compared to the Year 1 survey, with 64% aged 31 and over, compared to 56% in the Year 1 survey (a difference significant at 5%). This was accounted for in the econometrics with 'age' controlled for in the analysis. It is also worth noting that the proportion of individuals that came

⁷ The time-period for the evaluation population is November 2013 to December 2014. The total number of loans drawn down over November 2013 to December 2014 (n=11,001) is the 'evaluation population' referred to in this report.

⁸ Within the timescales and resources of the evaluation, and taking into account sample sizes required for the analysis, it was agreed with the British Business Bank that 330 was a sufficient sample size for the Year 2 analysis, and that this group would not be topped-up by using later cohort of beneficiaries which would have implications for the analysis.

to the programme to start-up a new business, and to develop an existing business, were consistent between the two years (Year 1 = 73% and 27%, Year 2 = 72% and 28% respectively).

Table 2-1: Characteristics of the beneficiary survey sample in Year 1 and Year 2

| | Year 1 (n=957*) | Year 2 (n=323**) |
|---|-----------------|------------------|
| Gender | | |
| Male | 61% | 62% |
| Female | 39% | 38% |
| Age group | | |
| 18-30 | 44% | 36% |
| 31+ | 56% | 64% |
| Loan value | | |
| Up to 3k | 21% | 19% |
| 3k to 8k | 54% | 51% |
| Over 8k | 25% | 30% |
| Employment status at application (SUL CRM) | | |
| Unemployed | 38% | 34% |
| Self-employed | 27% | 32% |
| Employed (FT+PT) | 31% | 32% |
| Other | 4% | 2% |

Source: Year 1 and Year 2 surveys * Data on characteristics were not found in the CRM for 15 survey respondents in the Year 1 survey cohort. For employment n=956. ** It was not possible to identify characteristics data on seven respondents, accounting for the difference between the survey sample of 330 and the n-value; for gender n=317; for employment status n=318.

As noted in Section 1, there have been changes in the Delivery Partners involved in the programme since the period that individuals in the survey cohort drew down their loan. Of the survey sample of 330 in Year 2, over three quarters (251) secured the loan from a delivery partner that was still involved in the programme by late-2016. However, just under a fifth (64) of the individuals in the survey cohort had secured a loan in 2014 from a Delivery Partner that is no longer involved in the programme.⁹

The characteristics of the survey sample in Year 2 was consistent with the wider evaluation population as a whole (that is, the approximately 11,000 individuals that drew down loans over the November 2013 to December 2014 period) on a number of important measures. There was no statistical difference between the two groups in terms of gender split, or whether the beneficiaries were unemployed/employed/self-employed when they approached the programme. However, there were some statistical differences between the survey sample in Year 2 and the evaluation population as a whole, notably in terms of age-breakdown (64% of the Year 2 survey

⁹ It was not possible to identify the data for 15 of the beneficiary cohort

cohort were Aged 31+ compared to 54% in the evaluation population), and loan value (30% of the Year 2 survey cohort drew-down loans of £8k or over compared to 25% in the evaluation population). There were also some statistical differences in the ethnicity and location of the Year 2 survey cohort compared to the evaluation population.

Variation in the make-up of the survey sample in Year 2 compared to the evaluation population is to be expected, given the wide range of factors that influence response rates to a survey (related both to the development of the business and the individual including their availability and willingness to participate), particularly a longitudinal survey over a number of waves. However, this variation is important potentially when considering the overall effects of the programme based on findings from the survey sample, and the analysis has sought to account for this variation where feasible, for example in the scaling-up of the results on impact.

Comparison group

The construction of the comparison group, including research design and fieldwork for the screening (and subsequent fieldwork for the tracking survey), was delivered on behalf of the British Business Bank by a team led by Aston Business School, contracted separately, but working closely alongside, the SQW-led evaluation team. The comparison group sought to include a set of individuals that represented a good match for Start Up Loans beneficiaries in terms of those looking to start or having recently started a business, i.e. their stage in the entrepreneurial process. This formed the basis for acquiring a matched sample given the core requirement to assess business outcomes.

The comparison group identified for the Year 1 report was based on a combination of individuals identified from the Global Entrepreneurship Monitor (GEM) 2014 survey, and a supplementary screening process to identify further individuals.¹⁰ Ultimately around 1,500 eligible individuals were identified. Following completion of the Year 1 tracking survey and further eliminations to improve the match, a comparison group of 576 individuals was established in the Year 1 research.¹¹

Of these 576 completions in Year 1, 456 stated that they would be willing to participate in another survey in the future; the group of 456 individuals therefore provided the sampling frame for the Year 2 survey that were contacted by BMG Research over a 14-week period in June-early September 16. Surveys were completed with 222 of these individuals, a response rate of 49%.

Given the lower sample size for the comparison group compared with the beneficiary group, it was agreed with the British Business Bank to seek to 'top-up' the comparison group, using the GEM 2015 survey to identify a further cohort of individuals that matched the beneficiary cohort on stage of business development. Applying a consistent approach to that completed in Year 1, this process identified a further 352 individuals that met the criteria and were willing to

¹⁰ For further details on the construction of the comparison group in Year 1 see the Year 1 report here: <http://british-business-bank.co.uk/research/6827-2/>

¹¹ The sample available for the analysis in Year 1 was 498, with a further 78 individuals identified through the screening process that were not available at the time of writing the Year 1 report.

participate potentially in a follow-up survey. Of this group of 352 individuals, surveys were completed with 112 individuals.

Taken together, the two approaches provided a comparison group for the Year 2 evaluation of 334 individuals.

Characteristics of the beneficiary and comparison groups

Individuals self-select into the Start Up Loans programme, and the programme itself involves some selection, which may be partly dependent on programme reach and also the application process. Given this selection, programme beneficiaries might reasonably be expected to differ from the wider population, even those with similar entrepreneurial ambitions and activities, with differences in entrepreneurs' personal characteristics therefore evident between the beneficiary and comparison groups.

For Year 1 of the evaluation, with a beneficiary sample of 972 and comparison group of 498 some differences were evident in terms of personal characteristics: beneficiaries were younger than the comparison group, and beneficiaries were less likely to have been in employment at the time of the survey (with 33% of the beneficiary group unemployed, compared to 21% of the comparison group). As set out in Table 2-2, these trends were also evident for the Year 2 samples, with significant differences in the age profile of the two groups, and the proportion of individuals that were unemployed when they first gave serious thought to starting up a business; in turn, the proportion of individuals in the beneficiary group that were employed when they first gave serious thought to starting up a business was significantly lower than the comparison group. These statistical differences have been accounted for in the econometric analysis through controlling for such characteristics in the modelling.

The econometrics also accounted for qualifications as a variable in the analysis (through a binary variable on whether people were degree-level qualified). The overall mix of qualifications between the two groups was similar, although the comparison group had a significantly higher proportion of individuals with a postgraduate degree or equivalent than the beneficiary group.

Table 2-2: Characteristics of the beneficiary and comparison groups

| | Beneficiary group (n=323*) | Comparison group (n=334**) |
|--|-------------------------------|-------------------------------|
| Gender | | |
| Male | 62% | 65% |
| Female | 38% | 35% |
| Age group | | |
| 18-30 | 36% | 17% |
| 31+ | 64% | 83% |
| Employment status when first gave serious thought to starting up a business ¹² | | |
| Unemployed | 29% | 21% |
| Self-employed | 18% | 16% |
| Employed (FT+PT) | 47% | 55% |
| Other | 6% | 7% |
| Highest level of qualification | | |
| A postgraduate degree or doctorate, NVQ / SVQ Level 5 or equivalent | 22% | 28% |
| A degree or higher degree, HND, HNC, NVQ / SVQ Level 4 or equivalent | 37% | 37% |
| A levels, SCE higher, NVQ / SVQ Level 3 or equivalent | 17% | 18% |
| GCSE, O Levels, SCE standard, NVQ / SVQ Level 2 or equivalent | 13% | 10% |
| No formal qualifications | 2% | 3% |
| Other | 9% | 5% |

Source: Year 2 survey * For gender n=317; for employment status n=330, for qualification n=327; ** For age n=333, for qualifications n=332

Response bias

With a longitudinal survey as the core evidence base for the evaluation, there is a risk of response bias, where those individuals that have had a more positive experience with their business are more likely to respond to a survey. This is a risk in the second (and subsequent years) of the

¹² This data is based on the survey evidence from the year 1 survey for the beneficiary group and the 'old' comparison group, and the Year 2 survey for the 'new' comparison group. The data for the beneficiary groups differs from the monitoring information provided by SULCo; the SULCo data refers to the employment stats at the time of first approaching the programme, whereas the survey data is based on when the individual first gave serious thought to starting up a business, which in most cases was earlier, reflected in the lower rate of self-employment, and higher rate of employment

survey amongst the beneficiary group and the 'old' comparison group that were surveyed for the evaluation in Year 1, and also the 'new' comparison group that were obtained via GEM.

The issue of response bias is relevant for both the self-reported and econometric analysis. For the self-reported analysis, the risk is that those individuals with businesses that have survived and/or performed well (or that have more broadly had a positive experience from the programme) were more likely to respond to the survey, meaning that the survey group is not representative of the experiences of the evaluation population. Where this is evident, conclusions on the performance of the programme drawn from the evidence of the survey group may potentially be misleading.

For the econometric analysis, given that the focus is on comparing the *relative* performance of these two groups on a range of outcomes, the risk is that there is a greater (or lesser) degree of response bias evident in the beneficiary group (for example related to business performance) than in the comparison group (or vice versa). Where this is evident, comparisons between the two groups, both in terms of progress over time and in terms of current performance/perceptions, may also potentially be misleading.

Quantifying the exact level of response bias is not possible: we do not know how those individuals surveyed in the beneficiary and comparison group in Year 1 who did not participate in the Year 2 survey have performed in the period following the Year 1 survey in terms of the development of their business, or their own wider personal development. However, analysis of the reasons as to why those individuals that agreed to be re-contacted, but refused to take part in the Year 2 survey, suggests that there may be some response bias in play. As discussed below, this response bias is not systematic and there appears to be some consistency in response bias between the beneficiary and comparison groups, which provides reassurance that the two groups can be meaningfully compared.

The analysis of response bias involved two steps. First, the available data on why individuals refused to participate in the Year 2 survey were considered; the key issue here is whether there is evidence that there are any systematic reasons associated with the performance of the business driving refusal rates across the two groups. Second, and drawing on this, further detail was considered on those individuals that refused to participate in the survey owing to their business being closed/no longer being with the business, and those that did not start the business, including whether there are any systematic differences in the biases *between* the beneficiary and comparison groups. The evidence from these two stages of analysis is set out below.

Reasons for refusal to participate in the survey

A summary of the reasons for refusal are set out in Table 2-3. The data are presented for those individuals surveyed in Year 1 in the beneficiary group and the comparison group (old comparison group), and, separately, the individuals identified in the GEM 2015 top-up screening in Year 2 that did not subsequently complete the survey (new comparison group). The difference in the refusal rate of the beneficiary group at 26% and the 'old' comparison group at 22% is *not* statistically significant (at 5% level), although the difference in the refusal rate between the beneficiary group at 22% and the 'new' comparison group at 32% is statistically significant (at 5% level).

Table 2-3: Summary of reasons for refusal to participate in the Year 2 survey

| | Beneficiary group | Old comparison group | New comparison group | Total comparison group |
|--|-------------------|----------------------|----------------------|------------------------|
| Total sample | 839 | 456 | 352 | 808 |
| Refused | 214 | 102 | 111 | 213 |
| % refused | 26% | 22% | 32% | 26% |
| % of refusals based on following reasons: | | | | |
| Business closed/no longer with business | 6% | 11% | 4% | 7% |
| Did not start business | 3% | 7% | 10% | 8% |
| Not interested | 55% | 49% | 46% | 47% |
| No time/too long | 18% | 12% | 14% | 13% |
| Other reasons | 19% | 22% | 26% | 24% |

Source: Year 2 survey

Refusal to participate owing to 'business-related' reasons

For the purposes of understanding response bias, we are interested particularly in those individuals that refused to participate in the survey owing to their business being closed/no longer being with the business, and those that did not start the business. These outcomes are still within the scope of the evaluation: if, for example, beneficiaries were more likely than the comparison group (or vice-versa) to refuse based on the business closing or not starting, this could impact on the analysis relating to start-up rates and survival rates. We can make some indicative comparisons with the profile of survey respondents, though there are limitations here. For instance, those specifying 'other reasons', not being interested in the survey or not having time may also not have started the business or the business may have closed, but we do not have this information.

The data are set out in Table 2-4, indicating that the proportion of those that refused to participate in the survey that did not start a business were slightly lower for both the beneficiary and comparison groups (at 6% and 16% respectively), than the survey respondents (at 9% and 26% respectively), although this difference is only statistically significant for the comparison group. The difference may reflect unknown data where refusers gave 'other reasons' but where the business had also not started. By contrast, for the individuals that refused to participate in the survey who stated their reason was that the business had closed or that they were no longer with the business, there were no statistically different results between respondents and refusers. Therefore, based on the evidence available, whilst there does appear to be some response bias in play (within the comparison group, for those that did not start-up), there are no systematic differences in response bias between beneficiary and comparison groups.

Table 2-4: Comparing status between survey respondents and refusals

| | Beneficiary group | | Comparison group | |
|---|-------------------|----------|------------------|----------|
| | Respondents | Refusals | Respondents | Refusals |
| % business closed/no longer with business | 14% | 12% | 7% | 13% |
| % did not start business | 9% | 6% | 26% | 16% |
| Total sample* | 326 | 97 | 295 | 112 |

Source: Year 2 survey *Excludes those in the refusals group that stated simply "not interested" or for which no reason was provided

Response bias related to re-payment status

One further issue related to the potential for bias in the survey responses, focused on the beneficiary cohort only (with implications for the self-reported analysis), is related to re-payment status. Specifically, it is possible that individuals that are in arrears in their loan re-payment (i.e. they have missed loan re-payment points) will be less likely to respond to the survey relating to the programme. As a result, the survey group may not be representative of the wider beneficiary cohort, and given the links (tested in the report, see Section 5) between arrears status and business performance, over-estimate the effect of the programme.

This issue was not identified explicitly as an issue by those individuals contacted for the Year 2 survey that refused to participate (although this may be because they were not willing to discuss/identify financial issues). However, in both the Year 1 survey, and the Year 2 survey, the arrears rate of individuals that did respond to the survey was below the average for the evaluation population as a whole (see Section 3 for further details), suggesting that there may be some response bias related to re-payment status. The evaluation needs to be cautious in scaling-up the results from the beneficiary survey group to the wider beneficiary cohort, where levels of arrears are higher. This has been addressed in Section 6 by assessing the findings based on weighting the scaling-up of the results by arrears status.

Approach to analysis in Year 2

Approach to the econometric analysis

The econometric analysis has involved two elements:

- **Programme effectiveness analysis:** a set of tests on whether the programme (including mentoring) has helped programme beneficiaries to achieve better results than the comparison group, including in terms of both business performance and personal development
- **Programme improvement analysis:** a set of tests on the contribution of the programme (including mentoring support) to personal and business development of the beneficiary group alone.

There was commonality in the analysis applied across both of these elements. A key conceptual issue in analysis of these data was the possibility of detecting positive (or negative) effects associated with the programme, that stem not from Start Up Loans itself, but through self-selection into being a beneficiary of the scheme. The programme provides non-financial and financial support to individuals to start-up/develop a business; therefore, its lending may potentially be orientated more towards those individuals with 'better' business ideas and/or with a better understanding of the sources of finance available to them, leading to them approaching the programme. As a result of this, subsequently their businesses may be more likely to be profitable and continue to trade, in order to provide greater assurance of repayment of the loan. On the other hand, those individuals that choose to apply to the programme may be those who felt that they needed extra support and/or were unable to obtain start-up funding from elsewhere (family and friends or commercial providers), where the support of the programme may be expected to level the playing field with entrepreneurs who did not apply. Where a selection issue was relevant, a Heckman sample selection model has been adopted¹³. This technique responds to the issue of differentiating between scheme effects and selection effects.

In order to test for, and address, selection bias, the first stage was to estimate a model which sought to explain the probability that an individual was supported by Start Up Loans. If the model finds no distinctive patterns in the beneficiary group (i.e. there is no evidence of selection bias), a standard regression model is then preferred. Where there are distinctive patterns (i.e. there is evidence of selection bias), a second stage in the Heckman approach is used.¹⁴

The second stage of the two step Heckman model explained scheme effects, controlling for selection bias by using information from the first stage Heckman model (see technical annex, Annex A, for further details). Where this Heckman information proves significant in the model, it provides further insight into the selection process. For example, if we were to test the impact of the programme on an outcome (e.g. sales change) and the Heckman selection information proved to be significant and negative, this would show that the businesses started-up by individuals supported by the programme had an inherently lower potential for sales growth. In addition, the models showed which other explanatory variables were significant, including if being a Start Up Loans beneficiary had an impact, as well as a range of additional explanatory variables.

The explanatory variables used in this second stage of the Heckman model analysis were based on three thematic areas that were anticipated, based on economic theory and the characteristics of the programme, as being potentially important in explaining the outcomes of interest. These were as follows:

- **Owner characteristics:** the age of owner (and age-squared), their gender, dummy variables for different geographical areas, whether they had previously owned a

¹³ Annex A provides an explanation for the choice of approach, i.e. why the Heckman sample selection model was used as opposed to other approaches, say a propensity score matching approach.

¹⁴ For example, the results of the first stage equation suggest that having previous business experience and being unemployed at the point of application were positively associated with becoming a SUL beneficiary. Further details of the findings on selection effects are provided in Annex A, and specifically Table A-5.

business, whether they were economically active prior to starting their business and whether they were degree educated.

- **Business characteristics:** the age of business (and age-squared), whether the business had multiple owners, dummy variables for different sector groupings, and sales in the previous year (as a proxy for the start-up's size).
- **Strategy characteristics:** whether the business had a business plan, and the use of other (non-Start Up Loans) forms of financial and non-financial support.

Interpretation of these results involved reading the significance and the coefficient. Reading the results of the outcome equation provided an indication of the extent to which independent variables were statistically significant in explaining change in the dependent variable. In policy terms the important variable is labelled 'Start Up Loans' in Section 4 and the appendix, and the programme may be said to be significant in explaining a difference in the relevant outcomes where it records a significance score <0.05 (5%); and a weak level of statistical significance where it records a score of <0.1 (10%). Furthermore, the coefficient for Start Up Loans support may be either positive or negative (the Start Up Loans variable is binary, coded as 1 for beneficiaries, and as 0 for members of the comparison group). As such, a positive coefficient suggested that there was a positive association between the programme and the variable of interest (e.g. increasing the likelihood of starting a business, higher sales, greater business confidence, etc.); whereas a negative coefficient suggested that the comparison group were faring better on the variable of interest. The coefficients in the probit models cannot be interpreted in a meaningful way as presented in the Annex tables. The coefficients can be used to calculate the 'marginal effect' of a particular variable on the outcome of interest. For the main variable of interest, i.e. the SUL intervention variable, these calculations have been made where significant in the models, and subsequently presented as part of the narrative in the results section that follow.

The aim of the analysis is to evidence the causality of the programme (i.e. that Start Up Loans has - or has not - led to a particular outcome). However, in some cases it may only be possible to identify a correlation (i.e. that the programme is associated with an outcome), particularly where there are a wide range of factors, including unobservable factors, that may be impacting on the outcome variable. Whilst the quasi-experimental research design adopted lends itself to discussing the results in causal terms, conclusions regarding causality (i.e. that the programme has led to the achievement of an outcome, not simply that it is associated with these outcomes) have been made only where this analysis was corroborated by the evidence from the self-reported analysis and/or qualitative research, and where the findings were consistent with the theory and assumptions underpinning the model. In other cases, where the evidence was less clear cut, we highlight the correlation/association between the programme and relevant outcomes.

The principal limitation of this year's analysis, relative to the first year's analysis, related to samples sizes, which were more limited owing to attrition between the waves of the survey (which was anticipated at the outset of the evaluation, and informed the size of the survey groups in Year 1). This has meant that in developing the econometric models, decisions have had to be made around the number of explanatory variables that could be included. Our approach was to specify a 'core' model of the most important personal, strategic and business characteristics, based on theory and the characteristics of the programme, and then iteratively

input the 'additional' variables into the models to test for their significance. 'Additional' variables were only included in the final, presented results where they were significant and/or improved the fit of the model. The sample sizes on which findings are based are set out clearly for each of the outcomes reported-on, with any implications regarding the interpretation of the results and statistical strengths of the findings identified discussed for each outcome respectively.

In the reporting of the econometrics in Sections 4 and 5, the results are summarised to include those variables that are statistically significant.

Full model specifications are detailed in the technical annex (Annex A).

Approach to self-reported estimates

To complement the econometric analysis, Year 2 of the evaluation also included analysis on the effects of the programme based on primary evidence provided by beneficiaries in the survey. This included analysis of the information provided by beneficiaries on the progress of their business (including sales and employment), and the extent to which the programme has had an effect on this performance. This latter evidence was focused on so-called 'self-reported outcome additionality' where beneficiaries were asked to provide evidence on what would have happened to their business if they had not been involved in the programme.

Consistent with the approach in Year 1, this self-reported evidence has been used to provide an interim assessment of the impact and potential value for money of the programme. This has included converting the 'gross' effect provided on business turnover (both achieved and expected) to a 'net' effect, taking into account individual beneficiary reflections on what would have happened without support from the programme (deadweight), and other key factors such as the extent to which firms supported by the programme may have taken market share away from existing non-supported firms (displacement). To account for the inherent uncertainty in responses, especially with respect to future potential effects, the analysis has accounted for optimism bias.

Despite the incorporation of optimism bias into the analysis it is important to recognise that there are some weaknesses in the use of self-reported data as it relies on beneficiaries being able to answer hypothetical questions in relation to a counterfactual situation (i.e. what they would have done and what their business would have achieved without the programme). However, a conservative approach has been taken to incorporate survey responses into the value for money assessment. Note that the evidence from the Year 1 report on 'finance additionality' (that is whether beneficiaries believed they would have been able to access this finance from other sources if a Start Up Loan had not been provided) has again been used in the Value for Money model that has informed this Year 2 report. These data, drawn from a survey completed in early 2015 (within a year of when beneficiaries drew down their loan) are regarded as more robust than data from some 18 months on in mid-2016 (when there may have been challenges associated with memory recall).

The Year 2 analysis has updated other aspects of the Value for Money model that was developed in Year 1. This model included estimates of the total costs of the programme for the survey cohort (including lending and non-lending costs) expressed in terms of both Exchequer Costs (the costs to government of the programme), and Economic Costs (which are the Exchequer

Costs, plus opportunity costs and accounting for finance additionality). The model also includes estimates of benefits expressed in terms of net Gross Value Added (GVA) based on turnover effects drawn from the self-reported evidence. Consistent with the approach agreed for the evaluation, the model did *not* monetise benefits such as moving people into employment¹⁵, or wider effects such as improved confidence or skills. However, these wider effects were considered in the broader qualitative assessment of the effects and overall value for money of the programme.

Approach to analysis of qualitative evidence

As noted above, the research in Year 2 has involved three strands of qualitative research: Delivery Partner case studies, the second wave of the online Delivery Partner survey, and consultations with partners and stakeholders of the programme.

Case studies

The purpose of the case study research was to:

- test how and why the programme has (or does not have) an effect on beneficiaries to complement the quantitative data from the survey and econometric analysis
- provide evidence on the variation in the implementation of the programme that may affect the overall assessment of the effects of the programme, for example, if there are different modes/types of delivery, or different types of individual/business characteristics that have an influence on whether the programme has an effect
- provide evidence to inform a review of delivery processes themselves.

The first wave of case study research was completed for this Year 2 evaluation with six Delivery Partners, covering a range of spatial levels and scales of activity. The Delivery Partners were: Virgin Start-Up, a partner delivering loans across the UK directly, and through a network of local enterprise agencies; London Small Business Centre, that delivers Start Up Loans principally in East London; Biz Britain, that delivers loans to individuals across the country, but with a particular focus on the West Midlands; Enterprise NI, focused on the delivery of the programme across all areas of Northern Ireland, with the pre-application and mentoring support delivered practically by a network of local enterprise agencies across the area; Financing Start-Up Enterprise, focused on loans in North London and Hertfordshire; and Finance for Enterprise, providing loans to individuals across Yorkshire.

A second wave of case study research will be undertaken later in the evaluation. The Delivery Partners were drawn from a prioritised list of ten Delivery Partners agreed with the BBB and SULCo to provide a range of Delivery Partner types in terms of the scale of activity, average loan

¹⁵ This is owing to the expected small sample size of this group, which would make robust evidence difficult to ascertain, and was agreed at the outset of the evaluation.

size, spatial focus, and a mix of those with a 'generalist' approach to the programme and those focused (or with an emphasis) on specific target groups or type of beneficiary.

Each case study involved a site-visit to the Delivery Partner and interviews with managers responsible for the delivery of Start Up Loans, individuals responsible for delivering pre-application support and mentoring support to beneficiaries. Where possible, the case study also included qualitative interviews with a number of beneficiaries.¹⁶

The case study evidence has been used in two ways. First, each case study has been written-up to a standard format as a formal output of the evaluation, with the write-ups shared with the relevant Delivery Partner to check for factual accuracy; the six case-studies are provided in a separate document published alongside this main report. Second, the findings from the six case studies have been analysed qualitatively, with key messages used throughout this report to complement the findings from the quantitative evidence.

It is important to note that the case study evidence was not intended to be representative of the delivery of the programme as a whole across the 31 Delivery Partners. As noted in the Year 1 report and throughout this Year 2 report, although the overall stages of support are consistent (pre-application, loan, mentoring), there is considerable variation in how the programme is delivered practically across its delivery network, and each Delivery Partner does things in a different way. Rather, the purpose of the case studies was to provide evidence on how the programme has been implemented by six of its Delivery Partners to provide qualitative evidence, including any common themes or issues that emerge from the six Delivery Partners, that can help to explain further the results from the quantitative analysis.

Delivery Partner survey

An online survey was distributed to all existing Delivery Partners, including both those partners that had completed the survey in Year 1 and those that had been sent the survey but did not provide a response. Responses to the survey were received by 23 of the Delivery Partners: 19 that had completed the survey in Year 1, and four that had not.¹⁷

The findings of the Delivery Partner survey are summarised in Annex B, with key messages and results from the survey used throughout the report where relevant, including in relation to the assessment of programme delivery in Section 5. Note that the evidence provided by Delivery Partners is presented at an aggregate level in most cases, and where individual responses are identified, these are presented in an anonymous format.

¹⁶ Beneficiaries were interviewed in five of the six case studies, with interviews completed with 21 beneficiaries across the five (ranging from two interviews to six interviews). In one case, the Delivery Partner contacted around 40 beneficiaries to seek their engagement in the case studies on behalf of the evaluators; however, these beneficiaries were not willing to participate in the research so it was not possible to engage with beneficiaries as part of the case study research.

¹⁷ Note that one of the respondents offered only partial responses; these have been included in the analysis where relevant, however in most cases the results are based on 22 responses.

Partner/stakeholder consultations

Consultations have been completed with a mix of programme partners and stakeholders. The purpose of the consultations was two-fold: first, to test the interim results from the evaluation and provide an opportunity for partners and stakeholders to provide perspectives that could help to explain and contextualise the results; and second, to gather perspectives on the strategic effects of the programme on the enterprise and access to finance landscape. Again, the evidence from the consultations has been used throughout the report where relevant, and presented in an anonymous fashion.

Section 3: Progress of the survey cohorts

Key findings

- The majority of individuals in the beneficiary and comparison groups were still involved with the business that they were seeking to start-up/develop, around 85% of individuals in both cases with no significant difference between the two groups.
- For the 15% of surveyed individuals in both groups that were no longer involved with the business a wide range of factors explained this. Personal issues not related to the performance of the business itself were common, and no consistent explanation was evident within and across the two groups. The majority of individuals no longer involved in the business have not, and do not intend, to start another business.
- Around nine out of ten businesses that have started-up were still trading by the point of the Year 2 survey in both the beneficiary and comparison groups.
- Around a third of individuals in the beneficiary group with businesses that were still trading were also involved in other forms of economic activity, with most of these a full- or part-time employee for a separate employer. The level of involvement with other activity was higher for individuals in the comparison group, at around a half.
- Consistent with the findings from the Year 1 research, businesses started-up/developed by the comparison group were on average larger than those in the beneficiary group in terms of both employment (including full-time employment) and turnover. Businesses started-up/developed by the beneficiary group also relied more heavily on part-time (rather than full-time) employees relative to the comparison group.
- Over a quarter of individuals in the beneficiary group with a trading business had secured external finance (not including Start Up Loans finance) for their business over the past 12 months, above the rate for the comparison group (19%). Where external finance had been secured, the mean was around £30k for both groups (excluding a small number of individuals that secured large volumes of funding, over £500k); however, the median value of external finance secured was higher for the comparison group at around £14k, than the beneficiary group, at £10k. Banks, family and friends, and the public sector the most common sources of external finance.
- Whilst the beneficiary group was more likely to have secured external finance than the comparison group, the survey evidence suggested that unmet demand for external finance was higher amongst the beneficiary group: a quarter of individuals in the beneficiary group with a trading business indicated they required external finance/more external finance, compared to just 10% in the comparison group.

Coverage

This section provides an overview of the progress and status of the individuals in the beneficiary and comparison groups, related both to their business/business idea (including access to finance), and their own individual development (in terms of employment or other enterprise activity). The section also sets out the evidence on loan re-payment, covering both the evaluation population as a whole (i.e. the approximately 11,000 loans drawn down over the November 2013 to December 2014 period), and the beneficiary group covered in the survey.

Status and engagement

The second wave of the survey secured responses from 664 individuals: 330 beneficiaries (all of whom had been surveyed in Year 1); and 334 comparison group individuals, of whom 222 had been surveyed in Year 1, and 112 that had not, and had been identified via the GEM 2016 survey.

Of the 664 individuals surveyed, 85% were still involved with the business that they were seeking to or had started up from previous surveys (the Year 1 evaluation survey for the beneficiary group and old comparison group, and the GEM 2015 survey for the new comparison group). The overall level of involvement was consistent between the beneficiary and comparison groups at 86% and 83% respectively.

For the around 15% of surveyed individuals no longer involved in the relevant business (in aggregate, 41 individuals in the beneficiary group and 49 individuals in the comparison group from the Year 2 survey¹⁸) a wide range of factors were identified to explain this, including a mix of personal and business related factors. 'Personal issues' was the single most commonly cited reason in the survey, identified by 12 individuals in each of the groups. Business failure (i.e. the business had started-up but failed) was identified by six individuals in each of the groups as the reason why they were no longer involved in the business. Other explanations included being offered another job/employment opportunity and not having enough time to concentrate on the business given other commitments.

Business start-up

For those individuals that remained involved in the business, the start-up rate¹⁹ for the beneficiary group was 97%, and for the comparison group it was 85%. The start-up rate data for the beneficiary group excludes those individuals that already had a business at the point that they approached the programme (n=91). The potential effects of the programme on the start-up rate are considered in Section 4.

Business progress

Table 3-1 below sets out a range of data on the progress and performance of businesses started-up by individuals in the beneficiary and comparison group. The econometric analysis, which is described in Section 4, considered the evidence on whether the differences between the two groups were driven by programme participation or other factors. It must be noted, in considering the evidence, that the businesses covered by the evaluation remain young with an average age of around two years old (with none of the businesses having started before January 2012). However, in descriptive terms the key points to note include:

¹⁸ 12 individuals indicated in the Year 1 survey they were no longer involved in the business; five in the beneficiary group, seven in the comparison group.

¹⁹ Start-up is defined as a business that has incurred expenditure and/or generated income.

- The business survival rates were high, with around nine out of ten businesses that have started-up still trading by the point of the Year 2 survey.
- Businesses in the comparison group were on average larger than those in the beneficiary group in terms of both turnover and employment (including full-time employment), although the scale of businesses remained modest in terms of employment, with nearly all businesses micro-businesses (with 1-9 employees) in both groups. The employment data set out in the table are averages (mean) across the survey cohorts: Section 4 considers the evidence on change in employment, both in terms of whether businesses have grown their employment at all, and the scale of this change.
- Businesses in the beneficiary group did, on average, grow their sales faster from Year 1 to Year 2 than the comparison group, relative to their turnover in Year 1. The percentage growth between 2015 and 2016 appears to be much higher for beneficiaries, though it must be noted that this was on a relatively low base of turnover in 2015 (compared to the comparison group). The beneficiary group also reported higher expected levels of growth in the future, with an average turnover increase of 65% from 2016 to 2017 in the beneficiary group, compared to 23% in the comparison group (although the forecast 2017 average turnover remained higher for the comparison group).
- Over one-fifth of individuals in the beneficiary group, and 16% in the comparison group reported that their business had introduced a 'new to the market innovation' (this difference between the two groups is not significant at the 5% level²⁰).
- Approaching a third of businesses were exporting (that is, reporting sales outside of the UK) in both groups. However, it was evident that for a high number of businesses started-up by individuals in the beneficiary and comparison groups, exporting accounts for a small proportion of their turnover. Just 9% of beneficiaries and 14% of comparison group individuals indicated that exports accounted for over a quarter of the sales of their business (this difference between the two groups is not significant at the 5% level²¹).

As suggested in the table below, it is worth noting that the businesses started-up/developed by the beneficiary group were more likely to be staffed by part-time rather than full-time employees, relative to the comparison group. The survey evidence indicated that full-time employees accounted for 52% of all current employment in businesses started-up developed by individuals in the beneficiary group, compared to 78% in the comparison group.²²

²⁰ Two-sided t-test

²¹ Two-sided t-test

²² This data includes all individuals that reported employment data. One individual in the comparison group reported total current employment of 300, if this individual is excluded from the analysis the proportion of full-time employment falls to 72%.

Table 3-1: Descriptive statistics on business progress and performance

| | Beneficiary group | Comparison group |
|--|--------------------------|-------------------------|
| Business survival | | |
| Business survival (of those that have started) | 87% (N=321) | 90% (N=250) |
| Turnover | | |
| Average turnover in 2015 | £52,582 (N=212) | £122,693 (N=150) |
| Average turnover in 2016 | £99,764 (N=216) | £160,929 (N=174) |
| Average growth in turnover from 2015-2016 | 133% (N=167) | 67% (N=126) |
| Forecast average turnover in 2017 | £165,097 (N=201) | £196,668 (N=156) |
| Employment | | |
| Average employment in 2015 | 1.2 (N=255) | 2.3 (N=177) |
| Average employment in 2016 | 1.2 (N=252) | 3.7 (N=202) |
| Average full-time employment in 2015 | 0.6 (N=255) | 1.6 (N=177) |
| Average full-time employment in 2016 | 0.7 (N=251) | 2.9 (N=202) |
| Forecast average employment in 2017 | 2.1 (N=245) | 4.9 (N=194) |
| Forecast average full-time employment in 2017 | 1.4 (N=244) | 3.8 |
| Innovation and exporting | | |
| Have introduced a new to the market innovation | 21% (N=251) | 16% (N=201) |
| Export (any % of sales) | 29% (N=225) | 26% (N=183) |
| Export (>10% of sales) | 13% (N=225) | 16% (N=183) |
| Export (>25% of sales) | 9% (N=225) | 14% (N=183) |

Source: Year 2 survey

Individual progress

Individuals still involved in the business

For those individuals still involved in the business, the survey indicated that a significant proportion in both the beneficiary and comparison groups were involved in other forms of employment/education/training. As shown in Table 3-2 36% of individuals in the beneficiary group were involved in other forms of employment/education/training, and 48% of the comparison group.

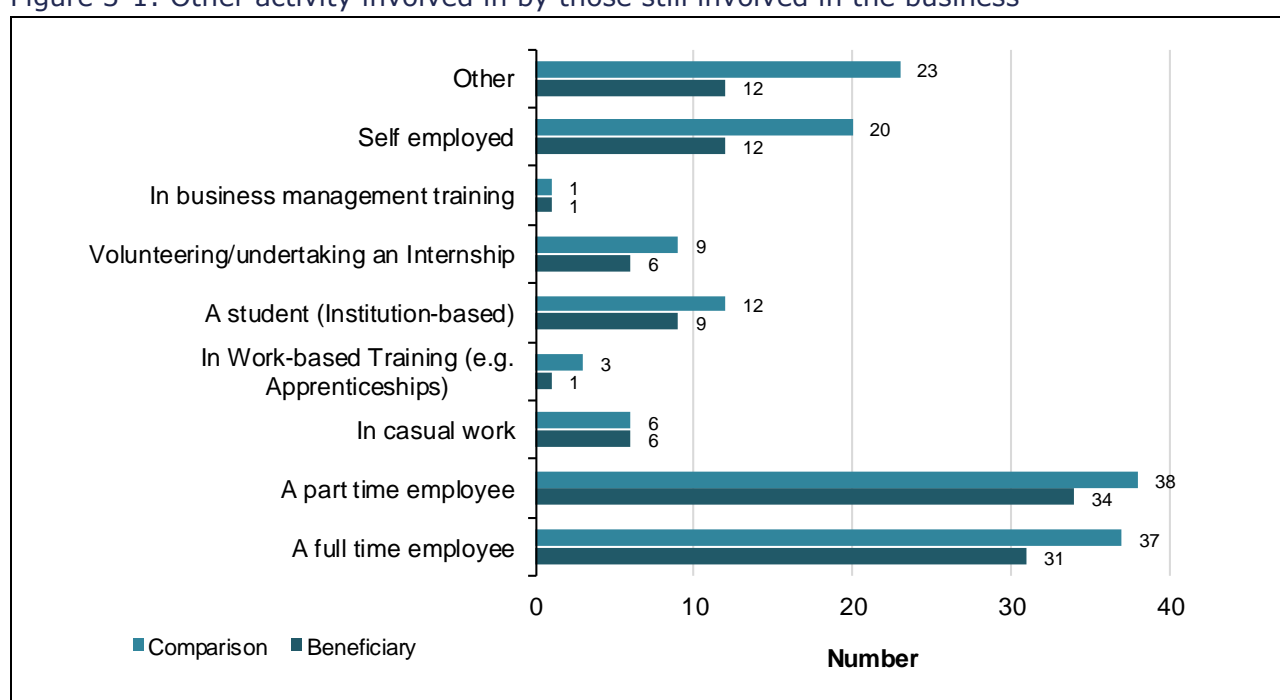
This data suggests that a higher proportion of the beneficiary group were focused solely on the development of their business, compared to the comparison group who were more likely to be involved in other employment/education/training activities.

Table 3-2: Involvement in other forms of activity further to the relevant business

| | Beneficiary group (n=284) | Comparison group (n=278) |
|--|------------------------------|-----------------------------|
| Yes (i.e. involved in other activities) | 36% | 48% |
| No (i.e. not involved in other activities) | 63% | 52% |

Source: Year 2 survey

Those individuals involved in other employment/education/training activities most commonly reported they had a full-time or part-time position with a separate employer, as set out in Figure 3-1 over the page. However, it is worth noting that 12 beneficiaries (of the 103 that indicated they were involved in other activity) stated that they were self-employed, alongside running the business that was supported by the programme.²³

Figure 3-1: Other activity involved in by those still involved in the business²⁴

Source: Year 2 survey

The survey also indicated that those beneficiaries that were engaged in other activity spent less time on this other activity than their equivalents in the comparison group. As shown in Table 3-3, 54% of beneficiaries that were engaged in other activity stated that the business takes up more of their time, compared to 40% amongst the comparison group (significant at 5%)²⁵.

²³ Survey respondents could identify more than one other activity: 9 beneficiaries, and 12 comparison group members identified being involved in two other activities, and 2 of the comparison group identified being involved in three other activities.

²⁴ The other category covered a wide range of roles. Examples included being involved in voluntary work, holding company directorships, property development/rental, and teaching/lecturing roles.

²⁵ Two-sided t-test at 5%

Table 3-3: Balance of time on the business and other activity (for those engaged in other activity)

| | Beneficiary group (n=103) | Comparison group (n=133) |
|--|--------------------------------------|-------------------------------------|
| The business takes up more time | 54% | 40% |
| Other employment/ economic activity takes up more time | 43% | 55% |
| Can't recall | 3% | 5% |

Source: Year 2 survey

Within these overall headlines, there are likely to be complex and varied ways in which the business and other activities are related, and so in reading these findings this should be borne in mind. For example, in some cases it may be that individuals were focused on other activities because their business was not performing well, or it may be that their business was not performing well because they are focused on other activities.

Individuals no longer involved in the business

For those individuals no longer involved in the business, the majority have not, and do not intend to start another business: 75% of beneficiaries surveyed (n=48) and 66% of the comparison group (n=56). A modest number (12 across both groups) have started-up another business, and 18 are thinking about starting up another business.

Where individuals reported they had not and were not considering starting-up another business, the most common reasons cited (with respondents able to identify more than one) amongst both groups were a lack of finance, personal issues, and good employment opportunities being available. This last explanation appeared to be more evident for the comparison group individuals (identified by 12 of the 37 that have not started/considered another business), than for those in the beneficiary group (5 of the 36), although given the small sample sizes these data must be treated with caution.

The employment status at the time of the Year 2 survey for those individuals no longer involved in the business is set out below: it is worth noting that the rate of employment amongst the comparison group was notably higher than amongst the beneficiary group, and in turn unemployment was higher amongst beneficiaries.

Table 3-4: Employment status of individuals no longer involved in the business

| | Beneficiary group (n=46) | Comparison group (n=56) |
|---------------|-------------------------------------|------------------------------------|
| Employed | 48% | 68% |
| Unemployed | 28% | 13% |
| Self-employed | 15% | 7% |
| Other | 9% | 13% |

Source: Year 2 survey

The employment status of these beneficiary group and comparison group individuals before start-up (that is, when the first gave serious thought to starting up the business), and after their involvement with the business are set out below. Whilst the data may suggest a positive movement amongst the beneficiary group (with 28% of the 46 now unemployed, compared to 43% before start-up, and 48% now employed compared to 37% before start-up), these changes are not statistically significant at the 5% level. A similar trend was witnessed for the comparison group, with a broadly equivalent increase in the proportion of individuals in employment. The data do not indicate that the programme has had an effect at this stage in improving the employment status of individuals that are no longer involved with their business, relative to the comparison group. However, the data are based on small sample sizes, and this issue will need to be revisited in future years as (we would expect) the number of individuals no longer involved with the business started-up via the programme increases.

Table 3-5: Employment status before start-up (when first gave serious thought to starting a business) and currently (now no longer involved with the business)

| | Beneficiary group (n=46) | | Comparison group (n=56) | |
|---------------|---------------------------------|----------------|--------------------------------|----------------|
| | Before start-up | Current | Before start-up | Current |
| Employed | 37% | 48% | 59% | 68% |
| Unemployed | 43% | 28% | 16% | 13% |
| Self-employed | 13% | 15% | 13% | 7% |
| Other | 7% | 9% | 13% | 13% |

Source: Year 1 and Year 2 surveys

For those individuals that identified in the Year 2 survey they were no longer involved in the business²⁶, and those individuals that indicated their business did start-up but has now stopped trading in the Year 2 survey, the evidence suggested that the involvement with the business has made around a third of individuals in both groups *more* likely to choose enterprise as a career option in the future. However, in some cases it has also led to individuals being less likely to choose enterprise as a career option; the difference between the two groups (15% for the beneficiary group and 24% for the comparison group) is not statistically significant on this measure (or the other data in Table 3-6).

²⁶ This excludes those individuals that stated in the Year 1 survey they were no longer involved in the business.

Table 3-6: Effects of the business experience on perceptions of enterprise as a career choice

| | Beneficiary group (n=52) | Comparison group (n=51) |
|--|-------------------------------------|------------------------------------|
| It has made you more likely to choose enterprise as a career option | 35% | 35% |
| It has made no difference to whether you will choose enterprise as a career option | 48% | 41% |
| It has made you less likely to choose enterprise as a career option | 15% | 24% |
| Other | 2% | 0% |

Source: Year 2 Beneficiary and comparison group surveys

Access to business finance

External finance

The Year 2 survey sought to gather evidence on access to finance issues for those individuals that have started-up a business and were continuing to trade at the time of the survey, specifically, identifying whether their businesses had secured external finance in the 12 months prior to completing the survey. These data may be an important factor in understanding business performance. Given the constraints on the survey length, there was not an opportunity to probe on unsuccessful applications for external finance or those that may be 'discouraged borrowers'.

Securing external finance

As set out in Table 3-7, the proportion of individuals in the beneficiary group that secured external finance was higher than the comparison group, at 27% compared to 19% (significant at the 5% level). However, for both groups the majority of individuals surveyed (over 70%) reported that they had not secured external finance for their business over the past 12 months.

Table 3-7: Proportion of individuals with trading businesses securing external finance in the past 12 months

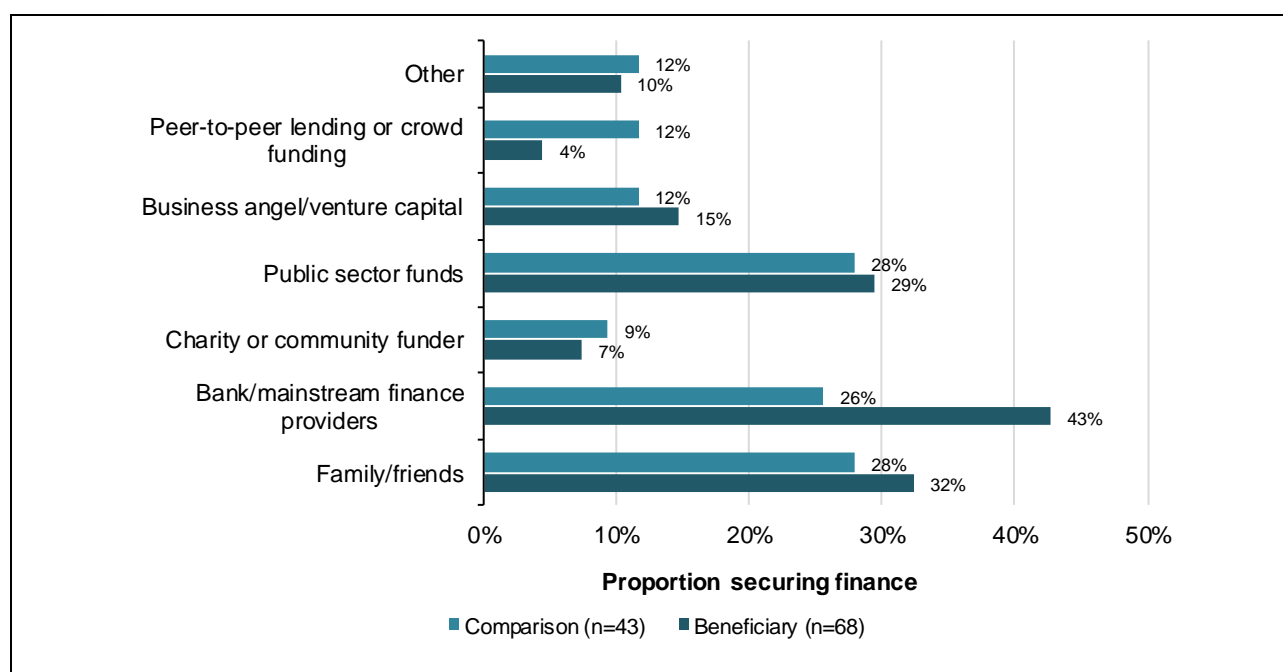
| | Beneficiary group (n=255) | Comparison group (n=221) |
|--|--------------------------------------|-------------------------------------|
| Yes – secured external finance over the past 12 months | 27% | 19% |
| No – have not secured external finance over the past 12 months | 73% | 80% |
| Don't know | 0% | 1% |

Source: Year 2 Beneficiary and comparison group surveys

Providing finance for working capital/cash flow (29 beneficiaries and 13 comparison group individuals), and acquiring capital equipment/vehicles (26 beneficiaries and 14 comparison group individuals) were the most common reasons why individuals secured external finance for their business over the previous 12 months.

As shown in Figure 3-2, approaching half (43%) of the beneficiaries that secured external finance for their business (n=68) sourced the finance from banks or other mainstream finance providers. Individuals in the comparison group were less likely to have secured finance from banks (26% of those that secured external finance). Finance from family/friends and the public sector were also common amongst both the beneficiary and comparison group. It is also worth noting that 15% of individuals in the beneficiary group that secured external finance over the 12 months prior to the survey (n=68) secured this finance from business angels or venture capitalists. Whilst in aggregate terms this is a modest number (10 from the overall survey cohort of 330), and no higher statistically than the proportion in the comparison group, this does suggest that the programme is supporting individuals with businesses that have significant growth potential (as perceived by business angels/venture capitalists).

Figure 3-2: Sources of external finance secured in the past 12 months by the beneficiary and comparison group – those that secured finance



Source: Year 2 survey

The average (mean) value of external finance secured by the beneficiary group (of those that did secure external finance) was around £38,000. As shown in Table 3-8, the average value of external finance secured for the comparison group (of those that did secure external finance) was significantly higher, at approaching £200k. However, the results are influenced heavily by six respondents (five in the comparison group and one in the beneficiary group) that reported securing very significant levels of investment from venture capitalists/business angels or banks, in each case reporting external investment of £500k or more. If these six respondents are removed from the analysis, the mean for the comparison group is broadly consistent with the beneficiary group, at around £30,000 in both cases. However, the median value of external finance secured by those individuals in the beneficiary group that secured finance at £10,000 was below the comparison group value of £15,000.

Table 3-8: Average external finance secured in the past 12 months (for those that secured finance)²⁷

| | Beneficiary group (n=65) | Comparison group (n=39) |
|--|-------------------------------------|------------------------------------|
| Average total funds secured (all securing finance) | £37, 635 | £219,320 |
| Average total funds secured (excluding 'top 6'*) | £29,629 (n=64) | £30,250 (n=34) |
| Median funds secured (all securing finance) | £10,000 | £15,000 |
| Median total funds secured (excluding 'top 6'*) | £10,000 | £14,350 |

Source: Year 2 survey * The five comparison group individuals that reported securing external investment of £1 million or more, and the one beneficiary group individual that identified securing investment of over £500k

Unmet demand for finance – evidence

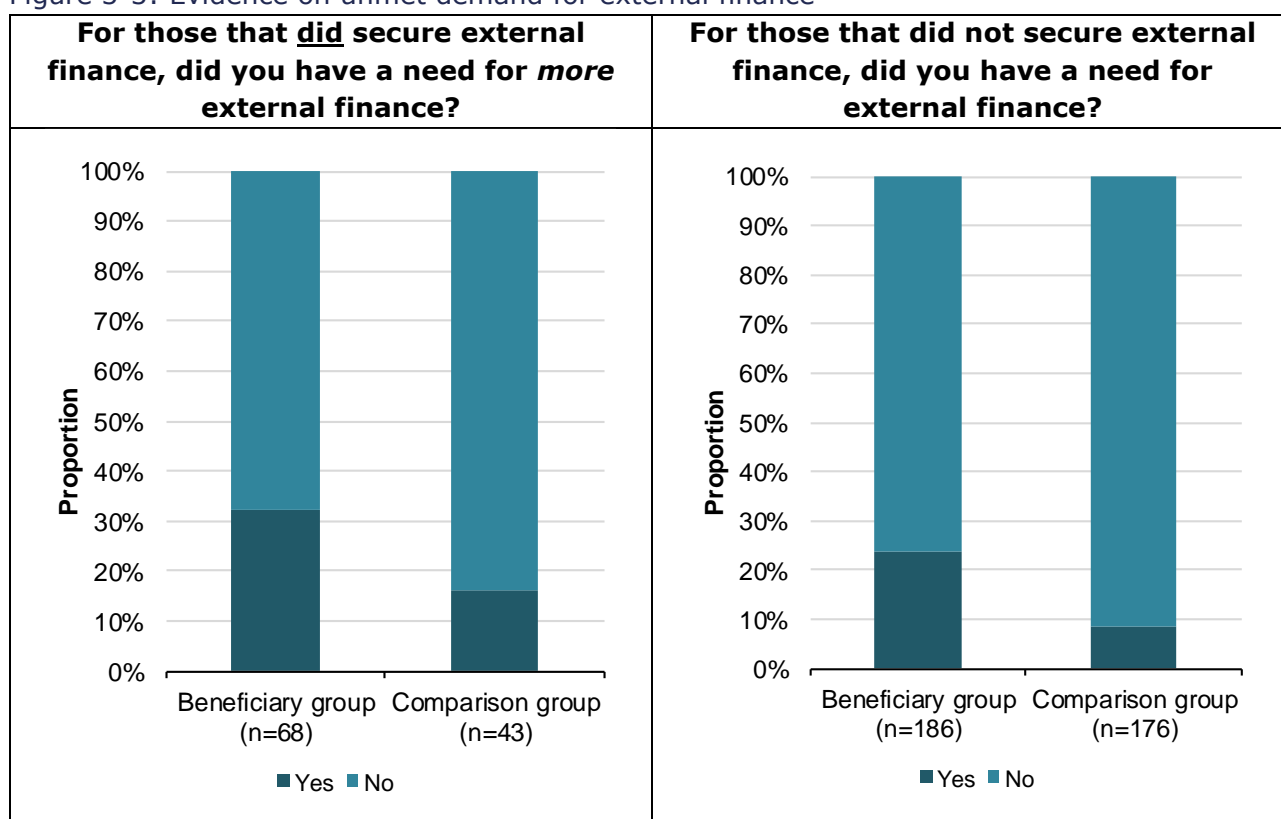
The Year 2 survey also sought to identify whether individuals needed external finance, or more external finance, than they secured – providing evidence of whether individuals may be 'discouraged borrowers', defined as those with a declared external financing need who for some reason do not apply for funding, or whether they have been unsuccessful in their applications.

As set out in Figure 3-3, the survey indicated there was a level of unmet demand for finance over the past 12 months, particularly amongst the beneficiary group. For those in the beneficiary group that did secure external finance (n=68), approaching a third (32%) indicated that they required *more* finance over this period than they secured, compared to 16% in the comparison group. The trend was consistent for those individuals that did not secure finance: for those in the beneficiary group that did not secure any external finance (n=186), a quarter indicated that they did have a need for finance, compared to 9% in the comparison group.

The average level of this 'unmet' finance (covering both where more external was needed, and where any finance was needed) was around £50k for the beneficiary group, and £94k for the comparison group. However, the scale varied considerably, with the comparison group data driven by a small number of individuals indicating a significant level of unmet demand for finance, including five (of the 22 that identified unmet finance) of over £100k. For the beneficiary group, the level of unmet finance was most commonly under £50k.

²⁷ The data exclude the seven respondents that indicated they had secured finance but did not provide an indication of scale. The data also combine actual values, and where not provided, the mid-points of ranges identified in the survey.

Figure 3-3: Evidence on unmet demand for external finance



Source: Year 2 survey

Unmet demand for finance – explanation

For those beneficiary group individuals that did not secure external finance, but needed it (n=44), the most common reason why they did not secure external finance was that they did not apply (identified by 21 of the 44). Not wanting to take on additional risk was the most common reason for why individuals did not apply for finance (identified by 10 of the 21 beneficiaries), with expectation of rejection and the perception that the finance would be too expensive also identified by a number of beneficiaries. Of the 44 beneficiaries that did not secure external finance over the past 12 months but needed it, 12 (i.e. around a quarter) indicated that they applied unsuccessfully for finance, of which most (10) indicated they applied unsuccessfully to a bank or mainstream finance provider. Equivalent data has not been reported for the comparison group owing to the small sample size (n=15).

Whilst the overall sample sizes here are modest, and should be treated with caution, the survey data did suggest that access to finance for follow-on funding from the programme has been an issue for beneficiaries. Of the 255 beneficiaries surveyed with a business that was trading, 44 (17%) indicated that they required external finance over the past 12 months to grow their business but did not access this finance. The reasons for this varied – around half did not apply, and around quarter applied unsuccessfully.

Use of own finance

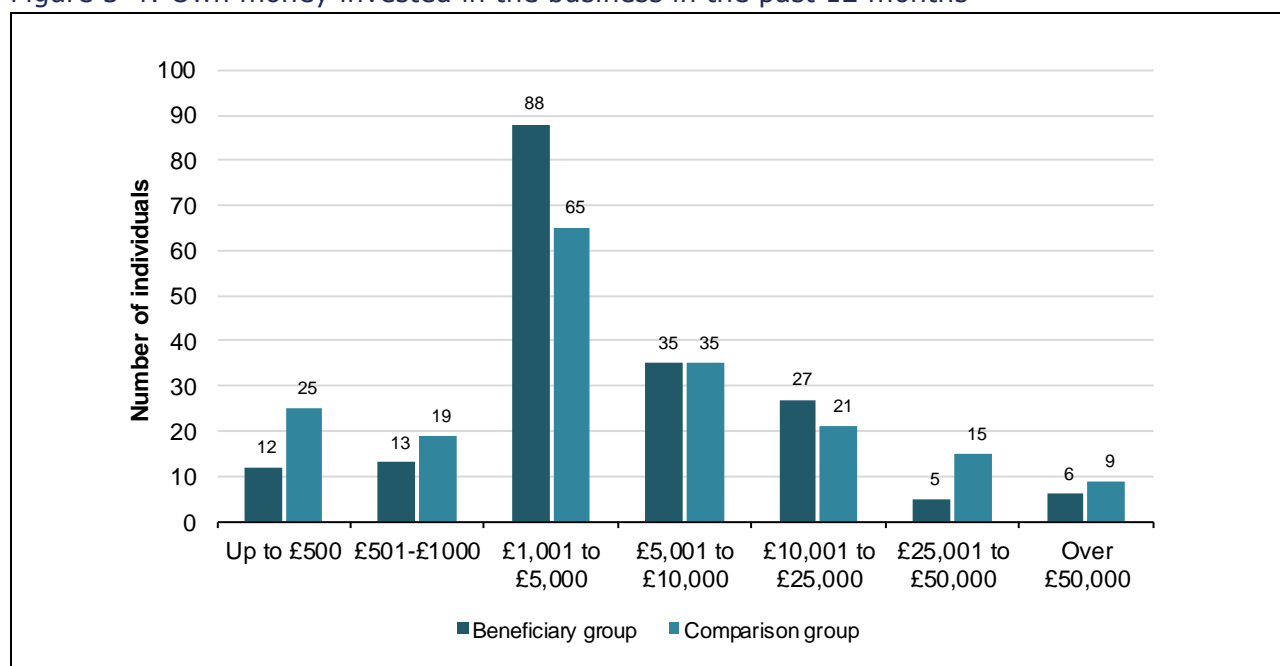
The data above suggested that the beneficiary group was more likely to access external finance, but that unmet demand for external finance was also more common in the beneficiary group.

This may be explained in part by the ability of comparison group individuals to use substantive volumes of their own finance to support the business.

The survey indicated that the proportion of individuals that invested their own money in the business over the past 12 months was consistent between the two groups, at 62%. This was lower than the equivalent data in the Year 1 report, where the proportion of individuals that had invested their own money in the business was 85% for the beneficiary group, and 76% for the comparison group. This reduction is to be expected given this Year 1 investment focused principally on starting-up the business, and where fewer businesses were generating revenue that could be re-invested.

However, the Year 2 survey data indicated that the average investment of personal funds by individuals in the comparison group was around £24k, compared to £14k amongst the beneficiary group.²⁸ These data included three individuals that reported very significant personal investment of at least £700k (two in the comparison group, one in the beneficiary group). When these three individuals were excluded, the average for the comparison group at £16k remained above the beneficiary group at £10k. However, there was a considerable range in the scale of personal finance invested in the business, as set out in Figure 3-4 below. For both the beneficiary and comparison groups, personal investment of between £1k and £5k was most common.

Figure 3-4: Own money invested in the business in the past 12 months



Source: Year 2 survey

Indeed, the data suggested that the scale of personal investment over the past 12 months was broadly consistent across the two groups for those individuals that invested up to £10k in their business. However, for around a quarter of the survey cohort (around 90 from the combined

²⁸ This is consistent with the data from year 1 where those individuals in the comparison that had invested their own money invested more on average than the beneficiary group.

relevant sample of 375) that were able to invest over £10k, individuals in the comparison group invested considerably more. The data are set out in Table 3-9 below.

Table 3-9: Average value of own finance invested by range

| | Beneficiary group | Comparison group |
|---|-------------------|------------------|
| Average for maximum £10k | 4,015 (n=148) | 3,604 (n=144) |
| Average for over £10k (all) | 50,474 (n=39) | 83,917 (n=48) |
| Average for over £10k (excluding £700k+ outliers) | 33,381 (n=38) | 54,957 (n=46) |

Source: Year 2 survey

Other non-financial support

Approaching a third of individuals surveyed in Year 2 indicated they had received external non-financial support/advice to develop their business over the past 12 months: 31% for the beneficiary group, and 32% for the comparison group (note, for the beneficiary group this was external to the Start Up Loans programme). The most common source of non-financial support/advice for both groups was informal networks, such as families and friends (identified by approaching three-quarters of both groups). Accountants and business consultants/advisors were also commonly identified as sources of support.

The receipt of non-financial support (which for the beneficiary group was support external to the Start Up Loans programme) has been included as a variable in the econometric analysis discussed later in the report.

Loan repayment

Start Up Loans is not expected to provide a commercial return to Government. However, as a loan-based rather than grant-based programme, it is expected that the finance is repaid (within a maximum five-year period), plus interest (at 6%). SULCo is responsible for overall management of the loan book, and recording levels of repayment and arrears.

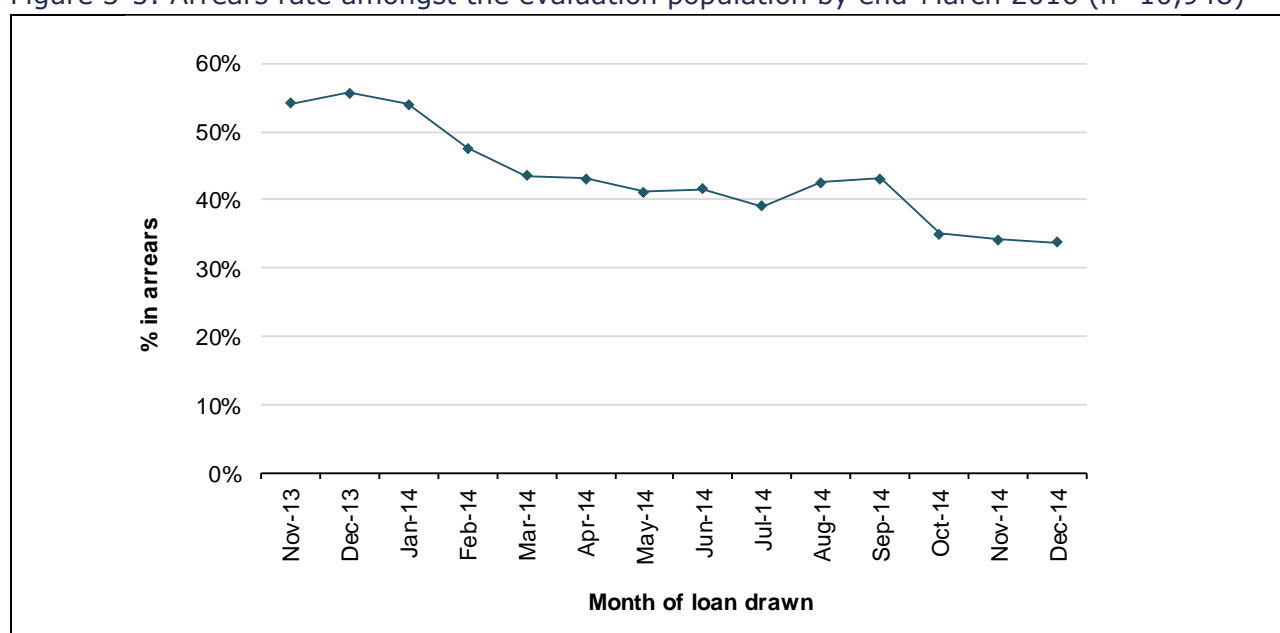
This said, it is important to recognise that some level of arrears, and subsequently default is both reasonable and desirable for an intervention such as Start Up Loans. A low level of arrears/default would indicate low finance additionality i.e. too much risk aversion in the provision of loans, with the programme acting in a similar way to mainstream finance providers, and meaning that the programme was not meeting its intent to provide finance for start-up to those individuals who would otherwise not have accessed this finance from other sources. Balancing these objectives – of providing a reasonable and efficient level of repayment, whilst ensuring that the programme continues to meet its core objective to provide finance to those individuals that would otherwise not get access to finance owing to market failure in the supply of finance – continues to be key to the programme.

... amongst the evaluation population

Data provided to the evaluation team by SULCo indicated that, at the end of March 2016, 44% of the c.11,000 loans drawn down over the evaluation period (November 2013 to December 2014), were identified by SULCo as being in arrears (i.e. an expected loan re-payment had been missed in that month i.e. March 2016). The rate of arrears was consistent by age group (45% and 44% for those Aged 18-30 and Aged 31+ respectively), and broadly consistent by loan value, although those with a loan under £3k were slightly *less* likely to be in arrears, at 39%, compared to 47% for those with loans from £3k to £8k, and 43% for those with loans over £8k.²⁹

The proportion of loans in arrears at the end of March 2016 (as defined by SULCo) was higher for loans drawn down earlier in the evaluation period, as shown in the Figure below. Over half of the loans drawn down in November and December 2013 were in arrears at the end of March 2016, with the proportion of loans in arrears at this point declining for loans drawn down later in the evaluation period i.e. the rate of arrears increases over time. These data were consistent with evidence in the Year 1 report, and to a large degree is likely to reflect the timing of support, i.e. we would expect that older loans are more likely to be in arrears reflecting processes of enterprise creation and (potential) closure.

Figure 3-5: Arrears rate amongst the evaluation population by end-March 2016 (n=10,948)



Source: SULCo monitoring data as at March 2016

The data provided to the evaluators by SULCo identified the number of monthly payments missed by individuals (where relevant). This is important given that some individuals may have missed a payment in a particular month (i.e. in March 2016 when the data refer to), but if this is addressed promptly, the overall rate of arrears at 44% may be misleading, and not reflect accurately the default rate or the expected loss on capital lent. However, as set out in (A) in Table 3-10 below, over half of the loans that were in arrears in March 2016 (n=4752) involved

²⁹ All the data presented in the report related to arrears refer to the number of loans, *not* the value of loans.

12 or more payments, and just 6% of the loans in arrears involved a single missed payment. As shown in (B), the number of loans in arrears with 12 or more missed payments accounted for 24% of *all* loans drawn-down over the evaluation period (n=10948). As such, the data do indicate that for this cohort specifically, the overall rate of arrears at the end of March 2016 is likely to reflect the long-run experience.

Table 3-10: Number of missed payments by those in arrears in the evaluation population

| | (A) Proportion of loans in arrears in March 2016 with one-to-twelve or more missed payments (n=4752) | (B) Proportion of all loans that were in arrears in March 2016 with one-to-twelve or more missed payments (n=10948) |
|----------------------------|---|--|
| One missed payment | 6% | 3% |
| Two/three missed payments | 10% | 5% |
| Four/five missed payments | 8% | 3% |
| 6-11 missed payments | 22% | 10% |
| 12 or more misses payments | 54% | 24% |

Source: SULCo monitoring data as at March 2016

The Year 1 report found that the rate of arrears was linked to the take-up of capital repayment holidays, and particularly 12-month capital repayment holiday periods: in March 2015, 44% of beneficiaries drawing down loans over the evaluation period with a 12-month capital repayment holiday periods were identified by SULCo as being in arrears at that point, compared to 30% of individuals with no capital repayment holiday. This trend held true one year on – as set out below, well over half of individuals with a 12 months capital repayment holiday period were in arrears by March 2016. It is important to note that the evaluators understand that capital repayment holiday periods are no longer offered by the programme; the data from the evaluation period therefore reflect an earlier phase in the delivery of the programme.

Table 3-11: Arrears rate by capital repayment holiday

| | Proportion of beneficiaries in arrears |
|--|---|
| None (n=6751) | 42% |
| 3 months (n=991) | 50% |
| 6 months/9 months (n=2003) | 42% |
| 12 months (n=1203) | 57% |
| <i>Summary - no capital repayment (n=6751)</i> | 42% |
| <i>Summary - capital repayment (n=4197)</i> | 48% |

Source: SULCo monitoring data as at March 2016

... amongst the survey cohort

By March 2016, 24% of beneficiaries in the Year 2 survey cohort were in arrears. A lower level of arrears amongst the survey cohort than the wider evaluation population (i.e. 24% for the

survey cohort compared to 44% for the evaluation population) is not unexpected (and consistent with the data in Year 1) for two reasons.

First, the survey cohort was based on individuals that drew down their loan in the June-December 2014 period (i.e. not loans drawn down between November 2013 and May 2014), and as we have seen above, the arrears rate was lower for loans drawn down over this period than the full evaluation period. Specifically, the arrears rate for all loans drawn down over the June-December 2014 period (n=4,959), was 39%, five percentage points lower than for the November 2013 to December 2014 period as a whole.

Second, as discussed in Section 2, we may expect that those individuals in arrears would be less likely to respond to the survey related to the programme. Section 5 considers the evidence on the factors that may be driving loan repayment status.

Section 4: Evidence on programme effectiveness

Key findings

- The Year 2 econometric analysis has reaffirmed the headline finding from the Year 1 report, namely that the programme has had a significant and positive effect on the start rate. Therefore, the evidence from the evaluation indicates that the SUL programme has resulted in an increase in the number of business starts across the UK.
- This finding was corroborated by the self-reported assessment of beneficiaries. Over one-third (35%) of beneficiaries surveyed indicated that they would not have started their business at all without support from the programme. By contrast, only 14% indicated that their business would have started at the same speed, scale and quality without support from the programme.
- The econometric analysis in Year 2 of the evaluation has also found emerging evidence that the programme has had an effect on business outcomes. A positive and significant effect of the programme was found on whether a business has increased its sales from last year to the current year, and whether a business has increased its employment from last year to the current year (both for total employment and full-time employment). This means that start-ups supported by the SUL programme were more likely to increase their sales or employment than start-ups that were not supported by the programme.
- These effects on business outcomes were restricted to *whether* a business had grown its sales or employment, and there was no evidence at this stage of an effect on the absolute growth in sales or employment (with business size controlled for in the analysis). This may be due to the early stages of development of these companies, which aligns with findings covered in Section 6 that indicate that a significant proportion of turnover growth is forecast for future years.
- There was no evidence in the analysis of a link between the programme and personal development outcomes, such as business confidence, skills or personal confidence.

Coverage

This section sets out the evidence at this interim stage of the evaluation on the effects of the programme on business and personal development outcomes, drawing on the econometric analysis and the 'self-reported' evidence from survey beneficiaries. A particular focus of the Year 2 analysis was to revisit the evidence on the effect on start-up rates, and to assess the evidence on the effects of the programme on business performance in terms of early sales and employment growth. The analysis also included consideration of other business and personal development outcomes to provide a broader perspective on the potential effects of the programme. Where the focus is on the econometric analysis, the section focuses on presenting the key findings. The technicalities of the specification of the models is discussed in more detail in Annex A.

To complement the quantitative analysis from the econometric and self-reported analysis, this section sets out the evidence from the qualitative research, which draws on the case studies and survey of Delivery Partners.

Business outcomes

Evidence on start-up and speed of start-up

Econometric analysis

The Year 1 report evidenced a positive link between the support received through the Start Up Loans programme and the likelihood of starting a business. One year on, the updated analysis confirms this link, indicating that the SUL programme has increased the likelihood of starting a business³⁰ (see Table 4-1). More specifically, the econometric results indicate that the marginal effect associated with being a SUL beneficiary increases the probability that an individual will start their business by 13%. This also corroborates the descriptive analysis set out in Section 3. Individuals across the whole cohort (i.e. covering both the beneficiary and comparison groups) that are based in London have a lower likelihood of starting their business – consistent with the results reported in the Year 1 analysis³¹. None of the other explanatory variables were found to be statistically associated with the start-rate in Year 2.

The results of the analysis also showed that, where a business has started, the programme has had no impact on the speed of start-up³² (Table 4-1). It is important to note that beneficiaries that had started their businesses prior to joining the SUL programme are excluded from this analysis. For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-5.

³⁰ A business is defined as having started when expenditure has been incurred, or income has been received.

³¹ Note it is not within the remit of the evaluation to test the factors influencing start-up rates in different regions, and there are likely to be a wide variety of unobserved factors influencing rates of start-up levels in different regions e.g. cost of sites and premises, levels of competition, labour market conditions and demand.

³² Defined as the time elapsed between when the business idea was conceived and the point of the first income secured or expenditure incurred, whichever is earliest.

Table 4-1: Summary of findings of econometric analysis on business start-up outcomes

| Dependent variable | Start-rate (N=466) | Speed (N=331) |
|--|---------------------------|----------------------|
| Independent variables | Result | Result |
| Start Up Loans | ++ | <> |
| Personal characteristics | | |
| Owner age | <> | <> |
| Owner age squared | <> | <> |
| Previous business experience | <> | <> |
| Degree | <> | <> |
| Female | <> | <> |
| Unemployed (pre-start) | <> | <> |
| Business characteristics | | |
| Business age | | |
| Business age squared | | |
| Multiple owners | <> | <> |
| Strategy characteristics | | |
| Business plan (pre-start) | | ++ |
| Business plan (at any time) | | |
| Non-financial support | | - |
| SUL mentoring | | <> |
| INT: SUL mentoring * non-financial support | | <> |
| External finance | | |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Independent variables for sector and geography have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

It is notable that very few of the individuals surveyed had not started up their business by the time of the Year 2 analysis, particularly for the SUL beneficiary group (start-up rates at year 2 were 97% for the beneficiary group and 85% for the comparison group). This feature precluded any repeat analysis of the effect of writing a business plan on the likelihood of starting-up³³, or any further analysis on the interaction between writing a business plan and the support received by Start Up Loans in this process³⁴.

With respect to the speed of start-up, the findings suggest that individuals starting services-based business (classified under SIC codes J-N) and those that approached the programme with an existing business plan tended to start faster. Further, those individuals receiving non-financial support (excluding support received through the programme) tended to take longer to start their businesses. When comparing the experience of the beneficiary and comparison groups, the

³³ As the few firms that had not started-up also had a number of missing data points, it was not possible to include them in the sample analysed. The result is that it becomes impossible to disentangle the relationship between the start-rate and SUL-specific support (including the pre-application support made available to beneficiaries), as, simply, all beneficiaries in the sample had started-up.

³⁴ The SUL programme provides pre-application support and requires that a business plan is submitted as part of the loan application, and so the process of requiring a business plan may be important in the effect on the start rate.

econometric findings were unable to evidence a relationship between Start Up Loans and the speeding up or slowing down of the start-up process. It may be the case that some businesses were able to start faster as a result of the support received through the programme (as suggested in the self-reported analysis – see below), while others were prompted to invest more time into researching their market and preparing a more thorough business plan, thereby extending the start-up phase. Moreover, some individuals may have had the idea for their business for some time before approaching the programme, which would result in a long start up period.

There was evidence from the case study research that the duration of the pre-application support may have forced some entrepreneurs to spend more time in the planning stage. Indeed, this was identified as a deterrent for certain entrepreneurs who wanted to move forward with their business more quickly, and so one Delivery Provider developed a 'fast track' route in response to this issue.

Self-reported analysis

Consistent with the approach in Year 1, the analysis has considered the self-reported evidence provided by beneficiaries to offer a second perspective on the effect of the programme on business start-up. Beneficiaries that started a business (i.e. incurred expenditure or received income) following support from Start Up Loans were asked in the survey to provide a view on what would have happened if they had not been supported by the programme. This is evidence on so-called 'self-reported deadweight', one of the core components of additionality.

The findings for those that started their business following engagement with the SUL programme from the Year 2 survey, and by way of comparison, the Year 1 survey from the larger cohort of respondents, are set out below. The findings indicated that perceptions on what would have happened without the programme have remained consistent. In the surveys from both years, around one-third of beneficiaries stated that their business would not have been started-up without the programme, reflecting full additionality. Moreover, a similar proportion in both years (13% and 14% in Years 1 and 2 respectively) reported full deadweight, that is, in their view, the business would have started-up in any case and at the same time, scale and quality without the programme.³⁵

³⁵ For those individuals that completed the survey in Year 1, but did not complete the survey in Year 2, the results were broadly consistent, albeit slightly less positive in terms of full non-deadweight, with 25% reporting full non-deadweight and 14% reporting full deadweight. This may suggest some slight response bias in the Year 2 results, with those with a more positive experience of the programme (i.e. full non-deadweight) more likely to respond to the Year 2 survey.

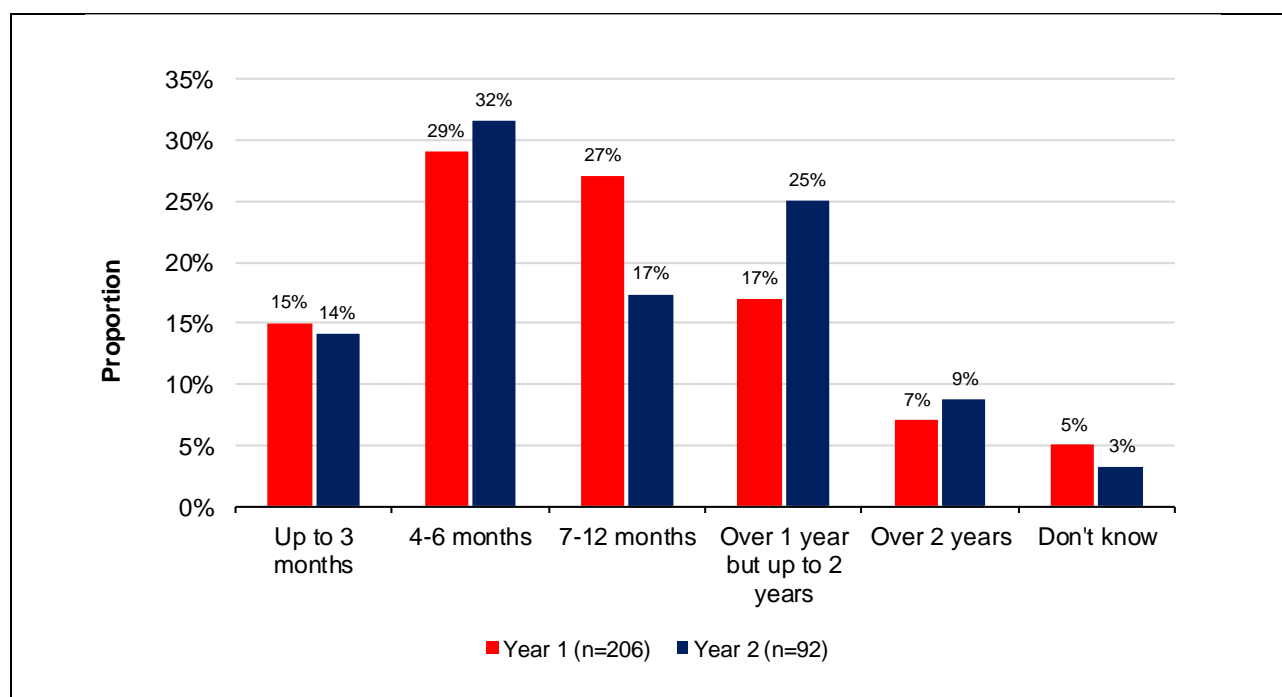
Table 4-2: Response to 'In your view, without your involvement with the Start Up Loans programme, which of the following would have happened?'

| | Year 1 findings (n=476) | Year 2 findings (n=226) |
|--|-------------------------|-------------------------|
| The business would not have been started at all | 33% | 35% |
| The business would have started, but at a later date | 43% | 41% |
| The business would have started, but on a smaller scale | 21% | 24% |
| The business would have started but would have been of lower quality | 18% | 15% |
| The business would have started-up at the same time, scale and quality | 13% | 14% |
| Don't know | 1% | 1% |

Source: Year 1 and 2 Beneficiary survey Note: multiple coding was possible for timing, scale and quality categories

For those beneficiaries reporting partial additionality from the programme, there were some differences in the Year 2 survey. As set out below, the data from Year 2 suggested that the acceleration effects of the programme were more pronounced than suggested in Year 1, with an increase in the proportion of beneficiaries reporting that the effect was over a year in Year 2. It is not evident what is driving this change; it may simply reflect individuals being more realistic on the requirements for starting a business and the effects of the programme in facilitating this process a further year on.

Figure 4-1: Response to: 'Approximately how much longer do you think it would have taken you to start-up the business, if you had not been involved with Start Up Loans?' in Years 1 and 2 surveys



Source: Year 1 and 2 surveys

It is also noted that where beneficiaries identified scale effects of the programme, these were *less* pronounced than reported in Year 1. The sample sizes here were small (n=55 for Year 2) so this finding should be treated with some caution. However, this is arguably to be expected as the effects of initial engagement in the programme may decay over time, and other factors may become important. Note that we did not seek to quantify or capture further quantitative data on the 'quality' effects of Start Up Loans (identified by 15% of respondents in Year 2); these effects are likely to vary widely and may be closely related to timing and scale effects. Findings related to the quality of businesses were covered in the case study research.

Nearly all (20 of the 24) of the Delivery Partners that responded to the online survey stated that in their view the programme had led, to a large extent, to the creation of new businesses that would not have started otherwise. In addition, two reported this effect to a moderate extent. Whilst these views are to be expected, Delivery Partners pointed to evidence to back up their claims, which included a mix of anecdotal feedback from beneficiaries, formal surveys, case studies and follow-up studies. As such, whilst these data should be treated as qualitative, they provide complementary evidence on the observed effects of the programme in supporting business start-ups across the delivery network.

Evidence on business performance

Econometric analysis

As set out in Section 3, the survival rate for businesses that have been started by the beneficiary group and comparison group stood at 87% and 90% respectively. The econometric analysis finds that the only factor that was significant on the survival rate was securing non-Start Up Loans external finance. The direction of causality is unclear here, and it may be that those businesses that survived (and can demonstrate a track record in sales and successful repayment of other finance) were more likely to obtain other external finance, rather than the additional receipt of external finance being instrumental for survival.

Last year's econometric work found a link between the Start Up Loans programme and the expectation of positive **sales growth** into the future. This year's results provide some evidence to suggest that this expectation of increased sales was borne out in reality (significant at the 10% level, see Table 4-3). From last year to the current year, the econometric results suggest that SUL beneficiaries were 19% more likely to report an increase in their sales compared with the comparison group. It is important to note that this finding directly measures whether a business increased its sales or not (i.e. a "yes" or "no" variable) rather than the size of any change in sales from the last financial year to the current one (for which no effect of the programme could be detected – discussed below). The finding that the programme has had an effect on whether businesses have increased their sales was also robust to various sensitivity tests (see more detail in the technical annex, Annex A).

Other factors relevant to a year on year increase in actual sales included:

- Having multiple owners involved in the business has a positive effect. Interestingly, this finding was the opposite of what was found in last year's analysis on expected sales. In Year 1 it was found that individuals involved in businesses with multiple partners were

less likely to expect growth, potentially suggesting that lone entrepreneurs tend to be considerably more optimistic.

- Being in receipt of some form of non-financial support (excluding the Start Up Loan).

The latter finding was probed further to consider the role of programme support – such as the provision of mentoring – in the mix of non-financial support received by entrepreneurs. This analysis showed that there was no direct evidence of a positive effect on the sales growth of beneficiary companies of SUL support, but did find a negative relationship on the interaction between SUL and non-SUL forms of non-financial support (see “INT: SUL mentoring * non-financial support” in Table 4-3). This finding hints that SUL mentoring and other non-financial support may, in effect, be substitutes for one another. The role of SUL mentoring may be important if the programme exposes beneficiaries to non-financial support (e.g. through the mentoring), which then influences them to use more support (from other sources) in the future. However, this finding is speculative as the econometric results did not provide clear conclusions.

In addition to whether an individual reported a positive change in sales or not, the absolute change in sales of those firms sampled that provided financial data was also analysed. Here the results provided no evidence of any effect of the programme on the magnitude of sales changes between last year and the current year for those businesses that had increased their sales (see Table 4-3).

It is important to note here that this analysis was undertaken for only those businesses that had increased their sales, as those businesses that recorded zero or negative changes in sales were excluded due to the econometric approach adopted³⁶. This also had implications for the sample size under analysis (N=129), and so the results need to be treated with additional caution.

Additional factors relevant to explaining the levels of growth achieved by growing firms include having had previous experience in business, having received some form of external finance (external to Start Up Loans), and reporting higher levels of sales in the previous financial year (see Table 4-3). For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-6.

³⁶ This is because the data were ‘transformed’ by taking natural logarithms to conform to the assumptions of the modelling approach, and ‘transforming’ negative or zero values is impossible.

Table 4-3: Summary of findings of econometric analysis on sales change outcomes

| Dependent variable | Sales change (binary) (N=195) | Sales change (absolute, logged) (N=129) |
|--|-------------------------------|---|
| Independent variables | Result | Result |
| Start Up Loans | + | <> |
| Personal characteristics | | |
| Owner age | <> | <> |
| Owner age squared | <> | <> |
| Previous business experience | <> | + |
| Degree | <> | <> |
| Female | <> | <> |
| Unemployed (pre-start) | <> | <> |
| Business characteristics | | |
| Business age | <> | <> |
| Business age squared | <> | <> |
| Multiple owners | ++ | <> |
| Sales in 2015 | <> | ++ |
| Strategy characteristics | | |
| Business plan (at any time) | ++ | <> |
| Non-financial support | ++ | |
| SUL mentoring | <> | |
| INT: SUL mentoring * non-financial support | -- | |
| External finance | | + |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Independent variables for sector and geography have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

Turning to **employment growth**, the Year 2 analysis indicated that beneficiaries of the Start Up Loans programme were more likely to increase their employment relative to the comparison group. Again, this analysis reflects whether or not a business grew in employment terms, rather than the magnitude of any employment increases or decreases (covered below). A positive effect of the programme was found when part-time and full-time workers were treated equally (hereon referred to as total employment), and when full-time employment only was considered. Statistically speaking, SUL beneficiaries had a 13% increased probability of increasing their levels of total employment, and a 10% increased probability of increasing their full-time employment base, respectively. However, in the case of the latter there is a lower level of confidence in the results (the programme was significant at the 10% level for full-time employment, and at the 5% level for total employment) – see Table 4-4. These findings on the positive effect of the SUL programme on whether companies have increased their employment were robust to various sensitivity tests (see more detail in the technical annex, Annex A).

Other relevant factors to both total and full-time employment change (unless otherwise stated) include the following:

- Female entrepreneurs were more likely to increase employment
- Entrepreneurs starting businesses in the wholesale, retail, transport and accommodation sectors were more likely to increase employment (significant at the 10% level)

- Individuals with other (non-Start Up Loans) forms of external finance were more likely to increase employment
- The businesses of those entrepreneurs that were unemployed prior to starting their business were less likely to increase employment (for the total employment change analysis only).

For the absolute change in total employment, the analysis failed to find an association between the programme and the scale of employment change. There was, however, a positive association between the programme and the absolute change in full-time employment at the 10% level of significance. Unlike for the change in absolute sales (transformed by taking natural logarithms, N = 129), data on changes in absolute employment were more complete (N=238). It is important to note that many companies saw no change in employment in the period under analysis. Whilst the approach taken to the analysis is appropriate, the limited variance means that the results in relation to absolute changes in employment should be treated with caution. For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-6.

Table 4-4: Summary of findings of econometric analysis on employment change outcomes

| Dependent variable | Employment change (binary) (N=233) | Full-time employment change (binary) (N=232) | Employment change (absolute) (N=238) | Full-time employment change (absolute) (N=237) |
|---------------------------------|---|---|---|---|
| Independent variables | Result | Result | Result | Result |
| Start Up Loans | ++ | + | <> | + |
| Personal characteristics | | | | |
| Owner age | <> | <> | -- | -- |
| Owner age squared | <> | <> | ++ | ++ |
| Previous business experience | <> | <> | - | <> |
| Degree | <> | <> | <> | <> |
| Female | + | + | <> | <> |
| Unemployed (pre-start) | - | <> | <> | <> |
| Business characteristics | | | | |
| Business age | <> | <> | <> | <> |
| Business age squared | <> | <> | <> | + |
| Multiple owners | <> | + | <> | <> |
| Sales in 2015 | + | <> | <> | <> |
| Strategy characteristics | | | | |
| Business plan (at any time) | | | <> | <> |
| Non-financial support | | | | <> |
| External finance | ++ | ++ | <> | |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Independent variables for sector and geography have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

A basic panel set up was also undertaken as part of the analysis, drawing on the longitudinal nature of the data collected on sales and employment. This provided more positive findings on the effect of the SUL programme, especially on absolute employment change and to a lesser

extent on absolute sales change. The main findings are summarised in a sub-section on “longitudinal analysis” in Annex A. It is important to note that the panel set up did not take account of the self-selection bias that the Heckman model, which was used in the core econometric analysis, was specifically used to address. Therefore, the panel data findings are less robust.

It is worth noting that the evidence from the survey of Delivery Partners is consistent with the overall direction of the findings presented in this section. Delivery Partners believed that the programme had contributed to the growth of businesses (in terms of employment and/or turnover), but their views were less strong than the views on the role of the programme in business creation. Of the 23 Delivery Partners that responded to the survey, 16 stated that they believed the programme had had an impact to a ‘moderate extent’, with just five stating that it had had an impact ‘to a large extent’ on business growth³⁷. Delivery Partners drew on a range of evidence to support this judgement, including client feedback and follow-up research. The case study evidence also provided limited qualitative evidence that the programme had led – at this stage – to perceived benefits in terms of business growth; the extent to which this message may change will be an important focus of the second wave of the case study research.

Evidence on other business outcomes

Econometric analysis

To reflect the potential wider effects of the programme on the performance of businesses set-up by beneficiaries the Year 2 analysis has been extended from sales and employment outcomes to consider the association between Start Up Loans and levels of innovation, and of exporting. Specifically, the analysis has covered whether firms have introduced a ‘new to the market’ innovation, or report being an exporter (i.e. selling goods and services to customers outside of the UK). The relevant sample for this analysis is for those individuals with businesses that are trading only.

The econometrics indicated that on innovation, there was a positive association between participation in the Start Up Loans programme and the introduction of a ‘new to market’ innovation. The marginal effect associated with the econometric model suggests that SUL beneficiaries have a 17% increased probability of introducing a new to market innovation, relative to the comparison group. Whilst on the face of it this is a positive finding for the programme, given the relationship between innovation and business growth³⁸, the causality is unclear. It may be the case that the programme attracts entrepreneurs that are more likely to engage in innovation, rather than the programme itself driving innovation. Entrepreneurs with innovative businesses are likely to seek finance and support from a range of providers, as their

³⁷ The options were: To a large extent; To a moderate extent; To a small extent; Not at all; Don't know. Respondents were asked to make their own judgement based on this relative scale.

³⁸ See for example SMEs: The Key Enablers of Business Success and the Economic Rationale for Government, p26-28 (Intervention, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/266304/bis-13-1320-smes-key-enablers-of-business-success.pdf)

business ideas may require greater levels of external finance and they may be regarded as risky from the perspective of more traditional providers of business finance (e.g. banks). This interpretation was supported by the positive association between innovation performance and other forms of external finance. Being male, holding a degree level qualification, and having previous experience in business were also all associated positively with introducing a 'new to market' innovation.

On export performance, the econometric results suggested that there was no association between being an SUL beneficiary and being an exporter. This finding held for various definitions of exporting based on the scale of exports³⁹. The analysis did, however, find some evidence to indicate that exporters tended to be degree educated and have multiple owners, but only when we employ the broadest definition of an exporter (i.e. those who have reported any sales overseas). For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-7.

Table 4-5: Summary of findings of econometric analysis on other business outcomes

| Dependent variable | Innovate (new to market) (N=345) | Export (any overseas sales, N=310) |
|---------------------------------|---|---|
| Independent variables | Result | Result |
| Start Up Loans | ++ | <> |
| Personal characteristics | | |
| Owner age | <> | <> |
| Owner age squared | <> | <> |
| Previous business experience | ++ | + |
| Degree | + | ++ |
| Female | -- | <> |
| Unemployed (pre-start) | <> | <> |
| Business characteristics | | |
| Business age | - | <> |
| Business age squared | <> | <> |
| Multiple owners | <> | + |
| Strategy characteristics | | |
| Business plan (at any time) | <> | <> |
| External finance | ++ | |
| INT: SUL * External finance | <> | |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Independent variables for sector and geography have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

³⁹ Exporters were defined in three different ways using data on the proportion of sales accounted for by customers outside of the UK. The three definitions were: i) any positive level of sales to customers outside of the UK; ii) 10% or more of sales to customers outside of the UK; and iii) 25% or more of sales to customers outside of the UK. Only the first of these is used in Table 4-5, with full details on all three available in the technical annex.

Personal development outcomes

One of the objectives of the programme is to benefit the individual entrepreneurs through their personal development (as well as through the development of businesses that are started-up). Therefore, the tracking survey has also sought to gather evidence on a range of personal development outcomes. These outcomes focus on individuals' own perceptions of their: confidence in running and managing a business (business confidence⁴⁰); overall business skills and knowledge (skills); and personal confidence in things outside of business (personal confidence).

Descriptive statistics on these personal development indicators are set out in Table 4-6, presenting data from both the Year 1 and Year 2 surveys. Note that the analysis is based exclusively on those individuals in the beneficiary and comparison groups that responded to these questions in both the Year 1 and Year 2 surveys; the analysis therefore does not include those individuals in the comparison group surveyed in Year 2 only. Three points are noted:

- Levels of business confidence and personal confidence were high amongst both groups, although beneficiaries reported slightly higher levels of business confidence than the comparison group in Year 2 (consistent with the data on Year 1); the extent to which there was a statistical link with the programme, when controlling for other factors, is considered below
- Assessment of skills and personal confidence were similar between the two groups, although (consistent with Year 1) survey respondents generally rated their overall business skills and knowledge as being lower than levels of confidence (with an average of under four for skills, compared to over four for personal and business confidence)
- There was a reduction in the average score between the two years of the survey on all indicators of personal development; this is reviewed in more detail below.

⁴⁰ Note that this relates to the confidence of the individual in their ability to run and manage a business, not confidence in wider business and market conditions

Table 4-6: Descriptive statistics on business confidence, skills and personal confidence (mean scores out of five)⁴¹

| | | Beneficiary group | Comparison group |
|---------------------|-----------------------------|-------------------|------------------|
| Business confidence | Mean score in Year 1 survey | 4.34 | 4.21 |
| | Mean score in Year 2 survey | 4.15 | 4.00 |
| | Change | -0.19 | -0.23 |
| | N | 324 | 185 |
| Skills | Mean score in Year 1 survey | 3.91 | 3.75 |
| | Mean score in Year 2 survey | 3.75 | 3.70 |
| | Change | -0.16 | -0.14 |
| | N | 323 | 183 |
| Personal confidence | Mean score in Year 1 survey | 4.41 | 4.42 |
| | Mean score in Year 2 survey | 4.26 | 4.17 |
| | Change | -0.15 | -0.23 |
| | N | 323 | 185 |

In the Year 1 report, a positive effect was found linking participation in Start Up Loans and higher levels of business confidence, but no further links were identified between the programme and any other personal development outcomes. However, the Year 2 econometric results did not indicate a statistical link between the programme and levels of business and personal confidence, or in levels of business skills and knowledge (see Table 4-7). As in the Year 1 analysis, however, we did find an association between each of these outcomes and producing a business plan, which suggests that either developing a business plan helps to improve wider business and personal development outcomes in a variety of ways, or that those with better skills and higher confidence were more likely to write a business plan in the first place (the causal relationship is not evident).

As writing a business plan was a requirement of the Start Up Loans application process for the beneficiary group – and support was provided to facilitate this process – there may be an effect on confidence through this requirement, though the results are inconclusive. This is most likely in terms of business confidence where a basic correlation exists between the programme and business confidence. However, no statistical association could be found on the extent to which business planning through the programme has affected personal development outcomes when other factors were included in the analysis.⁴² In each case, the results proved inconclusive, with no evidence linking this aspect of Start Up Loans support to these outcomes.

⁴¹ For business confidence and personal confidence: 1=Very unconfident, 2=Unconfident, 3=Neither, 4=Confident, 5=Very confident. For skills: 1=Very poor, 2=Quite poor, 3=Neither poor nor good, 4=Quite good, 5=Very good

⁴² We tested for an interaction effect between producing a business plan as part of the Start Up Loans process, but found no statistically significant evidence of a link between this and the more general finding that the development of a business plan was associated with higher business confidence. It is important to note that due to the inclusion of the business age variable, this analysis excluded businesses that had not yet started. Excluding this variable from the models, however, does not alter the conclusions presented.

A range of other factors related to personal development outcomes in the Year 2 analysis were found (see Table 4-7), as follows:

- There was a negative relationship between the age of the entrepreneur and the likelihood of reporting high levels of business confidence. As the coefficient on the age squared variable is negative and (weakly) significant, this relationship is potentially “U” shaped, suggesting that at the extremes of young and old age, business confidence was higher
- Having previous experience in business was linked to higher levels of business skills and knowledge, while negatively related to personal confidence
- Female entrepreneurs had lower personal confidence
- Receiving non-financial support (external to Start Up Loans) was associated with reporting higher levels of personal confidence.

For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-8.

Table 4-7: Summary of findings of econometric analysis on personal development outcomes

| Dependent variable | Business confidence (N=450) | Skills (N=449) | Personal confidence (N=449) |
|---------------------------------|--|-----------------------|--|
| Independent variables | Result | Result | Result |
| Start Up Loans | <> | <> | <> |
| Personal characteristics | | | |
| Owner age | - | <> | <> |
| Owner age squared | + | <> | <> |
| Previous business experience | <> | + | - |
| Degree | <> | <> | <> |
| Female | -- | <> | -- |
| Unemployed (pre-start) | <> | <> | <> |
| Business characteristics | | | |
| Business age | <> | <> | <> |
| Business age squared | <> | <> | <> |
| Multiple owners | <> | <> | <> |
| Strategy characteristics | | | |
| Business plan (at any time) | ++ | ++ | ++ |
| Non-financial support | | <> | ++ |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Independent variables for sector and geography have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

For the entrepreneurs present for both surveys we also analysed the change in personal development outcomes from Year 1 to Year 2. As noted above, the descriptive statistics illustrated that overall, across all three personal development outcomes, average levels have dropped for both the beneficiary and comparison groups. The econometrics did not, however, find any statistically significant differences between the beneficiary and comparison groups, i.e. changes in levels of confidence are similar across both groups. This suggests that the patterns

observed over time are likely to reflect challenges faced by an entrepreneur as their business proceeds beyond its first year, or wider changes to the economic context, rather than an effect of the programme. Personal development outcomes are considered in greater detail in the following section when analysing programme delivery.

Section 5: Evidence on programme delivery

Key findings

- The delivery model incorporates four key stages: initial enquiry, pre-application support, loan assessment and provision, and mentoring. A key area of investigation in the Year 2 assessment has been the mentoring aspect, and within this there have been varied approaches and experiences across Delivery Partners.
- The evidence has indicated that whilst the majority of programme beneficiaries have taken up mentoring, a substantial proportion (around 20%) have not. In addition, whilst the majority of those taking up mentoring have been satisfied or very satisfied with the mentor that has been matched with them, again a substantial minority (around 20%) were dissatisfied or very dissatisfied.
- These findings aligned with feedback from Delivery Partners, for instance on challenges relating to the capacity for mentoring and/or having sufficient mentors that match the requirements of individual beneficiaries, and also with varying levels of demand for mentoring amongst beneficiaries.
- Beneficiaries interviewed as part of the case studies have identified some positive examples of mentoring. Beneficiaries have identified the importance of the skills and expertise of the mentor and the translation of these to the beneficiary's business context, the listening and problem solving of mentors, and the flexibility of mentors as key features underpinning good mentoring relationships.
- The econometric analysis does not provide statistical evidence that the mentoring support provided through the programme has had a positive influence on business or personal development outcomes for those that have taken it up (relative to those that have not). However, mentoring delivery has varied significantly across Delivery Partners, and there is a range of factors that drive whether an individual seeks mentoring assistance. These factors, which can include having less experience or being in financial distress, can have different implications for expected business and personal outcomes. Therefore, discerning the effects of mentoring on performance is challenging, and the absence of a statistical association between mentoring and business and personal outcomes does not necessarily mean that it has not made a difference for certain beneficiaries.
- There was a positive association between the number of hours of mentoring and arrears – those in arrears for 1 month+, 3 months+ and 6 months+ were more likely to have taken up mentoring for longer (though this did not hold for those in arrears for 12 months+). This may indicate, encouragingly, that those in arrears have sought mentoring to help solve underlying challenges in their business.

Coverage

This section sets out the findings of the evaluation at this interim stage on programme delivery issues. The focus here is on the beneficiary group only, and the consideration of the extent to which different elements of the programme are delivering benefits for its target group. In this Year 2 report, the focus is particularly on two issues: first, the effects of mentoring support, and

second on arrears, including the factors that may be influencing the level of arrears experienced by the survey cohort. Where the focus is on the econometric analysis, the section focuses on presenting the findings. Details of the technicalities of the specification of the models is discussed in Annex A. Consistent with the previous section, the analysis combines econometric analysis with descriptive analysis.

Prior to considering the evidence on the beneficiary cohort, the section provides a re-cap on the delivery model, and the evidence from the qualitative research on how this may have moved on over the past year since the year 1 research, drawing particularly on the second wave of the Delivery Partner survey.

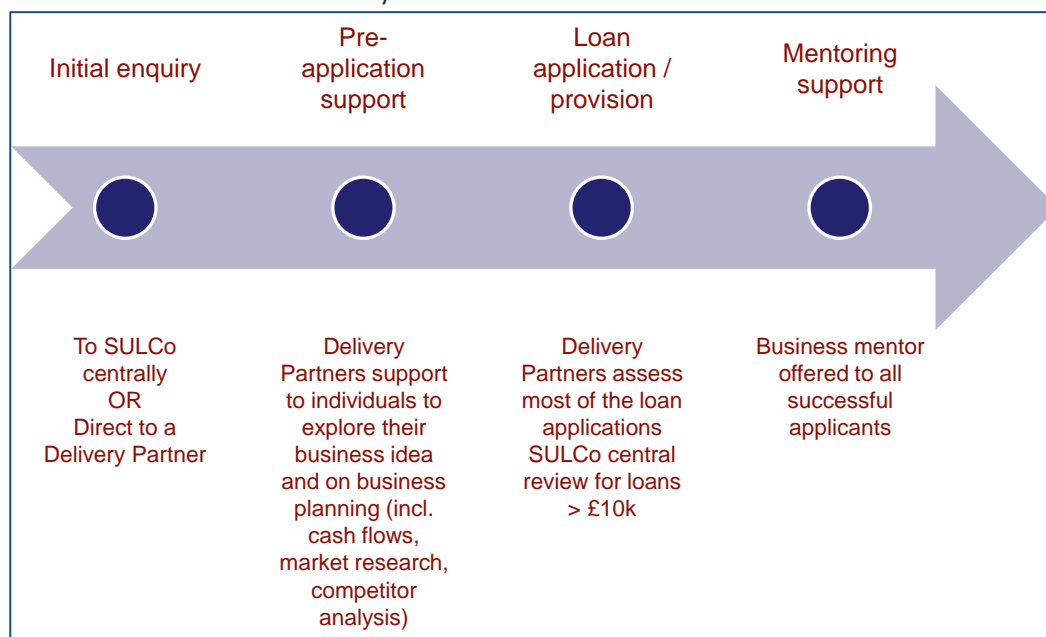
Re-cap on the delivery model

The programme is coordinated and managed centrally by SULCo, and in this role it delivers functions such as programme management, marketing and PR, centralised engagement with would-be applicants (e.g. through a central website for new referrals), and programme monitoring. Delivery of loans and support is contracted to a range of national and local Delivery Partners, which provide most of the core activities of the customer journey to applicants and potential applicants.

The customer journey is illustrated in Figure 5-1 below, through four main stages, which are largely delivered through the network of Delivery Partners. The four stages are as follows:

- First, an initial enquiry is made by potential applicants to engage with the programme via the central website (managed by SULCo) or directly through a Delivery Partner.
- Second, applicants are offered pre-application support to develop their idea and business plan.
- Third, applicants submit an application, and if successful are provided with a low-interest (rate of 6%) business loan. Applications for loans are normally assessed by Delivery Partners, unless the value requested is over £10,000, in which case SULCo manages a central assessment process.
- Fourth, all successful applicants are offered mentoring support following loan drawn down (with mentoring offered to be offered by six weeks following loan draw down).

Figure 5-1: Overview of delivery model



The overall model for the programme has not changed since the Year 1 report, and the above model should reflect the offer made to the beneficiary cohort (noting that they were drawn from those drawing down loans between June and December 2014). However, a number of points are worth noting from the second wave of the Delivery Partner (DP) survey.

First, most of the DP respondents that had also responded to the survey in Year 1 stated that their approach to delivering pre-application support had not changed over the last 12 months. Only two respondents said that delivery had altered with both moving to one-to-one delivery. One of these two providers had moved from a general group workshop model followed by tailored individual meetings, to having more one-to-one phone conversations instead. Also, whereas previously they used a combination of their own staff and paid contractors/agents, they now solely use their own staff. The second provider previously used a mixture of one-to-one sessions and group seminars but has now moved to one-to-one meetings in person.

Second, there were also only modest changes in the method of mentoring. Only one DP noted a change in their delivery method over the last 12 months, with this provider also being one whose model of delivering pre-application support had changed. Their mentoring has now changed from face-to-face to phone-based sessions, which may be related to looking to minimise the costs of delivery.

Third, just under half (nine) of the respondents to the delivery partner survey said they had faced some capacity issues in delivering mentoring support. The quantity of mentors (i.e. availability and numbers) seems to have been particularly problematic. For instance, delivery providers reported difficulties in getting an adequate geographic spread of mentors, finding mentors with the specialist knowledge requested by beneficiaries, and difficulties in recruiting volunteers. Three delivery partners also said that they faced challenges with the quality of mentors alongside the problems around quantity. Again, the concern centred on not being able to find mentors that could meet the specific needs of their clients.

The case studies highlighted variations in approaches and experiences of the Delivery Partners to the delivery of mentoring. For instance, approaches have included: treating mentoring as a continuation of the pre-application process with the relevant business advisor continuing as the mentor (subject to the beneficiary wanting to take up mentoring); seeking to recruit and match mentors from experienced businesspeople to each beneficiary based on various criteria; the use of group-based mentoring sessions; and combinations of approaches. One provider had tried multiple approaches, and had encountered challenges, notably in recruiting sufficient mentors with the right skills and expertise, having sufficient capacity internally to organise group-based sessions, and due to beneficiaries needing to travel for group-based sessions. In contrast, one Delivery Partner considered their mentoring delivery approach as a key selling point, and had been able to attract a large number of mentors covering a wide range of expertise such that they have been able to match mentors to beneficiaries on a one-to-one basis using matching software. This success in reach to recruit mentors may be due to having a high degree of national brand value, and the implementation of good practice on aspects such as setting out clear guidelines for the relationship. Consultations with a number of beneficiaries supported by the delivery partner suggested that this approach to the mentor match and delivery was effective.

Fourth, following the completion of the mentoring support under the SUL programme, Delivery Partners indicated they provide a range of further follow-on support. Of the 23 respondents to the survey: 17 indicated that they sign-post beneficiaries to other forms of financial support, and 18 to other forms of business support; 12 indicated that they provide follow-on finance, with a number of these Delivery Partners delivering other publicly-funded schemes that beneficiaries can apply for; and 8 indicated that they provide further mentoring, not funded by the Start Up Loans programme. This follow-on support may play an important role in supporting the on-going development of the business supported by beneficiaries, and there was some evidence from the case-study research that the wider support available outside of the formal programme delivery model is valued by beneficiaries.

Finally, the Delivery Partner survey highlighted the significant scale of referrals that come into the customer journey, and the significant levels of 'drop-outs' at various stages. Of the 22 Delivery Partners that provided data, half (11) stated they had received over a thousand referrals for the programme over the past year, with a further nine stating they had received over 500. However, 18 of the 22 stated that under half of their referrals led to an application (with six of the 22 identifying that under 10% of referrals resulted in an application); and in turn, of those individuals that did apply, 18 of the 22 Delivery Partners stated that under half were successful in their application. Taking a mid-point on the number of referrals and application/success rates across the 22 Delivery Partners surveyed suggests that an indicative 35,000 referrals would lead to around 3,250 loans, which represents a conversion ratio of 9%. If one of the Delivery Partners that indicated a high number of referrals and a particularly high application rate (91-100%) is excluded, the conversion ratio reduces to 6%.

This conversion rate from initial referral to loan may be expected given the 'open access' nature of the programme (i.e. it is open to anyone across the UK seeking to start a business). Indeed, interview feedback from SULCo indicates that between four to six 'serious' applicants are required to generate one completed application across the programme. However, the ratio from application to loan approval is around one in four (25% and 28% excluding and including the outlier), meaning that a significant amount of resource is expended providing pre-application

support to individuals that submit applications that are not successful (with a significant proportion of the payment made to Delivery Partners paid on loan approvals).

Of the 23 Delivery Partners completing the online survey, 15 indicated that the non-lending finance provided by SULCo did not cover the full cost of delivering the programme, and eight that it did. The need to provide pre-application support to significant numbers of individuals that did not secure a loan approval was one of the reasons identified why the finance provided to deliver the programme did not cover the full cost of delivery. A number of specific examples of feedback provided for why the finance does not cover the costs are provided below:

"The client group require significant time and hand holding to get them investment ready."

"We work with many clients who are looking to apply but not all complete the process. We work with all applicants on a one to one basis and have several meetings with each applicant to complete the application process."

"Because of the level of prescribed activity undertaken in advance of a loan being drawn; the level of activity dealing with loans that do not get drawn down."

According to Delivery Partners, the viability of the underpinning business idea (17) and the viability/realism of cash flow forecasts (10) were the most commonly identified reasons for why applications were not successful. However, the case study research again highlighted the different approaches taken by Delivery Partners in the client acquisition process, with implications for conversion and success rates. The approaches across the six case studies included: a targeted approach where the Delivery Partner actively went out and sought potential beneficiaries through local networks (for example links with banks and other business support providers); drawing clients largely from a complementary programme that supports individuals to develop an initial business plan; Delivery Partner-led marketing and use of their own website; and relying principally from referrals from SULCo via the national website. These different approaches reflect the scale, operational model, and delivery context of the Delivery Partners engaged in the case study research.

The effects of mentoring support

Mentoring take-up

As described above, the entire beneficiary group was eligible for mentoring support. In the survey in Year 1, 89% of beneficiaries stated they had been offered mentoring and 10% that they had not (1% could not recall). A further year on, this finding remained consistent, with 92% of beneficiaries surveyed in Year 2, where the data were available, indicating that they had been offered mentoring support, and 7% that they had not (1% could not recall). The take-up rate for those offered mentoring (n=239) was 78%, with 20% rejecting mentoring, and 2% reporting that they will start mentoring support in the future.

Table 5-1 presents the mentoring take-up rates by: gender, ethnicity, whether the individual had a degree or not, employment status prior to receiving support and whether or not the beneficiary had any business experience prior to receiving any support. The data suggest that

mentoring take-up was consistent amongst all groups, with the exception of business experience: beneficiaries with no business experience prior to receiving support were more likely to take-up mentoring support than those who had prior business experience. This result may be expected, as individuals with business experience may have believed that the mentoring support would not have added any significant value to their understanding of starting a business, as compared to those who had no business experience.

The case studies highlighted that take-up of mentoring has varied for a number of different supply- and demand-side reasons. On the latter, some of the beneficiaries interviewed as part of the case studies indicated that they saw the mentoring as particularly useful when their business was in its infancy, and business advisors themselves pointed out that they did not want to engage with beneficiaries for the sake of doing so. If a beneficiary was not in touch with them, this was often perceived to be because the business was doing well. However, this contrasted with some beneficiary feedback, which suggested that they were “too busy” to engage in mentoring, which may mean that there has been a lack of appreciation of the potential benefits that could be gained through mentoring. Two of the Delivery Partners involved in the case studies also indicated that take-up of mentoring was associated with those individuals that have less experience, either specifically in terms of business or enterprise experience, or more generally from younger beneficiaries.

On the supply-side, the lack of capacity amongst mentors (as identified earlier) was noted as a challenge by Delivery Partners and beneficiaries themselves, with the latter indicating that there was often no flexibility in when mentors could meet with them. In addition, the supply of mentoring through group-based sessions had resulted in mixed take-up, partly due to the fixed time/location of the sessions and the time required to organise such sessions.

Table 5-1: Take-up of mentoring by sub-groups

| | Taken-up mentoring | Rejected mentoring | Will start in future |
|--|---------------------------|---------------------------|-----------------------------|
| Female (n=95) | 80% | 17% | 3% |
| Male (n=138) | 77% | 22% | 1% |
| White (n=186) | 78% | 20% | 1% |
| Non-white (n=47) | 77% | 19% | 4% |
| With a degree (n=140) | 79% | 19% | 1% |
| Without a degree (n=93) | 76% | 22% | 2% |
| Unemployed pre-support (n=72) | 78% | 19% | 3% |
| Not unemployed pre-support (n=161) | 78% | 20% | 1% |
| Business experience pre-support (n=77) | 73% | 26% | 1% |
| No business experience pre-support (n=156) | 81% | 17% | 2% |

Source: Year 2 survey. Note: numbers may not add to 100 owing to rounding

The hours of mentoring received by beneficiaries that received mentoring over the past year is set out in Table 5-2⁴³. The data indicate the variation in the volume of mentoring support taken-up to date, with around 30% receiving up to five hours of mentoring support, 40% receiving between 6-20 hours, and around 20% receiving over 21 hours of support. Further analysis on the amount of hours received by different sub groups suggested that there were no major differences: the hours of mentoring support received were broadly consistent by gender, ethnicity, whether the individual had a degree or not, employment status prior to receiving support and whether or not the beneficiary had any business experience prior to receiving any support.

Table 5-2: Hours of mentoring support received by beneficiaries over the past year (n=142)

| Hours of mentoring support | No of beneficiaries | Proportion % |
|----------------------------|---------------------|--------------|
| Up to 5 hours | 41 | 29% |
| 6-20 hours | 59 | 42% |
| Over 21 hours | 30 | 21% |
| Can't recall | 12 | 8% |
| Total | 142 | 100% |

Source: Year 2 survey

There is no prescribed mode of mentoring support, and some Delivery Partners provide a mix of different modes of support. However, as set out in Table 5-3 below, for those individuals that have received mentoring support over the past year, the most common form of mentoring support was face-to-face and one-to-one. This was identified as the principal form of mentoring by two-thirds of those that have taken up mentoring, with 16% identifying phone as the principal mode of mentoring support. The mode of support received by the different beneficiary sub-groups was consistent with the overall results. However, the evidence from the case study research does indicate that the mode of support is often flexible and 'demand-led', involving a mixture of different modes of support based on what is seen to be most appropriate, practical and valuable for the beneficiary.

⁴³ The data include only those beneficiaries that received mentoring in the past year (n=142). The data exclude those beneficiaries that took up mentoring in Year 1 but were no longer receiving mentoring by the point of the Year 2 survey (n=34), those that could not recall if they were still receiving mentoring (n=3), or that indicated in the Year 2 survey they had received zero hours of mentoring over the past year (n=8)

Table 5-3: Medium of mentoring support over the past year (n=142)

| Type of support received | No of beneficiaries | Proportion % |
|-------------------------------------|---------------------|--------------|
| Mainly face-to-face, and one-to-one | 96 | 68% |
| Mainly by phone | 23 | 16% |
| Mainly online | 10 | 7% |
| Other | 5 | 4% |
| Mainly face-to-face, and in a group | 8 | 6% |
| Total | 142 | 100% |

Source: Year 2 survey

Perspectives on mentoring

Around two-thirds of beneficiaries that had received mentoring support in the past year (n=150)⁴⁴ reported that they were 'very' or 'quite' satisfied that the mentor assigned to them matched their needs. The most common explanation for this was that the mentor had knowledge relevant to their market sector (identified by 50 of the beneficiaries receiving mentoring over the past year). Other common reasons associated with satisfaction with the mentor match were: that the mentor had skills relevant to the business (identified by 30); the level of experience of the mentor (identified by 19); and the personality of the mentor (identified by 17). Some of the positive feedback from beneficiaries through the case studies highlighted similar reasons for satisfaction, including the mentor match generally, the skills and expertise of the mentor, and the approach to mentoring (e.g. identifying good practice traits such as "listening and identifying problems", and flexibility in when advice was requested and provided).

Around one-fifth of respondents (21%) stated they were either 'very' or 'quite' dissatisfied with their mentor match. Two issues were most commonly identified for dissatisfaction: beneficiaries felt that the mentor did not have knowledge relevant to their market sector and/or that the mentor did not have skills relevant to their business. As noted above, these issues may link back to the capacity constraints faced by some Delivery Partners in finding sufficient numbers of mentors with the right types of skills and expertise. Some similar issues, for instance the lack of specific sector-based knowledge, were also identified by the case study research.

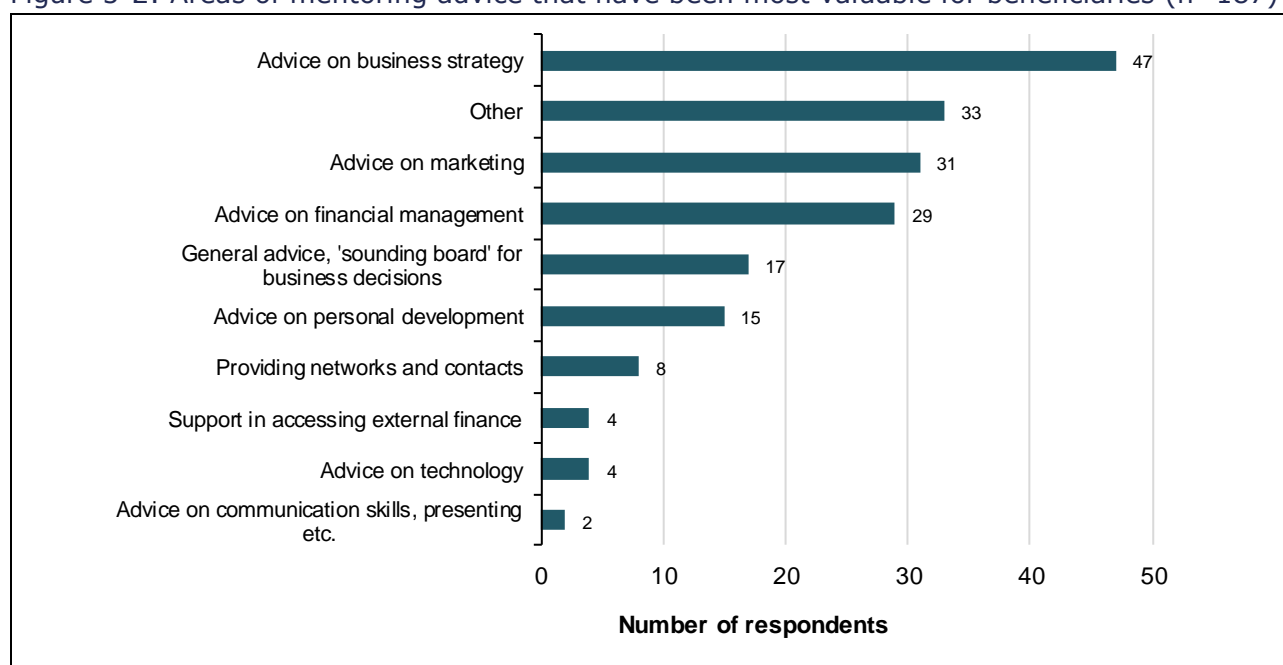
It is notable that this level of dissatisfaction in the Year 2 survey was higher than the evidence in Year 1, when just 8% of those that took up mentoring were dissatisfied/very dissatisfied (n=451) with their mentor match. This may reflect the challenges identified by Delivery Partners in the recruitment and retention of appropriate mentors over the past year, although it could also reflect the survey sample in year 2, which included a higher proportion of individuals that were older, and a higher proportion with higher loan values, where levels of satisfaction with the mentor match were lower. Indeed, whilst the data must be treated with caution owing to the modest sample sizes, it is worth noting that 16% of those individuals with a loan over £8k that

⁴⁴ This data includes the eight beneficiaries that indicated they had received zero hours of mentoring support in the last year, but had taken-up mentoring/been assigned a mentor.

received mentoring over the past 12 months stated that they were 'very dissatisfied' with their mentor match, compared to none of those with a loan of under £3k.

When asked about which type of mentor advice beneficiaries found most valuable, the most common area identified was advice on business strategy, including on scaling-up the business and market opportunities. Advice on marketing, financial management and general advice (i.e. providing a 'sounding board' for business decisions) were also commonly identified. However, it is notable – and consistent with the wider evidence on the flexible and tailored nature of mentoring support – that the 'other' category was the second most common, where the response provided by the beneficiary did not sit within any of the types of advice set out in the Figure. Examples of this 'other' advice ranged from very specific issues (e.g. 'graphics design advice' and 'contracts and property renting', to drawing on the broader experience and expertise of the mentor (e.g. 'knowledge about the international trade' and 'drawing on their experience'). Advice related to developing confidence and capacity was also a theme across these 'other' responses.

Figure 5-2: Areas of mentoring advice that have been most valuable for beneficiaries (n=187)



Source: Year 2 Beneficiary survey

Table 5-4 presents findings from the Year 2 survey on the type of effect that beneficiaries felt the mentoring has had. Specifically, beneficiaries were asked about the effect of mentoring on the business, their own business skills and whether the mentoring provided practical advice to help improve the business. In all three categories, over two-thirds of the respondents stated they either agreed or strongly agreed with the statement. There was similar consistency amongst those beneficiaries who disagreed: 17-20% of respondents said they either disagreed or disagreed strongly with each of the three statements. A small proportion of respondents stated they neither agreed or disagreed with the statements.

Table 5-4: Self-reported effects of mentoring support (n=187)

| | It has had a positive effect on your business | It has helped you personally to develop new or improved business skills | It has provided me with practical advice to help me improve my business |
|----------------------------|--|--|--|
| Agree | 33% | 35% | 42% |
| Agree strongly | 37% | 30% | 30% |
| Disagree | 6% | 9% | 9% |
| Disagree strongly | 11% | 11% | 10% |
| Don't know | 1% | 1% | 1% |
| Neither agree nor disagree | 12% | 14% | 9% |
| Total | 100% | 100% | 100% |

Source: Year 2 Beneficiary survey

Evidence from the Delivery Partner survey

The Delivery Partner survey provides some notable evidence on mentoring. Roughly a third of respondents to the delivery partner survey (six) suggested that having a flexible approach to mentoring was more likely to be successful. They noted that clients were not always interested in having one-to-one sessions in person: sometimes they preferred to attend workshops, have the option of using Skype, or approach mentors more informally by telephone or email. They also implied that simply signposting to existing mentoring provision and/or events can sometimes be as valuable as the Delivery Partner arranging mentoring programmes themselves.

Six respondents also spoke of the importance of the quality of mentors. Four Delivery Partners said that they worked with specialists in business mentoring to help provide a quality service. Others spoke of the wider qualities that effective mentors needed including being “fully engaged” and being “passionate about the scheme.” Feedback from beneficiaries as part of the case study research highlighted the flexibility of individual mentors, and also emphasised the quality in terms of the match of skills and expertise of the mentor to the business.

Delivery Partners were also asked what worked less well with the mentoring provision. Of the 14 that responded to the question, seven said that a major challenge was simply trying to engage clients in the mentoring process. Some, for example, said that some beneficiaries failed to see the benefits of mentoring while others would not respond when mentors made contact. One respondent spoke of how clients would only approach mentors when there was a problem – they were less interested in maintaining regular contact with them. This feedback aligned with some evidence from the case studies, where being “too busy” was a reason for some disengagement in the mentoring process by beneficiaries – which may signal a lack of appreciation of the potential benefits of this element of the programme. The case studies also provided evidence of Delivery Partners promoting mentoring support actively, which led to initial take-up, but that this then dropped-off sharply after the initial mentoring meeting.

Three respondents also spoke of how there were problems finding enough mentors. Amongst these, specific concerns included mentors not remaining engaged in the programme; and as noted earlier, finding mentors with the specialist skills and knowledge demanded by some clients.

Econometric analysis

The findings presented above from the descriptive analysis and qualitative research are, on balance, positive regarding the effects that mentoring can have on business and personal development – albeit with some challenges and inconsistencies. The econometric analysis, however, does not provide *statistical* evidence at this stage that the mentoring support provided through the programme has had a positive influence on business or personal development outcomes. As discussed below, individuals may have sought mentoring for various reasons, including where they have lower levels of business experience and/or to assist when a business is facing significant challenges: therefore, discerning effects of mentoring on performance is challenging.

For business survival, sales change (i.e. if an entrepreneur has grown their business from Year 1 to Year 2) and scale of sales growth (the magnitude of the sales increase achieved those firms that have reported growth) there was no evidence of any effect of mentoring. For employment change and scale of employment growth, there was however, some evidence to suggest that there was a *negative* relationship between taking up mentoring and hiring more staff; the results are set out in Table 5-5.

There was some countervailing evidence to suggest that those who use more hours of mentoring support increase their full time employment base, but this was only weakly statistically significant (at the 10% level). The mixed nature of these findings is perhaps to be expected. While mentoring may be beneficial to the performance of businesses run by beneficiaries, the data also indicate that take-up of mentoring is higher for those individuals with less business experience, and that this group has sought more mentoring support. Individuals that experience big challenges in the early stages of the start-up process are also, perhaps, likely to find the mentoring option attractive. These countervailing effects are difficult to unpick in the econometric modelling.

It is important to reiterate the samples that were included for each piece of econometric analysis. For changes in employment and sales, the analysis is based on trading businesses that have provided two data points, i.e. for 2015 and 2016. On the mentoring variables themselves, it is important to highlight that any analysis on mentoring hours is limited to individuals that have received mentoring and provided data, resulting in small sample sizes that should be treated with caution (from 34 for the absolute logged sales change variable, to 110 for the analysis of business confidence). For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Tables A-13 to A-16.

Table 5-5: Summary of findings of econometric analysis of mentoring on employment outcomes (in each column, the results of the mentoring variables from five different models are presented, separated by lines - see note beneath the table for further details)

| | Employment change (binary) | Full-time employment change (binary) | Employment change (absolute) | Full-time employment change (absolute) |
|---|----------------------------|--------------------------------------|------------------------------|--|
| SUL mentoring | -- | - | <> | <> |
| SUL mentoring hours | <> | <> | <> | + |
| Any mentoring (including SUL) | <> | <> | <> | <> |
| SUL mentoring | -- | - | <> | <> |
| Non-SUL mentoring | <> | <> | <> | <> |
| Interaction - SUL and non-SUL mentoring | <> | <> | <> | <> |
| SUL mentoring | -- | - | <> | <> |
| Non-financial support | <> | <> | - | <> |
| Interaction - SUL mentoring and non-financial support | <> | <> | <> | <> |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Each column presents the results for three separate models for each dependent variable. Each model contains a range of additional independent variables have, but the table focusses on the key mentoring variables of interest for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

For personal development outcomes, the analysis suggests that uptake of mentoring was associated with those entrepreneurs with lower levels of business confidence. There was, however, no relationship between mentoring and having high or low levels of skills, knowledge, and personal confidence, or indeed any association with changes in the full suite of personal development outcomes (see Table 5-6).

For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Tables A-17 to A-19.

Table 5-6: Summary of findings of econometric analysis of mentoring on personal development outcomes (in each column, the results of the mentoring variables from five different models are presented, separated by lines - see note beneath the table for further details)

| | Business confidence | Skills | Personal confidence |
|---|---------------------|--------|---------------------|
| SUL mentoring | -- | <> | <> |
| SUL mentoring hours | <> | <> | <> |
| Any mentoring (including SUL) | <> | <> | <> |
| SUL mentoring | - | <> | <> |
| Non-SUL mentoring | <> | <> | <> |
| Interaction - SUL and non-SUL mentoring | <> | <> | <> |
| SUL mentoring | -- | - | <> |
| Non-financial support | <> | <> | + |
| Interaction - SUL mentoring and non-financial support | <> | <> | <> |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Each column presents the results for three separate models for each dependent variable. Each model contains a range of additional independent variables, but are omitted for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

These models also included the value of the start up loan as a control variable. For the majority of the outcome variables the size of the loan received was not significant. However, there were a small number of exceptions where the loan value was associated with the outcomes of interest, as follows:

- There was a positive association between loan value and an individual's assessment of their business skills and knowledge. This potentially reflects a link between the abilities of highly skilled entrepreneurs and applications for loans of a higher value (rather than the higher loan value leading to higher business skills)
- A positive association was also found between absolute (logged) sales change and loan value. This indicates that entrepreneurs in receipt of larger loans were able to generate higher rates of sales growth. It is important to note that the sample of firms is limited in this analysis, as it excludes all businesses with zero or negative changes in their sales⁴⁵.

Arrears

Overview

As noted in section 3, 24% of beneficiaries in the Year 2 survey cohort were in arrears by the end of March 2016. As set out in Table 5-7, the rate of arrears was consistent by age group and take-up of mentoring. However, the arrears rate for those beneficiaries in the survey cohort with

⁴⁵ As noted in section 4, the log transformation made in creating this variable means that all businesses with zero or negative sales are excluded. This transformation is necessary due to the nature of the variable. Please see the technical Annex A for more details.

loans under £3k was lower than for those with higher loan values, consistent with the data on the evaluation population as a whole discussed in Section 3.

Table 5-7: Rate of arrears by March 2016 by sub-groups of the beneficiary survey cohort

| | Arrears rate |
|-------------------------------|---------------------|
| Overall | 24% |
| Loan value | |
| Up to £3k (n=60) | 17% |
| £3k to £8k (n=162) | 23% |
| Over £8k (n=97) | 31% |
| Age group | |
| 18-30 (n=113) | 26% |
| 31+ (n=206) | 23% |
| Mentoring take-up | |
| Taken up mentoring (n=180) | 25% |
| Not taken-up mentoring (n=71) | 24% |

Source: Year 2 survey

Factors affecting arrears

The econometric analysis considered a range of categories of arrears, ranging from 1 month or more to over 12 months in arrears, to understand the factors that were associated with defaulting on loan repayments, including an examination of the support options provided within the Start Up Loans programme. Controlling for a range of factors, the econometric analysis provides very limited evidence on the factors that have influenced repayment status, as set out in the table below.

However, there was some evidence that those individuals in arrears spent greater quantities of time with their mentors, thereby potentially compensating for their financial difficulties in servicing their loan by investing time in trying to improve their businesses in order to recommence loan repayments. This is shown in Table 5-8 with the positive and significant relationship between the duration of SUL mentoring support and being in arrears over a time horizon of at least 1 month, 3 months and 6 months. This finding was, however, not true for individuals in the extremes of arrears (12 months plus). Individuals involved in firms with multiple owners were also more likely to be in arrears in the 'short-term' (i.e. one or three months); this may reflect the different calls on finance for these businesses that may involve multiple sources of finance from different owners; this effect was not evident for longer-term arrears.

The analysis includes only those individuals that had received mentoring and provided data on the number of hours of mentoring received (i.e. those that did not take up mentoring were excluded). Analysis was also completed with these mentoring variables excluded (and so including those that had not taken up mentoring), and the conclusions presented remain

consistent. For the full econometric results tables, and details of the specification of the econometrics model that has been used, please see Annex A, and specifically Table A-9.

Table 5-8: Summary of findings of econometric analysis on arrears

| | Arrears (1 month +) (N=106) | Arrears (3 months +) (N=106) | Arrears (6 months +) (N=106) | Arrears (12 months +) (N=106) |
|---------------------------------|-----------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| Owner age | <> | <> | <> | <> |
| Owner age squared | <> | <> | <> | <> |
| Previous business experience | <> | <> | <> | <> |
| Degree | <> | <> | <> | <> |
| Female | <> | <> | <> | <> |
| Unemployed pre-start | <> | <> | <> | <> |
| Multiple owners | + | ++ | <> | <> |
| SUL mentoring hours | + | ++ | + | <> |

Note: [++ = positively significant at 5% level; + = positively significant at 10% level; -- = negatively significant at 5% level; - = negatively significant at 10% level; <> = no significant effect]; Other independent variables have not been included in this table for ease of presentation. Unless otherwise stated in the text, these were not found to be significant.

The data on the characteristics of those in arrears suggest that there is a link between arrears and business survival: for those individuals that reported their business was trading, 20% were in arrears (n=269), compared to 45% of those that reported their business was no longer trading (n=40). Statistical analysis also finds an association between arrears and whether the business is no longer trading, including when other individual characteristics are controlled for. This is perhaps not a surprising finding, and the direction of causality is not entirely clear. It should also be noted in considering the findings here that there was a modest number of individuals in the beneficiary group that reported their business was no longer trading (around 40 beneficiaries).

The level of arrears at this stage in the programme was one of the topics covered in the online Delivery Partner survey: partners were asked if the level of arrears amongst individuals they had supported was higher or lower than they would have expected at this stage.

Of the 22 respondents to the survey that provided a response, 12 stated that the overall level of arrears was in line with what was expected, and eight that it was lower than expected (two did not know, and one stated that the arrears rate was higher than expected). For those that identified the rate was in line with the expectation, the principal explanation was that Delivery Partners were aware that business failure rates are expected to be higher for start-ups than for established businesses, which in turn was assumed to lead to higher levels of arrears than would be expected for loan products offered to later-stage firms.

For those partners that stated that the level of arrears was lower than anticipated a range of explanations were provided including: an initial over-estimation of arrears levels, and because beneficiaries have come from backgrounds where levels of arrears may be higher than average, and pre-existing knowledge of the high failure rate amongst start-ups. As a result, they expected the situation to be worse than had been realised in practice.

These perspectives from Delivery Partners – where most believe that arrears levels are in line with or better than expected – also likely reflect the more recent experience of the programme, where levels of arrears are lower in later cohorts of loans than those covered by the evaluation population. Data provided by the British Business Bank indicate that the overall expected loss rate of the programme is estimated to be between 50-60% for the financial year 2014/15 which forms the majority of the loans in the evaluation population, compared to 40-50% for the 2015/16 financial year, following the rationalisation of the number of Delivery Partners.⁴⁶

The case studies also suggest that at this stage the factors driving the level of arrears and repayment is not straightforward. A number of the Delivery Partners involved in the case studies reported that more intensive pre-application support has helped to minimise levels of arrears, both by ensuring that the programme only supports those individuals that genuinely require the loan, and by helping to develop the business plan and improve the viability of the business. Other Delivery Partners focused on the role of mentoring support in helping to minimise levels of arrears. However, in line with the findings from the econometrics evidence, there was no consistent feedback from case studies that take-up of mentoring led to lower (or higher) levels of arrears. Where this link was stated, this was based on the stated 'experience' of the Delivery Partners rather than robust 'evidence' identifying a causal link. The case studies also suggest that where the client acquisition process is more targeted, this may help to minimise levels of arrears, although this targeted approach is not appropriate for all Delivery Partners.

One other point is important: the case study evidence suggested that the move to the loan repayment being led by two core Finance Partners, rather than Delivery Partners, has led to a reduced ability for some Delivery Partners (i.e. those that previously managed their own loan repayments) to understand the extent to which individuals that they have supported are successfully re-paying their loans. This was noted to have a particular effect on mentoring support, as it was seen to prevent the opportunity for mentors to react to non-repayment, for example, by getting in touch to offer support for those individuals that are not repaying their loan.

Importance of programme elements

Finally, for this section of the report on programme delivery, the survey sought to identify evidence from beneficiaries on which element of the programme (i.e. pre-application support, loan, or mentoring) has been the most important for the development of their business/business idea.

In the Year 1 report, over half of surveyed beneficiaries stated that the loan had been the most important element of support, followed by pre-application support, with mentoring the least commonly cited element. As set out in Table 5-9 below, the loan remained the element of the programme most commonly cited as the most important, again at around half of respondents. However, as may be expected given the higher level of take-up and the time that has elapsed

⁴⁶ The overall expected loss is slightly different to arrears because some repayments will have been made, even for those that do default at some point in the life of the loan. However, given the link between the level of arrears and time – with the level of arrears expected to increase over time – this data provides a better estimate of the overall level of re-payment for the programme in different cohorts than the level of arrears at this stage.

since the pre-application support, mentoring was now the second most common element cited, by over a quarter (27%) of surveyed beneficiaries.

Table 5-9: Feedback on the most important element of the programme for the development of the business, in Year 1 and Year 2

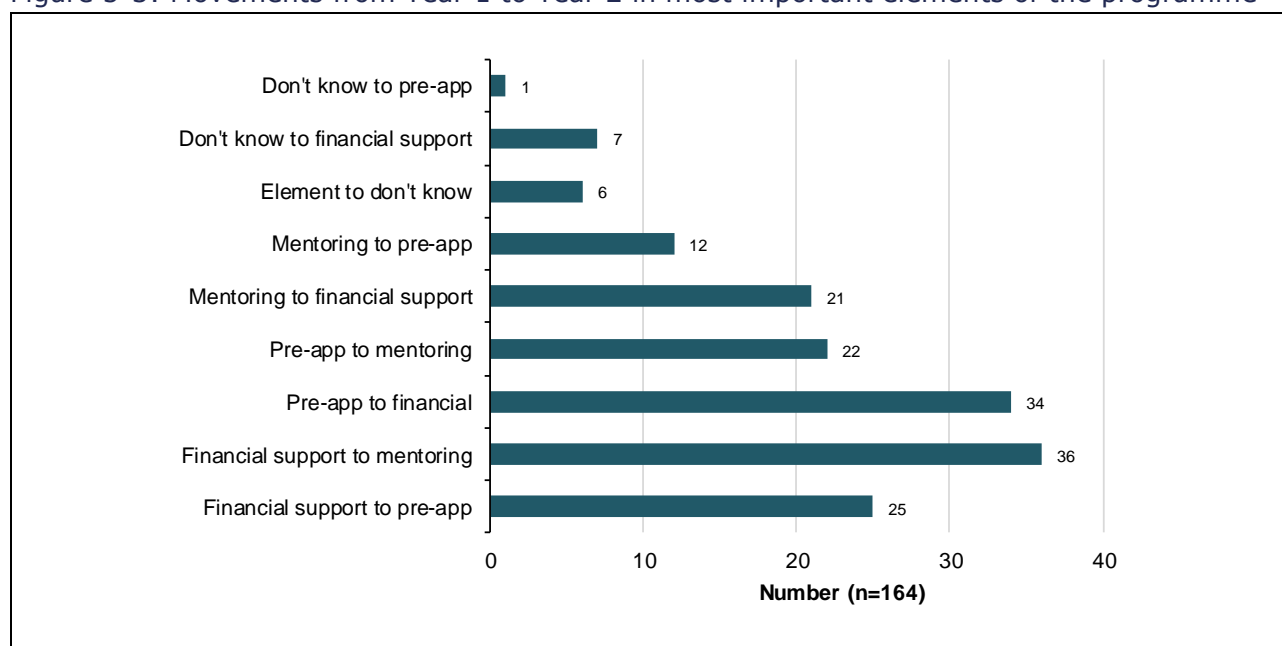
| | Year 1 survey (n=959) | Year 2 survey (n=330) |
|--------------------------------------|-----------------------|-----------------------|
| Pre-application support and guidance | 25% | 21% |
| Financial support | 52% | 50% |
| Mentoring | 19% | 27% |
| Don't know/ Can't decide | 4% | 2% |

Source: Year 1 and 2 survey

Of course, we know that not all beneficiaries have taken up mentoring. However, if only those beneficiaries that have taken-up mentoring are included (n=187), the financial support remains the element of support most commonly identified as the most important, at 45%, with mentoring at 32%.

Around half of the beneficiaries surveyed in Year 2 did *not* change their response from Year 1: 104 of the 330 beneficiaries indicated that the financial support was the most important in both years, with around 30 indicating that pre-application support or mentoring support was the most important in both years respectively. For those beneficiaries that did change their response (164 of the 330), the most common 'movements' of the most important element were from pre-application support to financial support, and financial support to mentoring, as set out in Figure 5-3 below.

Figure 5-3: Movements from Year 1 to Year 2 in most important elements of the programme



Source: Year 1 and Year 2 survey

The Year 1 report found that mentoring was seen as relatively more important for the development of the business/business idea for those individuals with lower value loans, compared to those with larger loans, and that those with loans over £8k were more likely to identify the loan as the most important element. This finding holds true in Year 2: as set out below in Table 5-10, approaching 40% of individuals with loans of up to £3k identified mentoring as the most important element of support, compared to 27% overall and 21% for those with loans of Over £8k. By contrast, well over half (56%) of those individuals with a loan Over £8k identified the financial support as the most important element, compared to 39% for those with loan Up to £3k. Consistent with Year 1, the proportion of individuals that identified pre-application support as the most important was consistent across loan values.

Table 5-10: Feedback on the most important element of the programme for the development of the business, by scale of loan

| | Pre-application support and guidance | Financial support | Mentoring | Don't know/ Can't decide |
|------------------|---|--------------------------|------------------|---------------------------------|
| Up to 3k (n=61) | 20% | 39% | 38% | 3% |
| 3k to 8k (n=164) | 21% | 51% | 27% | 1% |
| Over 8k (n=98) | 19% | 56% | 21% | 3% |

Source: Year 2 survey

However, as noted above, the case study research indicates that for some Delivery Partners, the different stages of the customer journey are regarded as one integrated support mechanism. As such, identifying which part of the customer journey is 'most important' may not reflect fully the experience of beneficiaries of the support they have experienced. An important component of this integrated model for a number of the case studies was continuity in the advisor providing support at both the pre-application and mentoring stage, helping to develop strong relationships between beneficiaries and advisors, and providing advisors with a well-developed understanding of the business, and the needs and requirements of the individual. This approach was also seen to help ensure that the process enables individuals to take a long-term perspective on the development of their business from an early stage.

Section 6: Interim assessment of impact and Value for Money

Key findings

- The estimated net GVA effects to 2017/18 from the beneficiary survey cohort (of 327 individuals) is £3.1m, increasing to £4.6m if the benefits persist for a further two-years to 2019/20.
- Scaling-up the findings of the beneficiary survey to the evaluation population (of 11,001 individuals) provides an interim estimate of the total net GVA from loans drawn down in the evaluation period of between £138m and £155m. The range reflects different approaches to scaling up, with the lower end of the range taking account of the difference between the arrears rate of the survey sample and evaluation population. This seeks to adjust for the likely response bias in the survey.
- The self-reported analysis suggests that the value for money of the programme is reasonable, with positive Benefit Cost Ratios (BCRs), indicating that the net benefits of the programme at this interim stage are estimated to exceed its costs. The main case BCR was estimated at around three to one (excluding multiplier effects) for the evaluation population. The BCR for the Year 2 survey cohort only was also around three to one, consistent with the findings on the Year 1 research.
- The estimate of the BCR depends on a number of assumptions. These assumptions included the extent to which effects persist into the future, the inclusion/exclusion of multiplier effects, the level of additionality of the programme (with varying estimates from the self-reported and econometric analysis), and the costs of the programme (with some Delivery Partners indicating that there are additional costs that are not covered by programme inputs). Therefore, whilst three to one was the main case BCR, this should be viewed from the perspective that it may be lower or higher. The sensitivity testing found a range of BCRs, which were between just over two to one to four to one.
- The BCRs for individuals taking-up mentoring support are less positive (although still offering reasonable value for money) than those who have not taken-up mentoring. However, the econometric analysis suggested that mentoring has been used particularly by individuals that are in financial distress (as indicated by the rate of arrears), and this point was made by certain Delivery Partners and business advisors.

Coverage

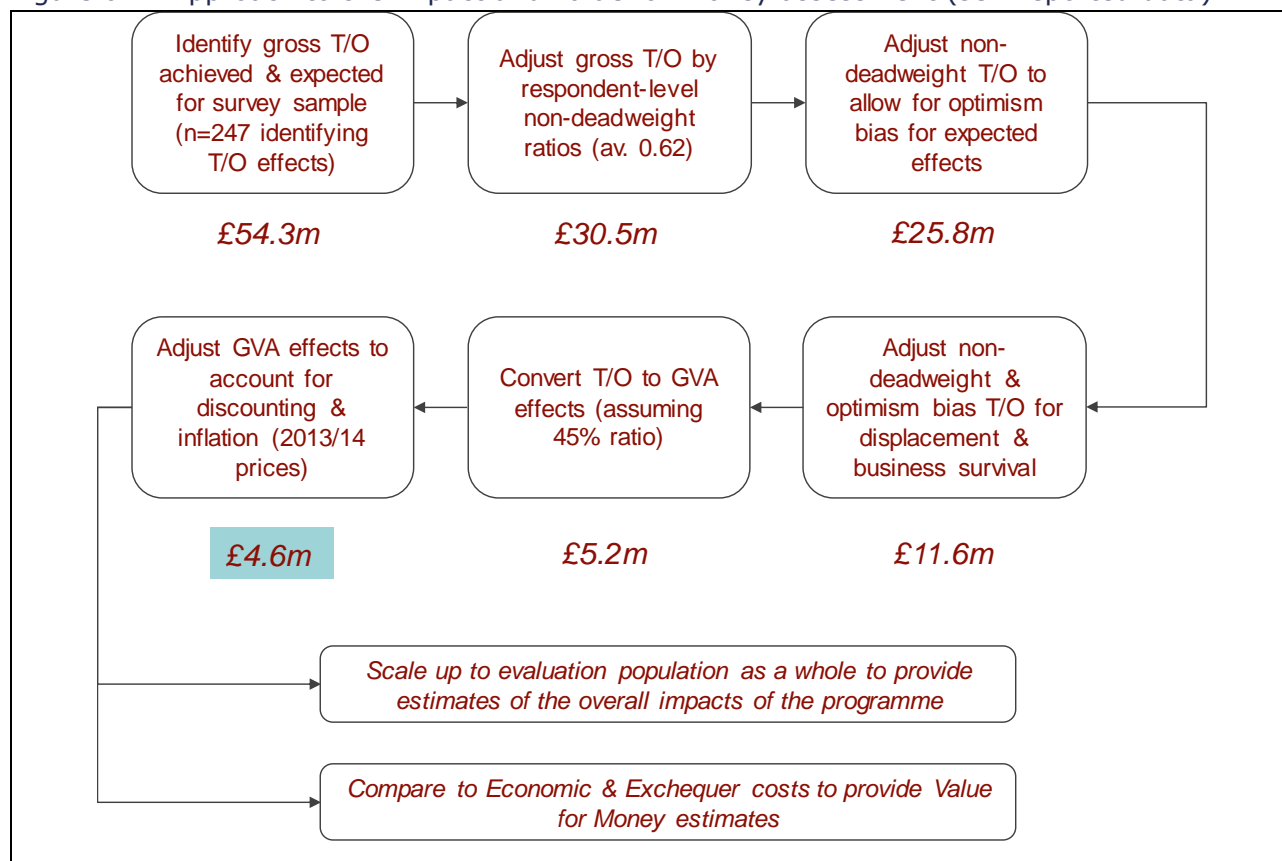
This section provides an interim assessment of the impact and value for money of the programme. Consistent with the methodology agreed for the evaluation, the interim impact assessment is based principally on the analysis of 'self-reported' evidence, and focuses on the turnover effects of business started-up/development by beneficiaries, converted to Gross Value Added (GVA), taking into account deadweight and displacement effects. Based on this evidence, the section then presents an interim assessment of value for money, comparing the GVA effects identified to the costs of delivering the programme. The data are presented both for the group of beneficiaries captured in the Year 2 survey, and scaled-up to the evaluation population (i.e.

beneficiaries that drew down loans over the November 2013 to December 2014 period), providing an interim assessment of the total impact and value for money of the programme. A number of sensitivity tests are presented in this section and the accompanying Annex B, where key assumptions are varied based on the evidence, including adjusting the assumption for additionality based on the econometric analysis. The section also provides an analysis of who appears to be benefiting the most from the programme and benchmarks the programme to similar programmes elsewhere.

Context and approach

The interim estimate of impact and Value for Money set out in this Year 2 report was estimated from the evidence provided by the survey of beneficiaries in Year 2. The focus was on the turnover generated by businesses started-up by individuals supported by the programme, adjusted from gross to net effects, and converted to Gross Value Added (GVA). The GVA data are presented both for an initial four-year period (covering up to two completed financial years, the current financial year, and the next financial year) and for a longer-term projection for a further two years (with account taken of expected survival rates). The impact period of six years (2014/15 through to 2019/20) matches the expected timescales over which the loans drawn down by the beneficiary cohort will be re-paid, and ensures that the value for money analysis is comparing costs and benefits over a consistent period. Businesses started-up by programme beneficiaries may of course continue to trade after 2019/20, however, modelling the effects of this with any certainty is not possible. An overview of the approach is set out in Figure 6-1, which has informed the scaling-up of the findings to the evaluation population.

Figure 6-1: Approach to the impact and value for money assessment (self-reported data)



It is important to note that the impact analysis was focused on the 'first round' effects of the programme i.e. the GVA associated with the loans drawn down in the evaluation period. At this point it is expected that at least half of this loan value will be recycled (plus interest) to support further loans; however, this recycling effect has not been captured in the impact assessment owing to the uncertainty in the actual levels of repayment that will be achieved by the programme. There have also been important changes in the programme, notably a tightening of the application assessment including on credit worthiness and the demonstration that other sources of finance have been considered fully, which mean that the assumptions and analysis underpinning the evaluation's impact assessment may not be applicable fully for this later cohort of beneficiaries.

It is also worth highlighting that the focus of the quantitative impact analysis in this Year 2 Report is on the turnover generated by firms, which has been converted into GVA. The incomes of beneficiaries (and the comparison group) are being tracked over time, and the intention is that the Year 3 report will undertake analysis of these data to consider the potential income effects of the programme, both where businesses have survived (i.e. individuals are drawing an income from this source), and where business have not survived (i.e. individuals are generating income from other sources). This analysis should provide some insight into the potential 'substitution' effect of the programme in terms of personal incomes (i.e. supported individuals earning income from their business rather than another employer/other source). However, note that the evaluators do not propose to gather primary evidence on 'what else' beneficiaries would have done and their expectations on alternative income under this scenario given the high level of uncertainty on this issue. Further, the analysis on personal income and business outcomes will not be combined, rather the two approaches will provide different perspectives on the effects of the programme.

Comparing the self-reported and econometric findings

As noted above, the assessment of value for money is based principally on the self-reported perspectives of beneficiaries in the Year 2 survey. This approach provides the most appropriate data on which to base estimates of additionality and net effects amongst the beneficiary group to inform the agreed value for money model. Importantly, as well as capturing data on whether businesses would have started-up or developed at all as a result of support from the programme ('full additionality'), the self-reported approach is also able to capture evidence from beneficiaries on 'partial additionality', that is whether businesses have been started-up and developed sooner, at a greater scale, or to a higher quality than would have been the case without support from the programme. The econometric analysis, by contrast, is not able to provide direct insights on these points.

However, there are inherent limitations in relying on the self-reported data, because of issues such as attribution bias. Whilst the value for money assessment seeks to account for these, such as through the use of assumptions for optimism bias, it is useful to consider the extent to which the self-reported findings are backed up by the econometric analysis. As noted above, the econometric findings themselves have weaknesses in that they are less able to pick up on the nuances of additionality such as on how SUL support may bring forward business start up, or improve business quality, or scale.

With this in mind, Table 6-1 sets out the key findings from the self-reported analysis alongside the econometric findings. On certain aspects the findings corroborate each other, which helps

to justify the approach to the value for money. In particular, the econometric analysis is supportive in that it has found a significant effect of the programme on the start-rate. Moreover, the econometric analysis has also found that beneficiaries have been more likely to report an increase in sales between years 1 and 2 than the comparison group firms.

There are inconsistencies in the evidence on the speed of start. However, it is worth noting that the wider evidence from the evaluation indicates a complicated picture here. For example, whilst for some individuals, the programme may bring forward businesses, in other cases the requirements of the pre-application process may mean that individuals spend longer developing their business plans than would otherwise have been the case. Moreover, individuals may have had the idea for their business for a long period of time before approaching the SUL programme (or indeed other forms of private or public support).

Overall, therefore, the direction of change used in the value for money assessment from the self-reported findings is broadly corroborated by the econometric analysis.

However, in relation to the extent of the effect, there is a difference between the self-reported additionality on the start rate and the coefficient that is reported by the econometric analysis. The findings from the former indicate that 35% of beneficiaries that started-up a business following support would not have started their business at all, whereas the econometric analysis suggests that there is a 13% increase in the probability of start up. There could be reasons for this discrepancy related to the differences between the groups that the econometric analysis has not been able to control for. In this section of the report, the 'core' assessment draws on the 35% finding, reflecting the approach taken to use the self-reported findings, with adjustments made for optimism bias. In Annex B, we include sensitivity analysis, which draws on a reduced level of full additionality of 13%.

Table 6-1: Comparing the self-reports and econometric findings

| | Self-reported | Econometrics | Commentary |
|----------------|--|---|--|
| Start-rate | 35% of beneficiaries reported that their business would not have gone ahead at all without support from the programme | 13% increase in the probability that a SUL beneficiary would start-up, relative to a SUL non-beneficiary. It is important to note that this marginal impact assumes that all other factors are held constant, while we know there are some (unobservable to the econometric model) differences between the two groups. | The 'high' percentage reported by self-reported feedback may reflect attribution bias. The percentage from the econometric analysis is a 'proxy' for additionality amongst the beneficiary cohort, as it is drawn based on a comparison of the rate of start-up between the two groups. The 'low' value may reflect differences between the beneficiary and comparison groups that could not be controlled for in the analysis, for example concerning the experience, attitudes, and capacities of surveyed individuals and the contexts in which they were seeking to start-up a business. |
| Speed of start | 41%** of beneficiaries reported that their | No econometric evidence on SUL support increasing the | Although a large proportion of beneficiaries do report that the start-up of their business was |

| | | | |
|--------------|--|--|---|
| | businesses would have started up anyway, but that it would have taken longer without SUL support | speed of start | brought forward more quickly than would have happened without SUL support, no evidence is available on this from the econometrics. However, it is worth highlighting that the picture on this is complicated. The nature of support may allow some businesses to start at a faster rate, while others may have progressed more slowly with – potentially – a higher quality business model thanks to the extra time spent on business planning. |
| Sales change | <p>24%** of beneficiaries reported that their business would have started up anyway, but that it would have been at a lower scale without SUL support.</p> <p>For increases in turnover, it was reported that 62% of the benefits that loan recipients derived from taking part in the programme (including to sales) would not have happened without the SUL programme.</p> | <p>The econometric evidence suggested that SUL beneficiaries are more likely to report a positive change in sales from year 1 to year 2 (beneficiaries were 19% more likely to report an increase in sales than non-beneficiaries*).</p> <p>The models were unable to find any statistical significance on absolute or relative changes in sales over time.</p> | <p>It is reassuring that the econometric evidence does show that beneficiaries are more likely to increase their sales than comparators. It is important to note that the 24% scale impact and the 19% increased likelihood of increasing sales are not comparable measures.</p> <p>In terms of the scale of turnover effects, the absence of an effect in the econometric analysis may be due to the early stages of the businesses. It is important to note that beneficiaries have <i>forecast</i> higher increases in turnover than the comparison group (average increase of 65% for beneficiaries vs 23% for the comparison group).</p> |

Note: * this result is significant at the 10% level. ** The respondents within the 41% and 24% are not necessarily mutually exclusive – i.e. a respondent may have said that their business would have taken longer and would have been smaller without SUL support.

Turnover and GVA effects for the beneficiary cohort

Gross turnover effects

The first step in the interim assessment of impact involved establishing the 'gross' turnover that has been achieved to date, and is expected for the current and next financial years, by businesses started-up or developed by beneficiaries surveyed in Year 2. This analysis included all firms that had started-up by the time of the survey and provided turnover data, including

those that subsequently closed⁴⁷. With a small number of exceptions these data corresponded to the 2014/15, 2015/16, 2016/17 (current) and 2017/18 (next) financial years. For the purpose of the modelling, all turnover data provided by respondents have been allocated to these financial years.

As set out in Table 6-2, the aggregate 'gross' turnover identified by surveyed beneficiaries was around £54m (i.e. the businesses started/developed by the beneficiaries surveyed in Year 2 are collectively estimated to generate a total turnover over these four years of £54m). The table sets out the number of businesses that the data in each year are based on – as expected, the number increased over time from 2014/15 when only around 30 businesses started-up by beneficiaries were trading and generating turnover, to approximately 200 businesses in the subsequent years.

Table 6-2: Aggregate gross turnover from businesses started-up/developed by beneficiaries (2014/15 to 2017/18)

| | Value |
|---------------------------------------|--------|
| Aggregate T/O in 2014/15 (£k) (n=33) | 2,309 |
| Aggregate T/O in 2015/16 (£k) (n=194) | 9,341 |
| Aggregate T/O in 2016/17 (£k) (n=209) | 16,698 |
| Aggregate T/O in 2017/18 (k) (n=198) | 25,970 |
| Aggregate T/O turnover (£k) | 54,318 |

Source: Year 2 Beneficiary survey

It is worth noting that approaching half (48%) of the aggregate total turnover identified by beneficiaries in the Year 2 survey was expected for the next financial year (in 2017/18), rather than generated to date. This is unsurprising given that the firms are continuing to grow and develop, and is consistent with the data from the Year 1 evaluation, in which future year's turnover accounted for around half of the total. However, this does emphasise the on-going uncertainty associated with estimates of the effects of the programme at this interim point, early in the development of the businesses.

Net turnover effects

The 'gross' turnover identified by beneficiaries surveyed in Year 2 have then been converted to 'net' turnover by applying a ratio for deadweight based on the responses by each relevant respondent to the Year 2 survey.

Across the Year 2 survey the average non-deadweight ratio was 0.62 (i.e. the average deadweight ratio was 0.38), indicating that just over a third of turnover effects would have occurred anyway. Put another way, just under two-thirds of turnover effects were additional, before accounting for displacement effects (and multiplier effects), based on self-reported

⁴⁷ Note that three individuals have been excluded from the analysis: one that reported total turnover of over £10m, and two that reported total gross turnover of over £1.5m and changes between last and current financial year of over 1000%, which were judged by the evaluators to be unrealistic. Including these three individuals would skew the results substantially.

evidence. This level did not vary by age group, by take-up of mentoring, or by whether an individual started-up a business following support from the programme or came to the programme with an existing (early-stage) business. However, as set out below, additionality was higher for those individuals that secured a loan of over £8k; these findings were consistent with the results in Year 1.

Table 6-3: Average non-deadweight ratios by loan value and age group of beneficiary (Year 2 survey)

| | Average non-deadweight ratio |
|------------------|------------------------------|
| Up to 3k (n=57) | 0.59 |
| 3k to 8k (n=159) | 0.59 |
| Over 8k (n=95) | 0.67 |
| 18-30 (n=115) | 0.62 |
| 31+ (n=196) | 0.61 |

Source: Year 2 survey

Applying the respondent-level non-deadweight ratio to each relevant respondent's gross turnover data, and aggregating this net data across all relevant respondents, provided a net turnover effect of £30.5m. This net value is equivalent to 56% of the gross data, slightly lower than the 0.62 average non-deadweight ratio would suggest; this is owing to a number of individuals that reported high levels of turnover reporting lower than average non-deadweight.

This 'net' aggregate turnover data has then been adjusted for optimism bias to provide a final estimate of net turnover generated by businesses started-up by beneficiaries surveyed in the Year 2 survey. An optimism bias of 20% has been applied to the turnover data in the 2016/17 (current) and 2017/18 (next) financial years i.e. turnover that was expected, but not yet actually generated at the point of the survey.⁴⁸ The detailed findings of this analysis described above are set out in the table below. Overall, taking into account deadweight and optimism bias, the net turnover effects accounted for 47.5% of the gross turnover value, with an aggregate net turnover contribution estimated at around £26m⁴⁹.

⁴⁸ Guidance on optimism bias is available mainly in the field of regeneration rather than innovation support. Evidence from the former Regional Development Agencies in England with respect to outputs suggested optimism bias of around 20%; this has been used for the analysis.

⁴⁹ It is worth highlighting that optimism bias has been applied to the majority of the turnover data at this stage of the evaluation, because as noted above much of the turnover effect was still subject to forecasts made by beneficiaries.

Table 6-4: Gross to net turnover effects (2014/15 to 2017/18)

| | Value |
|---|--------|
| Gross turnover effect (£k) | 54,318 |
| Net turnover effect, adjusted for deadweight (£k) | 30,550 |
| Net turnover effect, adjusted for deadweight and optimism bias (£k) | 25,779 |
| Net turnover effect, adjusted for deadweight and optimism bias as a proportion of gross turnover effect | 47.5% |

Source: Year 2 survey

GVA effects, including accounting for survival and displacement

Adjustment factors

The final step in assessing the impact of the programme using self-reported data was to convert the turnover data to GVA, using the Value for Money model developed for the evaluation. The net GVA effects were derived, with the following adjustments made:

- **Business survival** has been applied based on UK-level data from ONS⁵⁰, with the reported aggregate turnover adjusted by the following business survival rates: 100% for 2014/15 and 2015/16 (given that all the turnover has been reported as achieved), 74% for 2016/17, 58% for 2017/18, 49% for 2018/19 and 41% for 2019/20.
- **Displacement** has been applied using ratios based on the findings of the beneficiary survey. The three ratios were: 63% for new fully additional firms; 58% for new partially additional firms; and 61% for existing firms⁵¹. An overview of the evidence on displacement is set out below⁵². The survey identified quite high levels of displacement (over half of net turnover) owing to the largely local/UK markets in which firms supported by the programme were operating at the time of the survey. It is worth noting that the findings on displacement in the Year 2 survey suggested a higher level of displacement than found in Year 1. This reflects perceptions of a more

⁵⁰ Business Demography (available here

<https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/bulletins/businessdemography/2014-11-27>) Note that to ensure consistency in the analysis the same business survival rates have been assumed in the Year 2 analysis as were used in the Year 1 analysis.

⁵¹ The three categories are based on the information provided in the Year 1 survey on whether the business was trading prior to approaching Start Up Loans, and in response to the questions on additionality in the Year 1 survey. Those individuals that indicated they did not have an existing business when approaching the programme and that identified full non-deadweight are classified as 'new fully additional'; those individuals that indicated they did not have an existing business when approaching the programme and indicated partial deadweight are classified as 'new partially additional'; those individuals that indicated they came to the programme with an established business are classified as 'existing firms'.

⁵² The method used to derive the quantitative estimates of displacement, based on the BEIS/British Business Bank methodology are provided in the technical annex

competitive market – which also informs the assessment of displacement. It may also be owing to individuals being better able to define the spatial footprint of their sales with a more developed business than was possible in Year 1. It is important to highlight that this evidence on displacement does not mean that these businesses are not beneficial. Increased competition amongst firms can be important for driving productivity; however it is not possible to capture/model this with any accuracy. It is worth noting that levels of displacement were broadly consistent, at around 60% by age, loan value, take-up of mentoring and sector.

- **Converting turnover data to GVA data** using a ratio of 45%, i.e. GVA is assumed to be 45% of the turnover value – this ratio is based on ONS analysis.⁵³ It was considered whether a specific ratio for GVA/turnover could be derived from the beneficiaries through the survey, e.g. by collecting more detailed data on indicators such as the costs of bought in goods and services. However, it was agreed with the British Business Bank not to take this route, because it would increase substantially the time required to complete the survey, adding additional burden to beneficiaries and risk adversely affecting response rates. Other methods to collect detailed data to inform a bespoke analysis of GVA at firm level were also considered such as a follow-up online/e-mail based pro forma that would be completed by respondents, but similar issues were identified regarding the burden on respondents, and implications for future waves of the research. There is also the risk that respondents provide inconsistent data on such metrics, owing to differences in accounting practices.
- Adjusting for **inflation** in future costs and benefits, and **discounted** using the Treasury's standard 3.5% discount rate.

Evidence on displacement

For a programme like Start Up Loans, displacement occurs when businesses supported/created by the programme compete for resources/market share with non-assisted businesses. To inform the scale of this effect, beneficiary survey respondents were asked to identify the location of their sales, levels of competition in their main markets, and whether competitors would take up their sales if they ceased trading.

The evidence on the location of sales is set out below. Table 6-5 sets out: (A) the average proportion of sales reported by respondents (i.e. not taking account of differences in turnover between respondents); and (B) the proportions based on total current sales (i.e. applying the proportion in each area, and aggregating the sales data across all respondents). In both cases, the data suggest that local sales account for well over half of sales, with the rest of the UK accounting for around a third, and overseas sales around 10%. Care must be taken given the smaller sample size for this year. However, the data may suggest a modest shift in the sales of businesses started-up by beneficiaries over the past year: the equivalent data on the average proportion last year was 70% local, 24% in the rest of the UK, and 6% overseas.

⁵³ <http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/median-value-added-per-registered-business--2013/sty-abs-median-2013.html>. The vast majority of firms started-up/developed by beneficiaries remain micro-businesses (with 0-9 employees). The ratio for micro-businesses of 45% has therefore been used.

Table 6-5: Proportion of sales in local area, rest of the UK and outside the UK (n=245)

| | (A) Average proportion | (B) Proportion of current sales |
|----------------|-------------------------------|--|
| Local | 61% | 56% |
| Rest of the UK | 32% | 33% |
| Outside the UK | 7% | 11% |

Source: Year 2 Beneficiary survey

Beneficiaries were also asked to comment on the level of competition in their markets (Table 6-6), and what they think would happen to their sales if they were to close (Table 6-7). The findings are set out below, with data from both the Year 1 survey and the Year 2 survey. The data provide some evidence that beneficiary firms perceive a higher level of competition this year, with levels of very intense/intense competition higher in Year 2, at 52% of beneficiaries in Year 2, compared to 45% in Year 1 (the change is significant at a 10% level).⁵⁴ Further, as set out in Table 6-7, 41% of respondents in the Year 2 survey indicated that all of their sales would be taken by competitors if they were to close, compared 34% in Year 1, and by contrast 15% of respondents in Year 2 indicated that none of their sales would be taken by competitors if they were to close, compared 24% in Year 1 (both statistically significant differences, at the 5% level)⁵⁵.

Table 6-6: Level of competition experienced in markets

| | Year 1 (n=729) | Year 2 (n=240) |
|--------------------------|---------------------------|---------------------------|
| Very intense competition | 17% | 19% |
| Intense competition | 28% | 33% |
| Moderate competition | 38% | 35% |
| Weak competition | 11% | 9% |
| No competition at all | 5% | 3% |
| Don't know | 1% | 2% |

Source: Year 2 Beneficiary survey

⁵⁴ Two-sided t-test at 10% significance

⁵⁵ Two-sided t-test at 5% significance

Table 6-7: Perception of what proportion of sales would be taken by competitors if the business was to close

| | Year 1 (n=729) | Year 2 (n=240) |
|------------------------------------|-------------------|-------------------|
| Yes, all of our sales | 34% | 42% |
| Yes, some of them | 34% | 39% |
| No, no-one would take up our sales | 24% | 15% |
| Don't know | 8% | 5% |

Source: Year 2 Beneficiary survey

As discussed above, this could reflect in part beneficiaries being more realistic regarding their markets owing to greater experience of actual trading conditions than was the case one year earlier.

Results

The net GVA data derived by this analysis across the survey cohort is set out below, with a net GVA effect identified of around £3.3m.

Table 6-8 Net turnover and GVA effects for the previous, current and next financial years – 2014 Survey Cohort

| | Value (£k) |
|---|------------|
| Net turnover effect | 25,779 |
| Net additional turnover effect (accounting for survival & displacement) | 7,513 |
| Net GVA effect (accounting for inflation & discounted) | 3,132 |

Source: Year 2 Beneficiary survey

The table below sets out the net GVA effects assuming that levels of turnover for firms remains consistent over the following two-years (to 2019/20) i.e. accounting for persistence effects. Note that these data include an estimate of business survival based on ONS data, so they take into account that not all of these firms will survive. The data also assume that the effect of the programme persists uniformly based on these turnover estimates to 2019/20, and with these assumptions in place, the net GVA effect of the survey cohort increases to £4.6m.

Table 6-9: Net turnover and GVA effects to 2019/20 – 2014 Survey Cohort

| | Value (£k) |
|---|------------|
| Net turnover effect | 48,495 |
| Net additional turnover effect (accounting for survival & displacement) | 11,559 |
| Net GVA effect (accounting for inflation & discounted) | 4,609 |

Source: Year 2 Beneficiary survey

The annual estimated GVA effects by year (on which the two tables above are based) are set out below, including both discounted and undiscounted data.

Table 6-10: Net GVA by year, undiscounted and discounted (£k) – 2014 Survey Cohort

| | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---------------------------|---------|---------|---------|---------|---------|---------|
| Undiscounted - annual | 242 | 917 | 976 | 1,104 | 912 | 751 |
| Discounted - annual | 242 | 917 | 943 | 1,031 | 822 | 654 |
| Undiscounted - cumulative | 242 | 1,159 | 2,135 | 3,239 | 4,151 | 4,901 |
| Discounted - cumulative | 242 | 1,159 | 2,102 | 3,132 | 3,955 | 4,609 |

Source: Year 1 and 2 Beneficiary survey

Scaling-up the findings to the population

The £4.6m net GVA data set out above are based on the findings of the survey cohort, and based on the 327 loans drawn down by respondents to the survey (excluding the three that have been excluded from the analysis). Not all the loans drawn down contributed actual GVA. For example, some individuals have yet to start a business, and some individuals reported that the business did not have a full financial year of trading; however, we would also expect this to be the case on the evaluation population as a whole.

Scaling-up the findings of the beneficiary survey (£4.6m GVA from 327 loans) therefore provides an interim estimate of the total net GVA from loans drawn down in the evaluation period (11,001 loans) of around **£155m**.

The £155m estimate assumes that the experience of the survey cohort in terms of business performance and survival is consistent with the wider evaluation population. However, the econometric analysis indicates that there is an association between arrears and business survival, and the survey sample had a lower proportion of individuals in arrears in March 2016 (24%) than the evaluation population as a whole (44%) – which may reflect response bias amongst the survey group. The scaling-up may therefore be over-estimating the effects of the programme in the evaluation population as a whole, where the arrears data suggest that business survival may have been lower. Table 6-11 therefore sets out the scaling-up of the results from the survey to the evaluation population, adjusting for the higher rate of individuals in arrears in the evaluation population by applying the GVA per loan value for those individuals that were in arrears from the survey sample to the evaluation population in arrears.

This revised approach to scaling-up provides an adjusted GVA estimate for the evaluation population of **£138m**, 11% lower than the unadjusted estimate of £155m.

Table 6-11: Scaling-up to the evaluation population adjusted by arrears rate

| Data point | Value |
|--|--------------|
| Average GVA per loan – NOT in arrears (A) | £14.4k |
| Average GVA per loan – in arrears (B) | £10.3k |
| Evaluation population – loans NOT in arrears (C) | 6,124 |
| Evaluation population – loans NOT in arrears (D) | 4,877 |
| Estimated GVA effect – NOT in arrears (A*C) | £88.2m |
| Estimated GVA effect – in arrears (B*D) | £50.0m |
| Total GVA effects | £138.2m |

Source: Year 2 Beneficiary survey

Interim estimates of Value for Money

Approach

As noted in Section 2, a value for money model has been developed for the evaluation. The model includes estimates of the total costs of the programme for the full beneficiary survey cohort, including lending and non-lending costs. The model also includes benefits expressed in terms of net Gross Added Value (GVA) based on turnover effects, based on the analysis described above. These data are then compared through Benefit Cost Ratios (BCR) – a BCR of more than 1.0 indicates that the benefits of the programme are greater than the costs. Summary Net Present Values are also presented. As noted in Section 2, the Value for Money model has drawn on the self-reported evidence from the beneficiary survey.

Estimating costs

The costs in the model are expressed in terms of both Exchequer Costs (the costs to government of the programme) and Economic Costs (including opportunity costs and accounting for finance additionality); in both cases, the costs cover the period 2014/15 to 2019/20 and have been adjusted for inflation⁵⁶ and discounted.

Exchequer Costs

The Exchequer Costs include lending costs, covering the value of the loans provided to individuals. The model assumes a re-payment rate on the initial loan value of 50% (i.e. of the £2.3m lent to the beneficiaries that responded to the Year 2 survey, £1.15m is estimated to be re-paid) by 2019/20. This cost is offset by the inclusion in the model of interest repayments, assumed at 6% of the annual outstanding balance (non-defaulted debt, with 6% the interest rate charged under the programme) at the start of each year for Exchequer Costs.⁵⁷

⁵⁶ Using 2013/14 prices and deflator factors.

⁵⁷ Note that the Exchequer Costs are marginally higher than the Economic Costs because the full loan value is included in the Exchequer Costs as a cost in the first year of the evaluation (as this loan value has been 'spent' by the public

Non-lending costs, covering the costs associated with the delivery of the programme, including the pre-application support, mentoring support and administration, are also included. A non-lending cost per loan of £1,612 has been assumed for each loan based on data provided by SULCo in Year 1 of the evaluation. Note that these data have not been revised in Year 2, and the model assumes that all of the costs for the delivery of the programme were included in this average and that the non-lending costs occurred in the first year of the modelling period (2014/15).

Economic Costs

The Economic Costs also include the non-lending costs and the lending costs (again assuming a 50% default rate, and offset by interest re-payments). The lending costs have been adjusted to take into account finance additionality, estimated at 74%, based on the Year 1 survey evidence. Finance additionality is an estimate of the proportion of the finance secured by beneficiaries from the programme (i.e. the loan value) that would not have been provided without the programme; the 74% level was the estimate used in the Year 1 evaluation taking into account evidence from the beneficiary groups surveyed in Year 1 including whether they applied for bank/mainstream finance, and for those that did not why this was the case⁵⁸.

Economic Costs also include the public sector opportunity cost, assumed at 3.5% of the balance outstanding at the end of each year.

Estimated costs

The discounted Exchequer Costs and Economic Costs over the modelling period for the Year 2 beneficiary survey group are set out below. As noted above, for the Exchequer Costs, the full value of the loan expenditure is counted in 2014/15, when the loans were drawn down by beneficiaries covered in the Year 2 survey, with the loan value then re-covered over time via repayments, plus interest payments. For Economic Costs, the costs are spread across the modelling period, with the public sector opportunity cost from the outstanding balance and costs of default captured across the period. As noted above, non-lending costs are assumed to fall in the first year of the modelling period (2014/15) for both Exchequer and Economic Costs.

Table 6-12: Estimated Exchequer and Economic Costs – annual and cumulative (survey population)

| | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Exchequer Costs – annual | 2,576 | -381 | -300 | -248 | -156 | -115 |
| Economic Costs – annual | 640 | 215 | 194 | 165 | 106 | 80 |

sector – even though it is expected to be re-paid). This cost is covered in the Economic Costs on an annual basis, with the annual lending cost (taking into account re-payment and interest payments), adjusted for finance additionality.

⁵⁸ For further details regarding finance additionality see p53-54 in the Year 1 evaluation report here: <http://british-business-bank.co.uk/research/6827-2/>

| | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|
| Exchequer Costs – cumulative | 2,576 | 2,195 | 1,895 | 1,646 | 1,490 | 1,375 |
| Economic Costs – cumulative | 640 | 855 | 1,049 | 1,214 | 1,320 | 1,400 |

Findings for the survey cohort

BCRs for Exchequer Costs and Economic Costs for the beneficiary survey sample are set out in Table 6-13 below. The data have been presented with separate BCRs excluding and including multiplier effects.

Multipliers quantify the further economic activity stimulated by the direct benefits of an intervention. They take two principal forms: an income (“induced”) multiplier which is associated with additional income to those associated with the intervention and a supply (“indirect”) multiplier, associated with local supplier purchases. These factors can be combined into a composite multiplier. The metrics used for the multipliers of firms started by Start Up Loans beneficiaries would ideally be based on detailed primary evidence on the location of purchases of supported firms, and the location and nature of expenditure of staff in supported firms. However, it was agreed with the BBB that it was not feasible to include this level of detail in the survey, in particular given the additional burden this would place on survey respondents, with a risk to the response and attrition rates, and potential for inconsistent approaches in how respondents answer the relevant questions. The analysis has therefore used a composite multiplier of 1.25 based on the mean value for sub-regional multipliers for business development and competitiveness interventions set out in Government research on additionality.⁵⁹ The sub-regional metric has been used to reflect the largely local markets within which firms started-up/developed by individuals supported by the programme are currently operating (as set out in the findings on displacement above).

As set out in the table, the BCRs are positive in all cases (i.e. over 1), indicating that the net benefits of the programme at this interim stage for the survey cohort are estimated to exceed the costs, both excluding and including multiplier effects. The BCRs are in the range of three or four to one, suggesting positive value for money.

Table 6-13: Benefit cost ratios – Survey Cohort

| | Exchequer Costs | Economic Costs |
|--------------------------------------|-----------------|----------------|
| Total costs (£k) | 1,375 | 1,400 |
| Benefits - excluding multiplier (£k) | | 4,227 |
| Benefits - including multiplier (£k) | | 5,284 |
| BCR - excluding multiplier | 3.1 | 3.0 |

⁵⁹ BIS, Research to improve the assessment of additionality, 2009

| | | |
|---------------------------------|-------|-------|
| BCR - including multiplier | 3.8 | 3.8 |
| NPV - excluding multiplier (£k) | 2,852 | 2,826 |
| NPV - including multiplier (£k) | 3,908 | 3,883 |

BCRs by age group, loan size and mentoring take-up are set out below, based on Economic Costs. The BCRs are consistent with the overall findings in terms of age, although higher for individuals with loan values over £8k relative to smaller loan values. The data also indicate that the BCR for individuals that have *not* taken-up mentoring is higher than those that have taken-up mentoring. This finding needs to be seen in the context of the discussion in Section 5 regarding the effects of mentoring, with the evidence indicating that those taking-up mentoring have less business experience, and the relationship between take-up of mentoring and financial distress.

Table 6-14: Benefit cost ratios by survey cohort groups (Economic Costs)

| | BCR – excluding multiplier | BCR – including multiplier |
|------------------------|----------------------------|----------------------------|
| Aged 18-30 | 3.0 | 3.8 |
| Aged 31+ | 2.9 | 3.6 |
| Value - <£3k | 2.4 | 3.1 |
| Value - £3k-8k | 2.4 | 3.0 |
| Value - >£8k | 3.5 | 4.4 |
| Mentoring taken-up | 2.8 | 3.5 |
| Mentoring not taken-up | 4.3 | 5.3 |

Scaling-up the findings to the population

The BCR data set out above cover the beneficiary survey cohort specifically. Consistent with the approach to the impact assessment, the findings from the survey cohort have been scaled-up to the evaluation population as a whole (that is, the 11,001 loans that were drawn down over the November 2013 to December 2014 period).

Total costs for the evaluation population have been estimated using consistent assumptions on non-lending delivery costs, and expected re-payment rates. The total loan value from the evaluation population is £69.5m, which translates into Exchequer and Economic costs over the time period of the value for money model of around £44-45m. Set against the arrears-adjusted impact of £138m, this provides BCR ratios for the evaluation population of just over three to one.

Table 6-15: Benefit cost ratios for the evaluation population

| | Exchequer Costs | Economic Costs |
|---|-----------------|----------------|
| Total estimated evaluation population cost | £43.8m | £44.6m |
| Total estimated evaluation population benefit (including adjusting for arrears) | | £138.2m |
| BCR | 3.2 | 3.1 |

Note that the scaling-up assumes a consistent level of re-payment for the evaluation population (50%) as used in the analysis for the survey cohort. Sensitivity analysis on a higher (60%) and lower (40%) default rate are set out below.

Table 6-16: Sensitivity analysis on default rate (BCR for Economic Costs) for the evaluation population

| Sensitivity case (a): default rate at 60% | Main case BCR (default rate at 50%) | Sensitivity case (b): default rate at 40% |
|--|--|--|
| 2.8 | 3.1 | 3.5 |

Further sensitivity analysis

The impact and value for money assessment is based on self-reported data from beneficiaries, with a number of assumptions applied to the data, as set out in the narrative above. Two key assumptions have been varied to provide a further indication of the levels of sensitivity of the results to these assumptions: the years of persistence included in the model, and the level of optimism bias applied to the turnover data for the current and next financial years. This sensitivity analysis has been undertaken on the Year 2 beneficiary survey group given its greater internal validity (compared to the scaled up estimates of the BCR that are presented for the evaluation population as a whole). Annex B provides two additional sensitivity analyses, adjusting benefits based on the econometric analysis, and costs based on the findings from the Delivery Partner survey.

Persistence of turnover effects

As discussed above, the main case GVA data also assumed two years of persistence in turnover effects for businesses, or put another way that following the next financial year, for those businesses that are estimated to survive in each year their turnover is counted for a further two years to 2019/20. The table below sets out BCRs using Economic Costs and taking into account no persistence (i.e. data to 2017/18 only) through to two years of persistence in turnover effects (i.e. data to 2019/20). These data highlight the reliance in the aggregate findings on expected future turnover benefits, with a BCR of around 2:1 (excluding multipliers) if data for the last, current, and next financial years only are taken into account (and no persistence is assumed), compared to 3:1 if two years of persistence to 2019/20 is assumed.

Table 6-17: Sensitivity analysis on BCRs by persistence (based on Economic Costs) – Survey Cohort

| | BCR – excluding multiplier | BCR – including multiplier |
|--|-----------------------------------|-----------------------------------|
| To 2017/18 (i.e. zero persistence) ⁶⁰ | 2.1 | 2.6 |
| To 2018/19 (i.e. 1 years of persistence) | 2.6 | 3.2 |
| To 2019/20 (i.e. 2 years of persistence) | 3.0 | 3.8 |

Optimism bias

As discussed above, optimism bias of 20% has been applied to turnover that beneficiaries have forecast to be delivered in the 2016/17 (current) and 2017/18 (next) financial years. This represents turnover that was expected, but has not yet actually been generated at the point of the survey (with the optimism bias also therefore flowing through into the data for 2018/19 and 2019/20 in the value for money model).

The table below sets out the BCRs for three scenarios: increasing the optimism bias to 30%, the current 'main case' (20%), and the application of optimism bias (using 20% as per the main case) to future years only (2017-18 through to 2019/20 i.e. not applying any adjustment for optimism bias to the data reported for the current financial year).

⁶⁰ This means that the four years of turnover identified in the survey (2014/15, 2015/16, 2016/17, and 2017/18) are included in the analysis, but no estimated turnover in later years following this period.

Table 6-18: Sensitivity analysis on BCRs by optimism bias (based on Economic Costs) – Survey Cohort

| | BCR – excluding multiplier | BCR – including multiplier |
|------------------------------------|----------------------------|----------------------------|
| Optimism bias at 30% | 2.7 | 3.4 |
| Optimism bias at 20% (main case) | 3.0 | 3.8 |
| Optimism bias on future years only | 3.2 | 4.0 |

Commentary

Consistent with the findings set out in the Year 1 report, the findings on value for money are positive, suggesting that (based on the self-reported evidence) the programme will generate a benefit in terms of GVA effects that outweighs the costs of delivery. Indeed, the findings from Year 2 are similar to the earlier findings, with a BCR based on Exchequer Costs excluding multipliers of 3.1, compared to 2.9 in Year 1. This is consistent with the similar evidence across both years of the evaluation on self-reported additionality – as set out in Section 4. At this interim stage, the findings also continue to draw on estimated future, rather than realised, turnover effects. However, sensitivity analysis indicates that even where no future effects are identified, or where higher levels of optimism bias are applied to estimated future turnover effects, the value for money of the programme remains positive.

The findings related to the lower BCR for those individuals that have taken-up mentoring should not be taken to suggest that the mentoring support has not provided benefits. Four points are important here. First, as noted above, the econometric analysis suggested that mentoring has been used particularly by individuals that are in financial distress (as suggested by the level of arrears), and this point has also been made by certain Delivery Partners and business advisors. Mentoring take-up has also been higher amongst those with no previous business experience, which may be expected to perform 'less well' in terms of early stage growth and performance than those with previous business experience. Second, it remains early days for the mentoring to impact on business performance, and a notable proportion (over a quarter) of individuals surveyed were still receiving mentoring support at the time of the survey (40 of the 150 that reported receiving mentoring over the past year). Third, the value for money analysis is based on the performance of businesses started by individuals in terms of achieved and anticipated sales; it does not take into account the wider potential effects of mentoring on long-term prospects for growth and survival, or the skills and wider personal development of the entrepreneur. Fourth, the relationship between mentoring and business survival at this stage is indicative, given the low overall rate of business failure. If this changes over time (and potentially those individuals that have received mentoring support continue to trade), this will impact on the value for money findings.

Finally, the online survey of Delivery Partners indicated that the costs of delivering the programme are not met in full by the non-loan finance provided to them by the programme, with 15 of the 23 Delivery Partners identifying a shortfall, which in some cases was identified as being over £500 per loan. This is consistent with the evidence set out in the year 1 report. The value for money model assumes a cost per loan for delivery (covering pre-application support,

mentoring, and administration) of around £1,600 based on information provided by the BBB, but the actual costs of delivering each loan may be higher than this suggests.

It is not possible to provide a comprehensive quantitative assessment of the 'true' costs of delivery as not all Delivery Partners responded to the survey, including some major Delivery Partners, and the delivery model varies considerably across the programme. Further, some Delivery Partners deliver pre-application and mentoring support that is more cost intensive than others, and involving a much more enhanced offering, because that fits in with their wider activity. This additional activity is not something prescribed or required by the programme. Therefore, there is not a clear-cut case for including these additional costs in the main case value for money analysis, as these costs may be delivering against a broader or different set of outcomes to the programme. However, a sensitivity analysis has been undertaken adjusting the non-lending costs by approximately £170 per loan based on the findings of the Delivery Partner survey is set out in Annex B. This analysis suggests that the (downward) effect of this issue on the overall value for money of the programme is modest.

Distribution of benefits and characteristics

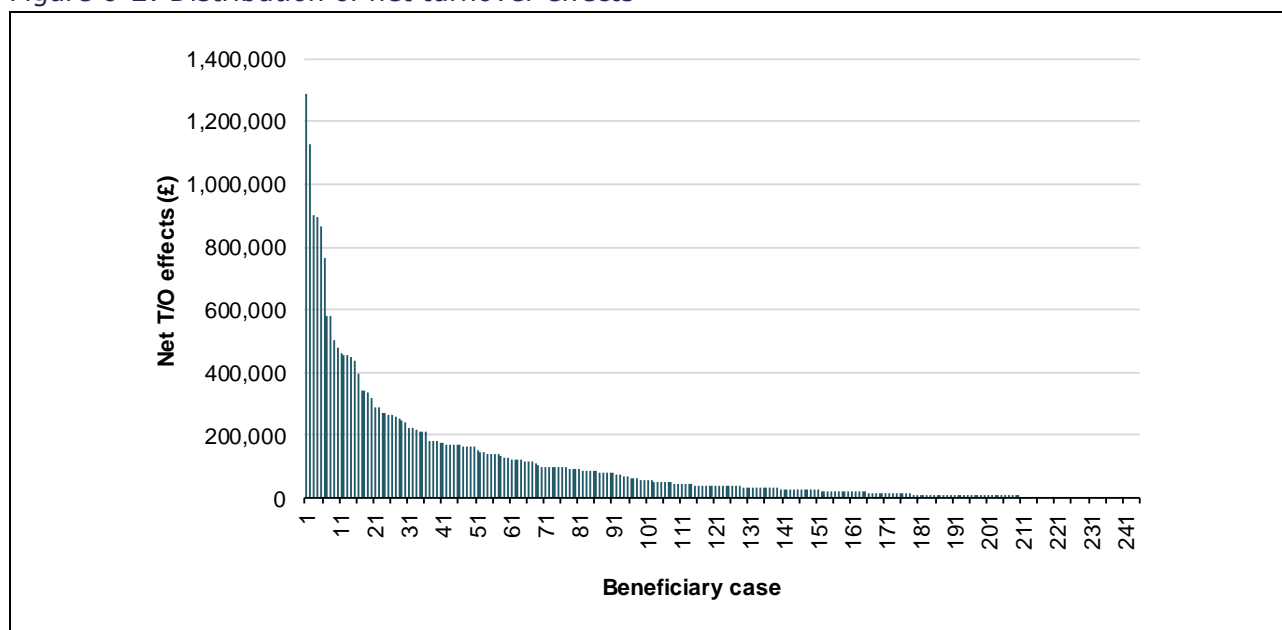
Distribution of net turnover effects

The analysis above has focused on the data from the beneficiary survey cohort as a whole. However, the benefits of the programme are not evenly distributed across the beneficiary cohort, as is expected with a programme supporting start-up businesses, which can be expected to experience different levels of growth and performance. The Year 1 Report found that the 20% of beneficiaries with the highest net turnover effects at that point accounted for 79% of the total net turnover across the beneficiaries that had started-up a business and reported turnover data. These findings suggested that the programme aligned very closely to the 80/20 Pareto principle (i.e. that around 80% of the effects will be generated by 20% of the beneficiaries).

The data from Year 2 indicated that this overall trend remained consistent, but that there has been some movement towards a slightly less skewed distribution of benefits. The Year 2 data indicated that the 20% of beneficiaries with the highest net turnover effects accounted for 70% of the net turnover effects.⁶¹ The distribution of net turnover effects is set out in Figure 6-1. This trend towards a less skewed distribution of turnover effects is likely to reflect that a lower proportion of businesses were generating no or very low levels of turnover in the Year 2 survey compared to the Year 1 survey.

⁶¹ This data again excludes the three individuals referenced in Footnote 47. If they are included, the proportion of benefits accounted by the top 20% increases to 72%.

Figure 6-2: Distribution of net turnover effects



Who is benefiting most?

As set out in Section 1, one of the objectives of the evaluation is to test whether there are particular characteristics associated with those individuals that benefit the most from the programme. To provide an indication of 'who is benefiting most' for the Year 2 Report⁶², two different perspectives are provided. First, Table 6-19 sets out the average net turnover generated up to and including the current financial year by the businesses started-up by individuals across a range of characteristics: this provides an indication of how the *absolute* effect to date varies by individual characteristics. Second, to reflect the fact that the value of the loan has varied substantially, Table 6-20 sets out the ratio between the aggregate loan value and net turnover generated up to and including the current financial year for different sub-groups of the beneficiary survey cohort. This provides an indication of the *relative* effects of the loan for the individuals, reflecting that even where the aggregate benefit is lower, this may be significant relative to the scale of the support that was received.⁶³

The data indicate that although in absolute terms higher net turnover is associated with larger loans (over £8k), when the scale of the loan is taken into account those with the lower loan values actually benefit slightly more in relative terms, with a ratio of 8.3 of net turnover to loan

⁶² The Year 1 report compared the characteristics of the 'top 20%' with the 'other 80%'. However, owing to the modest sample size of the 'top 20%' (involving under 50 individuals), this analysis has not been repeated for the Year 2 evaluation

⁶³ Note that this provides a different perspective than the overall assessment of value for money: it does not include accounting for displacement (which does not impact directly on the beneficiary), does not take into account repayment levels, does not include the costs of the delivery of the non-lending elements of the customer journey; and includes turnover generated to the current financial year only, not including forecasts for the next financial year given the uncertainty associated with these forecasts.

value, compared to 7.3 for those with loans of over £8k. However, both the absolute and relative approaches indicate that benefits in terms of turnover effects are more pronounced for those individuals supported by a CDFI and that have not taken-up mentoring; this last finding needs to be seen in light of the evidence above that those individuals may have sought mentoring for various reasons, including where they have lower levels of business experience and/or to assist when a business is facing significant challenges.

Table 6-19: Ratio between net turnover and loan value by sub-groups

| | Average net turnover generated to date (£k) | Number of observations |
|------------------------|--|-------------------------------|
| Aged 18-30 | 52.1 | 87 |
| Aged 31+ | 62.4 | 150 |
| Value - <£3k* | 17.9 | 40 |
| Value - £3k-8k | 40.6 | 113 |
| Value - >£8k | 96.6 | 83 |
| Mentoring taken-up | 49.5 | 144 |
| Mentoring not taken-up | 77.1 | 53 |
| Degree educated | 58.2 | 152 |
| Not degree educated | 59.2 | 91 |
| Female | 52.5 | 88 |
| Male | 62.0 | 155 |
| Non-white | 48.0 | 47 |
| White | 61.1 | 196 |

Source: Year 2 survey * Data excludes one individual with a loan of £2,000 with net turnover of over £550k. Including this individual increases the average net turnover to £31.6k

Table 6-20: Ratio between net turnover and loan value by personal characteristics

| | Aggregate net turnover (£k) | Aggregate loan value | Ratio of aggregate net turnover to loan value |
|------------------------|-----------------------------|----------------------|---|
| Aged 18-30 | 4,540 | 516 | 8.8 |
| Aged 31+ | 9,359 | 1,332 | 7.0 |
| Value - <£3k* | 716 | 86 | 8.3 |
| Value - £3k-8k | 4,586 | 664 | 6.9 |
| Value - >£8k | 8,017 | 1,096 | 7.3 |
| Mentoring taken-up | 7,132 | 1,027 | 6.9 |
| Mentoring not taken-up | 4,088 | 428 | 9.5 |
| CFDI | 6,419 | 716 | 9.0 |
| Non-CDFI | 7,267 | 1,102 | 6.6 |
| Degree educated | 8,849 | 1,177 | 7.5 |
| Not degree educated | 5,386 | 660 | 8.2 |
| Female | 4,622 | 660 | 7.0 |
| Male | 9,613 | 1,177 | 8.2 |
| Non-white | 2,257 | 293 | 7.7 |
| White | 11,978 | 1,544 | 7.8 |

Source: Year 2 survey * Data exclude one individual with a loan of £2,000 with net turnover of over £550k. Including this individual increases the ratio of net turnover to loan value to 14.7 (when included this one individual accounts for over 40% of all net turnover for the Under £3k group)

The analysis in Year 1 identified an initial hypothesis that it was the experience and track-record of the individual that determines 'success', rather than the nature of the business itself. For instance, in Year 1 it was suggested that those who 'benefit most' (in terms of net turnover effects in their business) were more likely to have had previous experience of self-employment and/or enterprise activity, but the sector of the business made less difference. The Year 2 data indicated that this trend has held for absolute benefits for those with previous experience of self-employment. However, when the scale of the loan is taken into account, those that were unemployed at the time of application appeared to have benefited the most to date (relative to the loan value). It is also notable that the Year 2 data indicated that individuals with businesses in SIC Codes A-F, including manufacturing industries, and SIC Codes G-I, including wholesale, retail and accommodation/food services industries, have benefited the most in terms of net turnover in both absolute and relative terms.

Table 6-21: Ratio between net turnover and loan value by business characteristics

| | Average net turnover | Ratio of turnover to loan value |
|--|----------------------|---------------------------------|
| Previous business experience (n=87) | 61.7 | 7.3 |
| No previous business experience (n=156) | 56.9 | 8.0 |
| Self-employed at application (n=81) | 69.1 | 8.0 |
| Employed at application (FT+PT) (n=76) | 61.0 | 6.8 |
| Unemployed at application (n=70) | 49.1 | 8.5 |
| A-F: Primary / production / construction (n=43) | 74.8 | 9.1 |
| SIC G-I: Wholesale / retail / transport / accommodation (n=75) | 67.2 | 8.2 |
| SIC J-N: Business / professional / scientific services (n=80) | 51.8 | 7.2 |
| SIC O-U: Public administration / education / health / arts / other services (n=46) | 40.0 | 6.2 |

As noted in Year 1, these data should not be taken too far, given they are based on self-reported data, and focus only on net turnover benefits at this interim stage; they do not capture the potential wider effects the programme on individual outcomes. There are also no simple policy responses or implications from the data, given the objectives of the programme to support all individuals across characteristics and sectors that make a sound case for support. This said, two key points emerge from the analysis.

First, an assessment of 'who is benefiting most' in terms of personal characteristics is highly dependent on whether the scale of the loan provided by the programme is taken into account. Notably, whilst those individuals with the largest loans appear to have benefited the most in terms of absolute turnover, this does not hold when the scale of loan is taken into account – indeed, those with the lowest loan values (of under £3k) appear to have benefited more relative to the scale of the finance provided. This is important given that the programme does not explicitly seek to support only high growth businesses. The level of growth ambition across beneficiaries may be something that could be considered in the future.

Second, the data suggest that business sector may be more of a factor in who is benefiting most from the programme than was found to be the case in Year 1. Manufacturing firms and those in retail/wholesale and accommodation/food appear to have experienced 'better' turnover effects to date in both relative and absolute terms when looking within the beneficiary cohort only. As

set out in Section 4, there is some corroborating evidence on business sectors, with individuals with businesses in the wholesale, retail, transport and accommodation sectors being more likely to increase employment. The findings from the beneficiary cohort may reflect in part timescales with, for example, retail, accommodation and food businesses able to reach the market and grow more quickly.

Benchmarking the programme

As set out in the Introduction to this report, one of the objectives of the evaluation was to compare, where possible, the value for money of the programme with evidence on similar programmes elsewhere in the UK, and more widely. Considerable care is needed in making these comparisons, given that the nature and contexts of the interventions may differ, and that the robustness and methodological approaches that have been taken may also differ.

A desk-based review was undertaken by the evaluation team to identify potential comparator interventions, or previous research relevant to the programme. One intervention was identified with direct relevance to the programme: the Microenterprise Loan Fund Scheme in the Republic of Ireland, established in 2010, that provides loans to newly established or growing micro enterprises at a level similar to the Start Up Loans programme, alongside pre-application and mentoring support. Previous research on public funding for Community Development Finance Institutions was also identified. The findings from the benchmarking analysis are set out below.

No formal evaluation evidence is available on the Microenterprise Loan Fund Scheme in the Republic of Ireland. However, the data do suggest that the relationship between the loan support and business survival at this stage is broadly similar to the Start Up Loans programme. The evidence on CDFI lending to businesses also suggests that the value for money of the Start Up Loans programme (at around three or four to one) is broadly consistent with this earlier evidence on CDFIs. The benchmarking will be updated in the third year of the evaluation, including drawing on any more recent robust evaluation evidence available at the time.

Table 6-22: Benchmarking

| Overview of the intervention / coverage Intervention / research | Evidence relevant to the Start Up Loans programme |
|---|--|
| <p>Microenterprise Loan Fund Scheme</p> <p>A scheme established in 2012 to provide loans to newly established or growing micro enterprises across all industry sectors of between €2,000 and €25,000 that do not meet the conventional risk criteria applied by the banks</p> <p>The programme also includes support by local enterprise agencies with their application, relevant business training and both pre and post loan mentoring assistance</p> | <ul style="list-style-type: none"> • Total approved loan value of €15.7m, from 1,062 loans, with an average loan value of €15k; slightly higher than the SUL programme over the long-term⁶⁴ • No robust evaluation evidence is yet available on impact in terms of sales or Gross Value Added, or value for money • Evidence on the effects of the programme include: 2,322 net jobs supported; and business failure rate of 8.5% (94 businesses failing of the 1,062 supported); slightly more positive than the evidence on the SUL programme to date, although this may in part reflect different trading/market/economic contexts between the UK and Ireland <p><i>Source: Microfinance Ireland: Microenterprise Loan Fund Scheme for the period, 1st October 2012 to 30th September 2016⁶⁵</i></p> |
| <p>Evaluation of Community Development Finance Institutions</p> <p>Community Development Finance Institutions (CDFIs) are specialist enterprises, often operating on a not-for-profit basis, which deliver finance and other support services to enterprises and individuals.</p> <p>An evaluation of the support provided by CDFIs was completed on behalf of UK Government on the enterprise financing element of the work of CDFIs.</p> | <ul style="list-style-type: none"> • Research estimated the public cost per unit of net economic impact delivered by the CDFI sector at local and regional level as an estimate of value for money. • Report concluded GVA created of £3.57 per pound of public investment in lending by CDFI to all market segments; within the same range as the evidence in the SUL programme • This value for money reduced £1.82 for lending to micro-enterprises; below the evidence on the SUL programme for an equivalent cohort <p><i>Source: Evaluation of Community Development Finance Institutions, Final Report</i></p> |

⁶⁴ Assuming the long-run Sterling/Euro conversion rate

⁶⁵ <http://www.microfinanceireland.ie/microfinance-ireland-progress-report-q3-2016/>

Section 7: Conclusions and implications

This final section of the report summarises the main results of the evaluation at this Year 2 stage. In doing so, we set out a reminder of the headline findings and the emerging implications that the British Business Bank may wish to consider as it continues its oversight of the Start Up Loans programme. The conclusions and implications cover the key areas that have formed the focus of the year two work, namely programme effectiveness, value for money and programme delivery (in particular mentoring and loan arrears).

Programme effectiveness

The Year 2 evaluation has re-affirmed the headline finding from the Year 1 report that the programme has had a significant and positive effect on the start-up rate of its beneficiaries, relative to the comparison group. More businesses have started up than would have been the case if the programme had not been delivered, resulting in an increase in the number of business starts across the UK.

A year on from the original research, a high majority (around 85%) of individuals in the beneficiary and comparison groups were still involved with the business that they had been seeking to start/develop. On this measure there was no significant difference between the two groups. Business survival rates were also consistent between the two-groups; it remains too soon to tell whether the programme has had a positive (or negative) effect on the business survival rate.

However, alongside the findings on the start-up rate, the analysis has found some emerging evidence that the programme has had a positive effect on business outcomes. The businesses started/developed by the beneficiary group generally remain small (with 1.2 employees on average – excluding the owner – and average turnover of £100k in 2016), and smaller than the comparison group (with 3.7 employees on average – excluding the owner – and average turnover of £160k in 2016). In the econometric analysis, a positive and significant effect of the programme was found on whether a business had increased its sales from last year to the current year, and whether a business had increased its employment from last year to the current year (both for total employment and full-time employment). Put another way, the businesses started-up or developed by individuals supported by the programme were more likely to have reported an increase in their sales or employment than the comparison group of start-ups that were not supported by the programme.

It is important to note that these effects on business outcomes were restricted to whether a business had grown its sales or employment (that is a binary 'yes' or 'no'), and not that the actual scale of growth was more pronounced for the beneficiary cohort. This may be owing to the early stages of development of these companies, and may also be driven by the fact that a significant proportion of turnover growth is forecast for future years, rather than realised to date.

The econometric analysis also suggested that there was a link between the programme and innovation, with those individuals in the beneficiary group more likely to have introduced new innovations to the market than those in the comparison group. Whilst this may appear to be a positive message for the programme, the causality is unclear; it may be that the programme has attracted individuals that are more likely to engage in innovation, rather than it is the

programme itself driving innovation (which was not observable in the econometric analysis). It will be useful to gather further evidence on this issue as the evaluation progresses.

There was no evidence from the econometric analysis of a link between the programme and levels of, or changes in, wider personal development outcomes, such as business confidence, skills or personal confidence. The overall results on business and personal confidence remained high, although there was a reduction in the average scores on self-assessment in these areas between the Year 1 and Year 2 survey. This was true for both beneficiary and comparison groups, and may reflect challenges faced by entrepreneurs as their businesses progress or wider changes to the economic context.

Alongside the findings from the econometric analysis, and consistent with the encouraging messages, the analysis of 'self-reported' data suggested that the programme has brought about its intended outcomes and that some of these would not have occurred otherwise.

Over one-third (35%) of individuals surveyed in Year 2 that had started-up a business following the programme support indicated they would not have started their business at all without support from the programme, with only 14% indicating that their business would have started at the same speed, scale and quality without support. Timing effects were also common, with 41% of individuals surveyed in Year 2 that had started-up a business following the programme support indicating the business would have started at a later date.

Overall across the beneficiary survey cohort (including both those individuals that started-up after the programme support and those that came to the programme with an established business), the average non-deadweight ratio estimated from respondents was 0.62 (i.e. the average deadweight ratio was 0.38). Put another way, the self-reported analysis suggests that nearly two-thirds (62%) of turnover effects would not have happened without the programme, before accounting for displacement effects and multiplier effects.

Feedback from the beneficiary cohort suggested higher levels of displacement were evident in Year 2 compared to Year 1, that is where businesses started-up by programme beneficiaries take market share from non-supported firms in the wider economy. This change is owing to a perception amongst respondents that they were now operating under more competitive market conditions than when surveyed in early/mid-2015, and that their market share was more likely to be taken by competitors should they close. It may also reflect in part that individuals were better able to understand their markets one year on.

Value for money

The value for money was estimated to be positive, with a Benefit Cost Ratio estimated at around three to one (consistent with the findings in Year 1), excluding multiplier effects. The Benefit Cost Ratio was sensitive to a number of assumptions in the value for money model, including factors such as the length of persistence of effects, the level of additionality (affected by whether the assumptions draw more heavily on the self-reported or econometric analysis), the inclusion or exclusion of multiplier effects, and the costs of Delivery Partner inputs. Various sensitivity analyses have been undertaken, which found that around the main case Benefit Cost Ratio of three to one, there is a wider possible range between two and four to one.

Scaling-up the results from those beneficiaries surveyed to the overall population of individuals supported over the evaluation period, and making some assumptions on how long the benefits will last (with the modelling period covering the two years to 2019/20), provided an estimated net Gross Value Added (GVA) contribution of around £150m (again sensitive to particular assumptions used). Notably, the evidence on self-reported additionality and value for money was consistent in Year 2 to the findings from Year 1.

Programme delivery

The analysis for the Year 2 evaluation in terms of programme delivery was focused particularly on the potential effects of mentoring and the rate of arrears.

The evaluation suggested that the mentoring take-up rate was approaching 80%, with around 20% of those offered mentoring not taking it up. In addition, whilst the majority of those taking up mentoring have been satisfied or very satisfied with the mentor that has been matched with them, again a notable minority (around 20%) were dissatisfied or very dissatisfied. These findings aligned with feedback from Delivery Partners, for instance on challenges relating to the capacity for mentoring and/or having sufficient mentors that match the requirements of individual beneficiaries, and also with varying demand for mentoring amongst beneficiaries.

There have been positive examples on mentoring from beneficiaries interviewed as part of the case studies. Beneficiaries have identified the importance of the skills and expertise of the mentor and the translation of these to the beneficiary business's context. Beneficiaries also highlighted the listening and problem solving of mentors, and their flexibility, as key features underpinning good mentoring relationships.

The econometric analysis did not provide statistical evidence that the mentoring support provided through the programme has had a positive influence on business or personal development outcomes. However, mentoring delivery has varied significantly across Delivery Partners, and there is a range of factors that drive whether an individual seeks mentoring assistance. These factors can have different implications for expected business and personal outcomes. For example, evidence from the case studies indicated that those with more business experience were less likely to take up mentoring and, as described below, those receiving more mentoring hours were more likely to be in arrears. Therefore, discerning the effects of mentoring on performance is challenging, and the absence of a statistical association between mentoring and business and personal outcomes does not necessarily mean that it has not made a difference for certain beneficiaries.

There was a positive association between the number of hours of mentoring and arrears. Separate analyses were undertaken on the association between different lengths of arrears and mentoring. Those in arrears for 1 month+, 3 months+ and 6 months+ were more likely to have taken up mentoring for longer (though this did not hold for those in arrears for 12 months+). This may indicate, encouragingly, that those in arrears have sought mentoring to help solve underlying challenges in their business and/or in how they can repay the loan.

The wider evidence on arrears was limited at the stage of the Year 2 analysis. The survey cohort has a lower level of arrears than the evaluation population as a whole, at 24% by March 2016 compared to an average across the evaluation population of 44%, and for the June-December

2014 period (from which the survey sample was drawn) of 39%. This reflected both the timing of the draw-down of the loan amongst the survey cohort (which was focused on the end of the evaluation period, with rates of arrears increasing over time), and response bias (i.e. those individuals in arrears were less likely to have responded to the survey). This said, the evidence does point to a relationship between the level of arrears and business survival, with those individuals with businesses still trading less likely to be in arrears; this is what would be expected, and the direction of causality is not clear.

Individuals involved in firms with multiple owners were also more likely to be in arrears in the 'short-term' (i.e. one or three months); this may reflect the different calls on finance for these businesses that may involve multiple sources of finance from different owners; this effect was not evident for longer-term arrears. Further analysis of the factors impacting on the level of arrears amongst the beneficiary survey cohort will be an important focus for the evaluation going forward.

Taken together, the findings on programme delivery highlight the variation in the delivery and take-up of certain programme components, most notably evident in relation to mentoring. Whilst variation can be useful, in particular if it addresses different types of demand or leads to innovative practice (for example where mentoring assists small businesses that are in distress), it is apparent that there are some inconsistencies in the delivery of mentoring. Whilst take-up and satisfaction with the mentor match and nature of support once taken up are both relatively high the evidence from the evaluation highlights further room for improvement. The key barriers to bringing about greater consistency in mentoring were reported to be around the capacity of mentors (in terms of the number available and their breadth of skills), and in highlighting the potential benefits to some loan recipients. Sharing of mentoring resources, and the provision of good practice guidelines on mentoring approaches and relationships may both be useful in helping to address inconsistencies.

Annex A: Econometric tables and technical annex

The econometric approach

This technical annex describes the steps taken to obtain the econometric results presented in the body of the report, as well as the full tables of results presented later in this annex. Several steps require technical clarification, including a description of how the variables have been derived, and explanations of how selection bias has been addressed (using a Heckman sample selection model), the steps we have taken to develop the model specification in light of data constraints (primarily related to sample size), and the range of sensitivity checks that have been applied to corroborate the findings.

The decision to adopt the Heckman sample selection model was taken in the earlier design of the study through a separately prepared *Methodology Paper*. It was decided that this approach to the econometric analysis was desirable, because it explicitly seeks to address the issue of 'selection bias' – namely the possibility of detecting positive (or negative) effects associated with the programme that stem not from Start Up Loans itself but through selection (discussed in more detail later in this Annex) – and in a way that takes account of unobservable factors. Selection bias may mean that positive effects are simply due to selection into the programme, e.g. the programme supporting those individuals with 'better' business ideas or with other characteristics that make them more likely to start, survive and grow their business. Other approaches, such as propensity score matching (PSM), could have been deployed, which would seek to account for selection issues. However, in the case of PSM, this only does so through observable co-variates. As there are likely to be unobservable characteristics that may play a role in self-selection, the Heckman sample selection model was preferred.

Developing the data

For the Year 2 analysis, two years of survey data were available to develop a range of outcome and explanatory variables. The full set of variables with descriptions of their construction are presented in **Table A-1** below.

Table A-1: Summary of variable descriptions

| Variable | Description | Code |
|------------------------------------|---|------------------------------------|
| Outcome/dependent variables | | |
| Start-rate | A binary variable that indicates if a business has already recorded an income or an expense. <i>This variable excludes all beneficiaries that had already started prior to approaching Start Up Loans.</i> | 1=has started 0=has not |
| Speed (continuous) | The speed with which a business starts-up, defined as the time taken between the date the business idea was conceived and the date the first income or expense was recorded, measured in years. | |
| Survival (binary) | A binary variable that indicates if a firm has started and is still trading, or otherwise, <i>This variable excludes all businesses that have not started up.</i> | 1=has survived 0=has not |
| Sales change (binary) | A binary variable that indicates whether a firm has reported an increase in sales from last year to the current year. | 1=has increased sales 0=has not |
| Sales change (absolute, logged) | A variable that measures the value of the change in sales from last year to the current year. | |

| | | |
|--|--|--|
| | <i>Due to the log transformation of this variable, all businesses with zero or negative changes in sales are excluded from the analysis. The interpretation of this variable is, thus, with reference only to businesses that have reported sales growth.</i> | |
| Profit (binary) | A binary variable that indicates whether a firm has reported a profit in the Year 2 survey. | 1=is profitable 0=is not |
| Profit (absolute, logged) | A variable that measures the value of profit reported in the year 2 survey. <i>Due to the log transformation of this variable, all businesses with zero or negative levels of profit are excluded from the analysis. The interpretation of this variable is, thus, with reference only to businesses that are profitable.</i> | |
| Employment change (binary) | A binary variable that indicates whether a firm has reported an increase in employment from last year to the current year. | 1=has increased employment 0=has not |
| Employment change (absolute) | A variable that measures the value of the change in employment from last year to the current year. | |
| Full-time employment change (binary) | A binary variable that indicates whether a firm has reported an increase in full-time employment from last year to the current year. | 1=has increased full-time employment 0=has not |
| Full-time employment change (absolute) | A variable that measures the value of the change in full-time employment from last year to the current year. | |
| Innovate | A binary variable that indicates whether a firm has reported introducing a 'new to the market' innovation. | 1=has introduced a new to the market innovation 0=has not |
| Export (>0%) | A binary variable that indicates whether a business derives any of its sales from overseas | 1=has exported 0=has not |
| Export (>10%) | A binary variable that indicates whether a business derives more than 10% of its sales from overseas | 1=has exported 0=has not |
| Export (>25%) | A binary variable that indicates whether a business derives more than 25% of its sales from overseas | 1=has exported 0=has not |
| Business confidence | A binary variable that indicates whether the owner reports a score of 4 or 5 (out of 5) on the question: "how confident would you say you ... [in] ... running and managing a business" | 1=is confident 0=is not |
| Skills | A binary variable that indicates whether the owner reports a score of 4 or 5 (out of 5) on the question: "how would you rate your overall business skills and knowledge?" | 1=has good business skills and knowledge 0=does not |
| Personal confidence | A binary variable that indicates whether the owner reports a score of 4 or 5 (out of 5) on the question: "how confident would you say you ... [in] ... your personal confidence in things you do outside of business" | 1=is confident 0=is not |
| Change in business confidence | A binary variable that indicates whether an owner reported an increased score for the business confidence question from the Year 1 to the Year 2 survey. | 1=increased score 0=unchanged or decreased score |
| Change in skills | A binary variable that indicates whether an owner reported an increased score for the skills question from the Year 1 to the Year 2 survey. | 1=increased score 0=unchanged or decreased score |
| Change in personal confidence | A binary variable that indicates whether an owner reported an increased score for the personal confidence question from the Year 1 to the Year 2 survey. | 1=increased score 0=unchanged or decreased score |
| Arrears (1 month +) | A binary variable that indicates whether the owner is in arrears, defined as having missed 1 month of payments | 1=is in arrears 0=is not |
| Arrears (3 month +) | A binary variable that indicates whether the owner is in arrears, defined as having missed 3 months of payments | 1=is in arrears 0=is not |
| Arrears (6 month +) | A binary variable that indicates whether the owner is in arrears, defined as having missed 6 months of payments | 1=is in arrears 0=is not |

| | | |
|---|--|---|
| Arrears (12 month +) | A binary variable that indicates whether the owner is in arrears, defined as having missed 12 months of payments | 1=is in arrears 0=is not |
| <i>Explanatory/independent variables</i> | | |
| Start Up Loans | A binary variable that indicates whether an individual has benefited from the SUL programme | 1=beneficiary of SUL 0=non-beneficiary |
| Owner age | Age of the owner in years | |
| Owner age squared | Age of the owner in years squared | |
| Previous business experience | A binary variable that indicates whether an owner has previous experience in business | 1=has previous business experience 0=has none |
| Degree | A binary variable that indicates whether an owner has holds a degree-level qualification | 1=holds a degree 0=does not |
| Female | A binary variable that indicates the gender of the owner | 1=female 0=male |
| Unemployed pre-start | A binary variable that indicates whether an owner has was unemployed prior to starting the business | 1=was unemployed 0=was not |
| Multiple owners | A binary variable that indicates whether the owner is involved in the business with other partners | 1=has business partners 0=sole trade |
| Region (dummy) | A dummy variable that indicates the geographical residence of the owner across 5 broad regions: 0=South (the baseline) 1=London 2=North 3=Midlands 4=Celtic | |
| Sector (dummy) | A dummy variable that indicates the sector the business is active in across 4 broad categories: 0=SIC A-F: "primary/production/construction" (the baseline) 1=SIC G-I: "wholesale/retail/transport/accommodation" 2=SIC J-N: "business/professional/scientific services" 3=SIC O-U: "public administration/education/health" | |
| Sales in 2015 | The value of sales the last financial year (2015). | |
| Business age | The age of the business in years | |
| Business age squared | The age of the business in years squared | |
| Business plan (pre-start) | A binary variable that indicates whether a business plan was written prior to starting up | 1=was written pre-start 0=was not |
| Business plan prepared | A binary variable that indicates whether a business plan was written at any time | 1=has been written 0=has not |
| External finance | A binary variable that indicates whether a business has received any non-SUL external finance | 1=has received external finance 0=has not |
| Non-financial support | A binary variable that indicates whether a business has received any non-SUL non-financial (business) support | 1=has received non-financial support 0=has not |
| SUL mentoring | A binary variable that indicates whether a beneficiary has received Start Up Loans mentoring | 1=has received SUL mentoring 0=has not |
| SUL mentoring hours | The number of hours of Start Up Loans mentoring received | |
| Any mentoring (including SUL) | A binary variable that indicates whether a business has received any form of mentoring (including through Start Up Loans) | 1=has received any mentoring 0=has not |
| Non-SUL mentoring | A binary variable that indicates whether a business has received non-SUL mentoring | 1=has received non-SUL mentoring 0=has not |
| Other activities | A binary variable that indicates whether an owner is involved in other activities, such as another business or in education | 1=involved in other activities 0=is not |

| | | |
|---------------------|---|--|
| Competition | A binary variable that indicates whether an owner perceives their sector of operation as highly competitive | 1=highly competitive 0=not highly competitive |
| Inverse Mills ratio | The Heckman variable derived from the first stage equation. | |

As two different surveys were available to draw data from, decisions had to be made on which to use for the development of different variables. Where possible, every attempt was made to keep the variables consistent. For questions on sales and employment, for example, each survey collected data on the company's performance in the 'last', 'current' and 'next' financial years. The last of these was a projection, and the 'current' year's sales was also a semi-projection depending on how far through the financial year the company was. Thus, there is an element of cross-over between the two sources of data – 'current' sales in the Year 1 survey, ought to correspond to 'last' year's sales in the Year 2 survey. Initially, the preferred option would be to exploit the two sources of data and compute changes between the two surveys. However, as the comparison group was boosted for this year's analysis, this approach would exclude a number of entrepreneurs' businesses from the analysis of this outcome. In addition, there was a relatively poor level of correlation between sales figures reported in the Year 1 and Year 2 surveys, where they should be similar, which may be partly due to the fact that 'current' sales still involve an element of forecasting and the differences in the timing of financial years. The adopted approach, as presented in the report's results, was to use last and current performance from the Year 2 survey to mitigate these issues. For changes in business confidence, skills and personal confidence, the variables measure the change in scores between the two surveys.

Table A-2 presents a full set of descriptive statistics for all the outcome and explanatory variables, split by the beneficiary and comparison groups.

Table A-2: Summary of descriptive statistics

| Outcome/dependent variables | Beneficiary group | | | | | Comparison group | | | | |
|--|-------------------|-------|--------|------|--------|------------------|--------|---------|------|-----------|
| | N | Mean | SD | Min | Max | N | Mean | SD | Min | Max |
| Start-rate | 233 | 0.98 | 0.15 | 0 | 1 | 281 | 0.85 | 0.36 | 0 | 1 |
| Speed (continuous) | 280 | 0.36 | 0.85 | 0 | 6.75 | 156 | 0.51 | 1.86 | 0 | 14.50 |
| Survival (binary) | 321 | 0.87 | 0.34 | 0 | 1 | 250 | 0.90 | 0.30 | 0 | 1 |
| Sales change (binary) | 171 | 0.63 | 0.48 | 0 | 1 | 132 | 0.48 | 0.50 | 0 | 1 |
| Sales change (absolute, logged) | 108 | 10.22 | 1.55 | 4.61 | 14.08 | 64 | 10.02 | 1.95 | 4.94 | 13.96 |
| Profit (binary) | 241 | 0.41 | 0.49 | 0 | 1 | 173 | 0.65 | 0.48 | 0 | 1 |
| Profit (absolute, logged) | 74 | 9,925 | 12,501 | 100 | 57,000 | 83 | 55,010 | 192,994 | 6 | 1,250,000 |
| Employment change (binary) | 220 | 0.13 | 0.34 | 0 | 1 | 159 | 0.08 | 0.27 | 0 | 1 |
| Employment change (absolute) | 220 | 0.02 | 1.12 | -11 | 4 | 159 | 0.06 | 1.51 | -8 | 14 |
| Full-time employment change (binary) | 219 | 0.09 | 0.29 | 0 | 1 | 159 | 0.05 | 0.22 | 0 | 1 |
| Full-time employment change (absolute) | 219 | 0.07 | 0.60 | -2 | 5 | 159 | 0.14 | 1.21 | -2 | 14 |
| Innovate | 251 | 0.21 | 0.41 | 0 | 1 | 201 | 0.16 | 0.37 | 0 | 1 |
| Export (>0%) | 225 | 0.29 | 0.46 | 0 | 1 | 183 | 0.26 | 0.44 | 0 | 1 |
| Export (>10%) | 225 | 0.13 | 0.34 | 0 | 1 | 183 | 0.16 | 0.37 | 0 | 1 |

| | | | | | | | | | | |
|-------------------------------|-----|------|------|---|---|-----|------|------|---|---|
| Export (>25%) | 225 | 0.09 | 0.29 | 0 | 1 | 183 | 0.14 | 0.35 | 0 | 1 |
| Business confidence | 329 | 0.84 | 0.37 | 0 | 1 | 313 | 0.77 | 0.42 | 0 | 1 |
| Skills | 329 | 0.62 | 0.49 | 0 | 1 | 313 | 0.60 | 0.49 | 0 | 1 |
| Personal confidence | 329 | 0.88 | 0.33 | 0 | 1 | 312 | 0.83 | 0.37 | 0 | 1 |
| Change in business confidence | 324 | 0.12 | 0.33 | 0 | 1 | 185 | 0.16 | 0.37 | 0 | 1 |
| Change in skills | 323 | 0.17 | 0.38 | 0 | 1 | 185 | 0.21 | 0.41 | 0 | 1 |
| Change in personal confidence | 323 | 0.15 | 0.36 | 0 | 1 | 183 | 0.14 | 0.35 | 0 | 1 |
| Arrears (1 month +) | 305 | 0.24 | 0.43 | 0 | 1 | - | - | - | - | - |
| Arrears (3 month +) | 305 | 0.16 | 0.37 | 0 | 1 | - | - | - | - | - |
| Arrears (6 month +) | 305 | 0.12 | 0.33 | 0 | 1 | - | - | - | - | - |
| Arrears (12 month +) | 305 | 0.07 | 0.25 | 0 | 1 | - | - | - | - | - |

| Explanatory/independent variables | Beneficiary group | | | | | Comparison group | | | | |
|---|-------------------|--------|---------|------|-----------|------------------|---------|---------|------|-----------|
| | N | Mean | SD | Min | Max | N | Mean | SD | Min | Max |
| Start Up Loans | 329 | 1.00 | 0.00 | 1 | 1 | 313 | 0 | 0 | 0 | 0 |
| Owner age | 317 | 37.57 | 11.20 | 19 | 73 | 312 | 42.79 | 12.65 | 17 | 76 |
| Owner age squared | 317 | 1,536 | 936 | 361 | 5,329 | 312 | 1,990 | 1,125 | 289 | 5,776 |
| Previous business experience | 323 | 0.33 | 0.47 | 0 | 1 | 286 | 0.35 | 0.48 | 0 | 1 |
| Degree | 324 | 0.58 | 0.49 | 0 | 1 | 281 | 0.66 | 0.48 | 0 | 1 |
| Female | 317 | 0.38 | 0.49 | 0 | 1 | 313 | 0.36 | 0.48 | 0 | 1 |
| Unemployed pre-start | 320 | 0.29 | 0.46 | 0 | 1 | 271 | 0.19 | 0.39 | 0 | 1 |
| Multiple owners | 324 | 0.26 | 0.44 | 0 | 1 | 290 | 0.41 | 0.49 | 0 | 1 |
| Region: South | 315 | 0.22 | 0.42 | 0 | 1 | 313 | 0.25 | 0.43 | 0 | 1 |
| Region: London | 315 | 0.23 | 0.42 | 0 | 1 | 313 | 0.13 | 0.33 | 0 | 1 |
| Region: North | 315 | 0.18 | 0.38 | 0 | 1 | 313 | 0.13 | 0.33 | 0 | 1 |
| Region: Midlands | 315 | 0.23 | 0.42 | 0 | 1 | 313 | 0.10 | 0.30 | 0 | 1 |
| Region: Celtic | 315 | 0.14 | 0.35 | 0 | 1 | 313 | 0.39 | 0.49 | 0 | 1 |
| Sector: SIC A-F: "primary/production/construction" | 329 | 0.18 | 0.39 | 0 | 1 | 304 | 0.13 | 0.34 | 0 | 1 |
| Sector: SIC G-I "wholesale/retail/transport/accommodation" | 329 | 0.29 | 0.45 | 0 | 1 | 304 | 0.20 | 0.40 | 0 | 1 |
| Sector: SIC J-N "business/professional/scientific services" | 329 | 0.32 | 0.47 | 0 | 1 | 304 | 0.37 | 0.48 | 0 | 1 |
| Sector: SIC O-U: "public administration/education/health" | 329 | 0.21 | 0.41 | 0 | 1 | 304 | 0.30 | 0.46 | 0 | 1 |
| Sales in 2015 | 212 | 52,582 | 141,980 | 0 | 1,900,000 | 150 | 122,693 | 313,120 | 0 | 2,500,000 |
| Business age | 316 | 2.17 | 0.55 | 0.42 | 4.42 | 232 | 2.23 | 1.05 | 0.17 | 4.58 |
| Business age squared | 316 | 5.00 | 2.86 | 0.17 | 19.51 | 232 | 6.09 | 5.13 | 0.03 | 21.01 |
| Business plan (pre-start) | 315 | 0.59 | 0.49 | 0 | 1 | 180 | 0.45 | 0.50 | 0 | 1 |
| Business plan prepared | 322 | 1.00 | 0.06 | 0 | 1 | 212 | 0.80 | 0.40 | 0 | 1 |
| External finance | 327 | 0.39 | 0.49 | 0 | 1 | 266 | 0.25 | 0.43 | 0 | 1 |
| Non-financial support | 328 | 0.51 | 0.50 | 0 | 1 | 313 | 0.48 | 0.50 | 0 | 1 |
| SUL mentoring | 251 | 0.73 | 0.45 | 0 | 1 | 313 | 0 | 0 | 0 | 0 |
| SUL mentoring hours | 115 | 14.27 | 14.74 | 1 | 57.50 | - | - | - | - | - |
| Any mentoring (including SUL) | 264 | 0.78 | 0.42 | 0 | 1 | 313 | 0.13 | 0.33 | 0 | 1 |
| Non-SUL mentoring | 327 | 0.16 | 0.37 | 0 | 1 | 313 | 0.13 | 0.33 | 0 | 1 |
| Other activities | 282 | 0.37 | 0.48 | 0 | 1 | 260 | 0.47 | 0.50 | 0 | 1 |
| Competition | 234 | 0.53 | 0.50 | 0 | 1 | 186 | 0.45 | 0.50 | 0 | 1 |

Dealing with selection bias – the Heckman approach

A key conceptual issue in the analysis is the possibility of detecting positive (or negative) effects associated with the programme that stem not from Start Up Loans itself, but through selection. Because the essence of the programme is a loan (secured after an application) to start-up/develop a business, then lending may potentially be orientated more towards those individuals with 'better' business ideas and/or with a better understanding of the sources of finance available to them, and/or with a greater tendency to draw on external support. As a result these individuals' businesses may be more likely to survive, grow and be profitable in order to provide greater assurance of repayment of the loan. That is, self-selection into the programme may mean that we could observe a statistically significant difference between the beneficiary and control groups in terms of their businesses performance that is independent of the programme, but rather due to the characteristics of each group.

To deal with this potential issue, a Heckman two-step sample selection model has been specified. The first stage estimated the probability of an individual being supported by Start Up Loans using a probit model. The dependent variable indicates if an individual is in the beneficiary group or the comparison group, and the model controls for a number of explanatory variables that would be observable at the point of application, including the age of the owner, whether they had previous experience in business, held a degree-equivalent qualification, their gender, their employment status prior to starting-up, their region of residence, and the sector of their proposed business.

An important step in this first stage equation was to specify a unique selection variable. This needs to be correlated with becoming a programme beneficiary, but uncorrelated with the outcome of interest. Several options were trialled using the information available in the survey, including the desire of the individual to be their own boss, and their perception of the UK as a viable place to become an entrepreneur.

The results of the first stage equation suggest a positive association between a range of characteristics, including having previous business experience and being unemployed at the point of application, with becoming a SUL beneficiary (see **Table A-5**). A negative association was evidenced between being a SUL beneficiary and an applicant's business involving multiple owners. Of the unique selection variables, the former - the desire of the individual to be their own boss - proved to be the strongest instrument. It was the only variable that was significant in the selection model, but it also had the most significant impact on model fit, and was, as such, used in the final analysis. An inverse Mills ratio was computed from the first stage of the model, and is used as an input into the second stage equation as a variable to control for selection.

The second stage of the two step Heckman model explains scheme effects, using a range of explanatory variables, including the SUL programme – discussed in the next sub-section.

Model specification and sensitivity checks

The specification of the econometric models was based on variables that relate the entrepreneur's personal characteristics, business characteristics, and a range of strategic variables. An important challenge for the Year 2 report was to balance the need for a robust model specification for each outcome variable with issues related to the size of samples achieved.

See Table A-2 above for a summary of the observations available for each outcome variable. As this does not take into account missing observations in explanatory variables, these figures represent the maximum sample sizes available for each outcome.

This meant that the choice of explanatory variables included in each model needed careful consideration. This was achieved by specifying, first, a 'core' model with a key set of explanatory variables, and supplementing this core model with a range of additional variables. See **Table A-3** for the variables available, based on the survey data.

Table A-3: Summary of the 'core' explanatory variables

| Thematic category | Core variables | Additional variables |
|---------------------------------|--|---|
| Personal characteristics | <ul style="list-style-type: none"> • Age of owner (and age-squared) • Gender • Geographic residence (dummy variables) • Whether they had previously owned a business • Whether they were economically active prior to starting their business • Degree educated | <ul style="list-style-type: none"> • Ethnicity |
| Business characteristics | <ul style="list-style-type: none"> • Age of the business (and age-squared) • Whether the business has multiple owners • Sector of operation (dummy variables) • Sales in Year 1 (scaling variable) | |
| Strategy characteristics | <ul style="list-style-type: none"> • Whether the firm is a Start Up Loans beneficiary • Whether the business had a business plan (with variations related to the timing of its creation), either: <ul style="list-style-type: none"> ○ Business plan (pre-start) ○ Business plan prepared | <ul style="list-style-type: none"> • Levels of business investment • External finance (non-Start Up Loans) • Non-financial support (non-Start Up Loans) • SUL mentoring • SUL mentoring hours • Any mentoring (including SUL) • Non-SUL mentoring • A range of interaction variables on the above additional strategy characteristics • Competition in the market • Engaged in other activities |

For each outcome variable we iteratively added the 'additional variables', and based on their significance and impact on model fit, we selected the best performing model specifications for the final results, as presented in the main body of the report. Where several/combinations of these additional variables proved significant, all were included. Other variables, such as competition in the market (Competition) and an owner being engaged in other activities (Other

activities) were not significant in any specifications and did not feature in the final models presented in the report. Detailed results tables reflecting this iterative process were provided to the British Business Bank.

As part of this process, some variables were removed from the analysis altogether, and other variables that were used last in the Year 1 analysis have had to be substituted. On the former, data on ethnicity were tested in the model specification and dropped from the analysis for two reasons. First, the variable had a number of missing observations which severely constrained the sample size. Second, we were only able to make a very crude distinction between ethnicities (white and non-white). This was due to differences between the data sources used to develop this variable. Moreover, the variable was largely insignificant in the modelling and added little to the model fit. On the latter, compared with the Year 1 analysis, we substituted the variable on 'levels of business investment' (which had been used as a variable to control for the scale of each business) for a variable measuring the 'level of sales' in the preceding year. This was due to the variable on investment being broadly defined (it included all forms of business expenditure in addition to business investment) and challenging to interpret as a result, in particular as the businesses under consideration mature. Other options were trialled, including numbers of staff, however the levels of sales proved to be the best performing and so was used as a variable to control for the size of the company.

Once the final model specifications were decided upon, a suite of sensitivity checks were applied to test how robust the results were to the inclusion/exclusion of different sets of outliers and different cuts of the data. As start-ups are very diverse, it is not always clear which data are of poor quality, and so this process allowed for the testing of different criteria in order to see how the results were impacted. As the descriptive statistics showed, one firm was not even an SME, with 300 employees, making it important to check how sensitive the analysis was to the inclusion/exclusion of such businesses. The criteria used are outlined in **Table A-4** below.

Table A-4: Summary of the criterion used for the sensitivity analysis

| Criteria | Description |
|--------------------------------------|--|
| Bespoke | A bespoke criterion based on individual entrepreneurs with minor data inconsistencies (not considered sufficient to exclude from the main analysis) |
| Toddlers | Excluding all businesses trading for less than one year |
| Survivors | Excluding all businesses that had ceased trading (or those that did not feature in both surveys) |
| Sales outliers | Two exclusion criterion based on 1%/99% and 5%/95% confidence intervals (all extreme outliers excluded) |
| Employment outliers | Two exclusion criterion based on 1%/99% and 5%/95% confidence intervals (all extreme outliers excluded) |
| Sales and employment outliers | A combination of the two above |
| Business age inconsistencies | Due to the way in which the business age variable is derived (based on two dates, the point in time when either an income or an expenditure is recorded for the first time), two exclusion criterion are applied, one if a business has not recorded both an income and an expenditure, and another if there is a gap larger than 1 year between recording an income and expenditure for the first time. |

The sensitivity checks broadly demonstrated that the key results were robust to the presence of outliers, though a few points are noteworthy on this testing. For the sales change outcome (i.e. whether or not a firm increased its sales from Year 1 to Year 2), excluding young enterprises strengthened the findings, while excluding firms with more extreme changes in sales and employment weakened the strength of the findings, in some cases pushing the level of significance outside the 10% range (i.e. it became statistically significant). Similar results were evident for changes in full-time employment (i.e. whether or not a firm increased its full-time employment from Year 1 to Year 2). However, as we were analysing start-ups, it is important to note that these enterprises with large changes in sales and employment were viewed as important parts of the mix of firms and warranted inclusion in the analysis. For sales change and full-time employment change, the important thing to note is that there was evidence of an impact of the programme on the performance of the 'average' majority of firms, albeit weak, but that once the high (and low) performers were included, the confidence in the impact of the programme was strengthened. In other words, firms supported by the programme were more likely to be highly successful (in terms of their propensity to report increases in sales and employment) and less likely to perform badly. It is important to iterate that the outcome variables for sales and employment indicated whether or not a firm increased their sales or employment, and did not refer to the magnitude of change.

Longitudinal analysis

The design of the evaluation provides an opportunity to collect data in multiple time periods, and with two rounds of survey work now completed there are in theory up to three time points for data on business performance⁶⁶. The current approach to the econometric analysis, as outlined above, does take advantage of longitudinal nature of the data by modelling change over time in many of the variables, as well as by incorporating time-lagged variables (such as sales in the previous year for analysis of the sales outcome variable). These models are, however, cross-sectional by nature and do not take advantage of a panel set up.

A basic panel set up was undertaken to examine the evidence on business performance variables of employment change and sales change (see **Table A-20**). The main findings from this basic panel set up were as follows:

- There was a positive association between SUL and absolute employment change, albeit at the 10% level of significance. This was robust to changes in the model specification.
- There was evidence of an association between SUL and the log of sales change. This was robust to changes in the model specification.

These findings provide evidence that the programme may be having an effect on the absolute change in employment and sales. However, a major caveat to these findings is that the analysis was not extended to take account of selection, which the Heckman sample selection model has been important in addressing. Further work on a panel set up that seeks to take account of selection issues could be undertaken, but was outside of the scope of the Year 2 study.

⁶⁶ As for each survey data was collected on current and past (as well as future) performance.

Results tables

The following results tables provide the detailed counterparts to the summary results provided in the main report. All models specifications employed the Heckman two-step selection model. Unless specified, the model specified represents the second stage equation. If the dependent variable was binary, a Probit model was specified for the second step. Where the dependent variable was continuous, the second step model was an OLS regression. For each independent variable the tables provide a regression coefficient, a significance level (denoted using the following symbols: + $p < 0.10$ * $p < 0.05$ ** $p < 0.01$), and a p-value in parentheses below. At the bottom of each table the number of observations for each model is presented, along with an indication of model fit (an R^2 value for OLS regressions and a pseudo- R^2 value for Probit regressions). Where the field is blank (e.g. 'Business plan (pre-start)' in the 'SUL (Heckman first-stage probit equation)', this denotes that the independent variable was not included in the model specification.

The econometric model used for the analysis is nonlinear. This means that the marginal effect of the variable cannot be directly read from the coefficients for the dummy variables that are presented in the results tables below, because it is conditional on the values of the explanatory variables for each individual observation. There are various ways to translate the coefficients into marginal values using statistical software, and these marginal impacts have been included in the main body of the report where relevant, e.g. in relation to the start-up rate.

Table A-5: Summary of regression results for the Heckman first-stage probit equation, and second-stage Heckman results for start-rate, speed of start and survival

| Independent variables | Dependent variables | | | |
|------------------------------|---|------------------------------|--------------------------|------------------------------|
| | SUL (Heckman first-stage probit equation) Probit | Start-rate Probit | Speed OLS | Survival Probit |
| SUL | | 0.977** (0.000) | 0.00125 (0.997) | -0.0713 (0.748) |
| Owner age | 0.00557 (0.863) | 0.0736 (0.118) | 0.00078 3 (0.987) | 0.00309 (0.951) |
| Owner age squared | -0.00034 (0.371) | - 0.00076 4 (0.155) | 0.00008 29 (0.883) | - 0.00017 5 (0.775) |
| Previous business experience | 0.224+ (0.088) | -0.0194 (0.928) | 0.136 (0.493) | 0.111 (0.564) |
| Degree | 0.0526 (0.670) | 0.268 (0.176) | 0.0996 (0.595) | -0.0123 (0.945) |
| Female | -0.0144 (0.907) | -0.141 (0.483) | 0.234 (0.205) | -0.0782 (0.654) |
| Unemployed pre-start | 0.333* (0.020) | -0.0687 (0.790) | -0.0666 (0.779) | 0.272 (0.242) |

| | | | | |
|--|----------|---------|---------|---------|
| Multiple owners | -0.407** | 0.123 | 0.0127 | -0.0731 |
| | (0.001) | (0.549) | (0.949) | (0.725) |
| Region: Reference region is the South | | | | |
| London | 0.349+ | -0.643* | 0.406 | 0.467 |
| | (0.054) | (0.033) | (0.189) | (0.112) |
| North | 0.291 | 0.184 | -0.0162 | 0.210 |
| | (0.121) | (0.630) | (0.953) | (0.438) |
| Midlands | 0.488** | -0.145 | 0.0859 | 0.470 |
| | (0.008) | (0.670) | (0.769) | (0.118) |
| Celtic | -0.539** | -0.206 | 0.174 | -0.510 |
| | (0.001) | (0.520) | (0.552) | (0.121) |
| Sector: Reference sector refers to SIC codes A-F: primary/production/construction | | | | |
| G-I: wholesale/retail/transport/accommodation | -0.0944 | 0.00155 | 0.181 | 0.422 |
| | (0.629) | (0.996) | (0.512) | (0.137) |
| J-N: business/professional/scientific services | -0.539** | 0.106 | 0.495+ | -0.300 |
| | (0.003) | (0.745) | (0.092) | (0.317) |
| O-U: public administration/education/health | -0.622** | 0.109 | 0.502 | -0.757* |
| | (0.001) | (0.748) | (0.119) | (0.017) |
| Wanted to be own boss | -0.757** | | | |
| | (0.000) | | | |
| Business plan (pre-start) | | | 1.188** | |
| | | | (0.000) | |
| Non-financial support | | | -0.476+ | |
| | | | (0.067) | |
| SUL mentoring | | | -0.342 | |
| | | | (0.324) | |
| Interaction - SUL mentoring and non-financial support | | | 0.298 | |
| | | | (0.407) | |
| Business plan prepared | | | | -0.0656 |
| | | | | (0.886) |
| External finance | | | | 0.751** |
| | | | | (0.001) |
| Business age | | | | -0.381 |
| | | | | (0.530) |
| Business age squared | | | | 0.0661 |
| | | | | (0.584) |
| Inverse Mills ratio | | -0.262 | -0.434 | 1.840** |
| | | (0.505) | (0.286) | (0.003) |
| Observations | 565 | 466 | 331 | 446 |
| (Pseudo) R-squared | 0.194 | 0.141 | 0.178 | 0.129 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-6: Summary of second-stage Heckman regression results for sales and employment change variables

| | Dependent variable | | | | | |
|--|-----------------------|-----------------------|----------------------------|--------------------------------------|------------------------------|--|
| | Sales change (binary) | Sales change (logged) | Employment change (binary) | Full-time employment change (binary) | Employment change (absolute) | Full-time employment change (absolute) |
| | Probit | OLS | Probit | Probit | OLS | OLS |
| Independent variables | | | | | | |
| SUL | 0.566+ (0.087) | 0.0448 (0.891) | 0.751* (0.046) | 0.745+ (0.077) | 0.347 (0.139) | 0.201+ (0.075) |
| Owner age | 0.0584 (0.322) | -0.0887 (0.158) | 0.0195 (0.791) | -0.0637 (0.429) | -0.116* (0.029) | -0.0745** (0.004) |
| Owner age squared | -0.000669 (0.332) | 0.00101 (0.162) | -0.0000987 (0.909) | 0.000807 (0.393) | 0.00145* (0.021) | 0.000931** (0.002) |
| Previous business experience | 0.173 (0.459) | 0.431+ (0.055) | -0.0513 (0.847) | 0.00286 (0.992) | -0.350+ (0.076) | -0.0400 (0.676) |
| Degree | 0.163 (0.489) | 0.171 (0.492) | 0.221 (0.469) | -0.165 (0.618) | 0.0115 (0.954) | -0.0842 (0.392) |
| Female | 0.170 (0.438) | 0.0223 (0.917) | 0.422+ (0.096) | 0.523+ (0.062) | 0.290 (0.123) | 0.135 (0.144) |
| Unemployed pre-start | -0.158 (0.559) | 0.105 (0.718) | -0.716+ (0.069) | -0.497 (0.260) | -0.0257 (0.911) | -0.105 (0.349) |
| Multiple owners | 0.484* (0.036) | 0.368 (0.119) | 0.345 (0.199) | 0.516+ (0.094) | 0.137 (0.484) | 0.154 (0.105) |
| London | 0.0272 (0.937) | 0.360 (0.293) | 0.553 (0.164) | 1.163* (0.019) | -0.0483 (0.871) | 0.347* (0.018) |
| North | -0.0485 (0.893) | -0.202 (0.567) | 0.249 (0.550) | 0.536 (0.311) | 0.393 (0.184) | 0.174 (0.228) |
| Midlands | 0.205 (0.551) | -0.0753 (0.828) | -0.376 (0.389) | 0.199 (0.706) | -0.0948 (0.747) | 0.0695 (0.630) |
| Celtic | 0.474 (0.188) | -0.134 (0.719) | 0.328 (0.462) | 0.835 (0.111) | 0.240 (0.458) | -0.0296 (0.851) |
| G-I: wholesale/retail/transport/accommodation | 0.387 (0.263) | 0.314 (0.348) | 0.799+ (0.100) | 0.882+ (0.085) | -0.0115 (0.968) | 0.0459 (0.748) |
| J-N: business/professional/scientific services | 0.128 (0.718) | 0.150 (0.668) | 0.898+ (0.082) | 0.562 (0.305) | 0.169 (0.582) | -0.0109 (0.942) |
| O-U: public administration/education/health | 0.383 (0.326) | 0.162 (0.667) | 1.125* (0.038) | 0.913 (0.111) | -0.0788 (0.811) | -0.0236 (0.883) |
| Business plan (pre-start) | | | | | | |
| Non-financial support | 0.736** (0.009) | | | | | 0.0466 (0.594) |

| | | | | | | |
|---|--------------------|--------------------|--------------------|-------------------|--------------------|----------------------|
| SUL mentoring | 0.334 (0.377) | | | | | |
| Interaction - SUL mentoring and non-financial support | -0.966* (0.020) | | | | | |
| Business plan prepared | 1.576* (0.049) | 1.470 (0.220) | | | -0.379 (0.563) | 0.0738 (0.816) |
| External finance | | 0.382+ (0.099) | 0.519* (0.042) | 0.627* (0.036) | 0.0562 (0.764) | |
| Business age | -0.744 (0.402) | -0.286 (0.816) | 0.531 (0.676) | -0.297 (0.826) | -0.372 (0.627) | -0.551 (0.142) |
| Business age squared | 0.0681 (0.676) | 0.0351 (0.880) | -0.0948 (0.677) | 0.0830 (0.727) | 0.0987 (0.478) | 0.126+ (0.065) |
| Sales in 2015 | 0.0224 (0.756) | 0.790** (0.000) | 0.182+ (0.051) | 0.0472 (0.634) | 0.00890 (0.885) | -0.000790 (0.979) |
| Interaction - SUL and External finance | | | | | | |
| Inverse Mills ratio | -0.585 (0.278) | -0.0421 (0.944) | -0.390 (0.568) | 0.188 (0.797) | -0.221 (0.637) | 0.199 (0.382) |
| Observations | 195 | 129 | 233 | 232 | 238 | 237 |
| (Pseudo) R-squared | 0.144 | 0.642 | 0.194 | 0.212 | 0.073 | 0.150 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-7: Summary of second-stage Heckman regression results for profit, innovation and exporting variables

| | Dependent variable | | | | |
|---|---------------------|---------------------|---------------------------|----------------------------|----------------------------|
| | Profit Probit | Innovate Probit | Export (any) Probit | Export (>10%) Probit | Export (>10%) Probit |
| Independent variables | | | | | |
| SUL | -1.194** (0.000) | 0.708* (0.030) | 0.259 (0.242) | 0.0404 (0.875) | 0.0404 (0.875) |
| Owner age | -0.0585 (0.298) | -0.0290 (0.570) | -0.0565 (0.225) | -0.0291 (0.583) | -0.0291 (0.583) |
| Owner age squared | 0.000700 (0.293) | 0.000424 (0.475) | 0.000739 (0.176) | 0.000489 (0.423) | 0.000489 (0.423) |
| Previous business experience | -0.526* (0.023) | 0.508** (0.006) | 0.304+ (0.087) | 0.136 (0.519) | 0.136 (0.519) |
| Degree | 0.0165 (0.941) | 0.364+ (0.058) | 0.520** (0.004) | 0.299 (0.170) | 0.299 (0.170) |
| Female | -0.195 (0.345) | -0.438* (0.021) | 0.265 (0.116) | -0.0153 (0.940) | -0.0153 (0.940) |
| Unemployed pre-start | -0.136 (0.594) | 0.0646 (0.788) | -0.103 (0.638) | -0.0544 (0.833) | -0.0544 (0.833) |
| Multiple owners | -0.986** (0.000) | 0.199 (0.300) | 0.289+ (0.097) | 0.273 (0.184) | 0.273 (0.184) |
| London | -0.262 (0.433) | 0.295 (0.292) | 0.242 (0.360) | 0.0947 (0.756) | 0.0947 (0.756) |
| North | -0.494 (0.139) | -0.449 (0.166) | -0.361 (0.208) | -0.314 (0.362) | -0.314 (0.362) |
| Midlands | -0.118 (0.723) | 0.144 (0.615) | 0.0407 (0.880) | -0.175 (0.584) | -0.175 (0.584) |
| Celtic | -0.101 (0.764) | 0.177 (0.581) | 0.254 (0.413) | 0.177 (0.627) | 0.177 (0.627) |
| G-I: wholesale/retail/transport/accommodation | -0.398 (0.223) | 0.115 (0.687) | 0.182 (0.486) | 0.618+ (0.079) | 0.618+ (0.079) |
| J-N: business/professional/scientific services | 0.364 (0.311) | 0.280 (0.330) | 0.275 (0.313) | 0.921* (0.012) | 0.921* (0.012) |
| O-U: public administration/education/health | 0.149 (0.704) | 0.257 (0.418) | 0.0461 (0.878) | 0.288 (0.491) | 0.288 (0.491) |
| Business plan (pre-start) | | | | | |
| Non-financial support | -0.544+ (0.054) | | | | |
| SUL mentoring | 0.188 (0.593) | | | | |
| Interaction - SUL mentoring and non-financial support | 0.333 (0.406) | | | | |
| Business plan prepared | -0.246 | -0.778 | -0.673 | -0.331 | -0.331 |

| | | | | | |
|--|---------|---------|---------|---------|---------|
| | (0.725) | (0.111) | (0.107) | (0.520) | (0.520) |
| External finance | | 0.877* | | | |
| | | (0.013) | | | |
| Business age | -0.0640 | -0.857+ | 0.175 | -0.188 | -0.188 |
| | (0.944) | (0.096) | (0.738) | (0.751) | (0.751) |
| Business age squared | -0.0334 | 0.142 | -0.0202 | 0.0488 | 0.0488 |
| | (0.843) | (0.164) | (0.845) | (0.678) | (0.678) |
| Sales in 2015 | 0.270** | | | | |
| | (0.000) | | | | |
| Interaction - SUL and External finance | | -0.609 | | | |
| | | (0.136) | | | |
| Inverse Mills ratio | -0.327 | -0.370 | -0.636 | -0.688 | -0.688 |
| | (0.533) | (0.424) | (0.143) | (0.198) | (0.198) |
| Observations | 221 | 345 | 310 | 310 | 310 |
| (Pseudo) R-squared | 0.212 | 0.147 | 0.107 | 0.104 | 0.104 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-8: Summary of second-stage Heckman regression results for business confidence, skills and personal confidence variables (including change in these variables from Year 1 to Year 2).

| | Dependent variable | | | | | |
|--|---------------------|-------------------------------|----------------------|----------------------|---------------------|-------------------------------|
| | Business confidence | Change in business confidence | Skills | Change in skills | Personal confidence | Change in personal confidence |
| | Probit | Probit | Probit | Probit | Probit | Probit |
| Independent variables | | | | | | |
| SUL | 0.130 (0.487) | -0.205 (0.344) | 0.0686 (0.674) | -0.0123 (0.950) | 0.205 (0.322) | 0.335 (0.110) |
| Owner age | -0.0745 (0.110) | 0.0548 (0.273) | 0.0394 (0.276) | 0.0675 (0.150) | -0.0134 (0.780) | 0.0727 (0.140) |
| Owner age squared | 0.000846 (0.129) | -0.000712 (0.237) | -0.000495 (0.248) | -0.000757 (0.174) | 0.000299 (0.604) | -0.000843 (0.150) |
| Previous business experience | 0.213 (0.202) | -0.0800 (0.669) | 0.250+ (0.080) | -0.0138 (0.935) | -0.323+ (0.070) | 0.0967 (0.582) |
| Degree | -0.0653 (0.678) | -0.113 (0.508) | -0.0831 (0.535) | -0.181 (0.262) | 0.112 (0.506) | -0.146 (0.390) |
| Female | -0.355* (0.018) | 0.0305 (0.856) | -0.0635 (0.626) | -0.167 (0.296) | -0.331* (0.045) | 0.241 (0.139) |
| Unemployed pre-start | -0.134 (0.470) | 0.0730 (0.741) | -0.0990 (0.546) | -0.435* (0.045) | -0.165 (0.422) | 0.314 (0.139) |
| Multiple owners | 0.0777 (0.692) | -0.247 (0.234) | -0.00958 (0.946) | -0.105 (0.552) | 0.0784 (0.673) | 0.578** (0.001) |
| London | -0.133 (0.572) | -0.577* (0.041) | -0.235 (0.258) | -0.428+ (0.079) | 0.355 (0.182) | -0.485+ (0.076) |
| North | 0.138 (0.562) | -0.173 (0.486) | 0.0682 (0.739) | -0.340 (0.146) | 0.398 (0.138) | -0.206 (0.401) |
| Midlands | 0.166 (0.504) | -0.273 (0.320) | -0.0427 (0.841) | -0.478+ (0.060) | 0.313 (0.243) | -0.293 (0.265) |
| Celtic | 0.177 (0.504) | -0.344 (0.265) | -0.368 (0.103) | -0.620* (0.028) | -0.0108 (0.968) | -0.0266 (0.925) |
| G-I: wholesale/retail/transport/accommodation | 0.342 (0.166) | 0.0268 (0.922) | 0.324 (0.111) | 0.0895 (0.716) | -0.242 (0.370) | 0.231 (0.392) |
| J-N: business/professional/scientific services | -0.184 (0.447) | 0.246 (0.406) | -0.0330 (0.875) | 0.0719 (0.788) | -0.262 (0.349) | 0.317 (0.275) |
| O-U: public administration/education/health | 0.0583 (0.831) | 0.0664 (0.835) | -0.206 (0.367) | 0.202 (0.482) | -0.162 (0.594) | 0.533+ (0.081) |
| Business plan (pre-start) | | | | | | |
| Non-financial support | 0.159 (0.281) | | 0.180 (0.154) | -0.0269 (0.863) | | |
| SUL mentoring | | | | | | |

Interaction - SUL mentoring and non-financial support

| | | | | | | |
|------------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| Business plan prepared | 0.964** (0.002) | -0.136 (0.731) | 0.782* (0.013) | -0.400 (0.281) | 0.797* (0.017) | 0.445 (0.438) |
| External finance | | -0.454* (0.019) | | | | |
| Business age | -0.334 (0.451) | -0.365 (0.437) | -0.126 (0.727) | -0.474 (0.263) | -0.615 (0.247) | -0.531 (0.275) |
| Business age squared | 0.0602 (0.495) | 0.0491 (0.613) | 0.0344 (0.632) | 0.0994 (0.240) | 0.0991 (0.338) | 0.131 (0.168) |

Sales in 2015

Interaction - SUL and External finance

| | | | | | | |
|---------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| Inverse Mills ratio | -0.0964 (0.793) | -0.333 (0.507) | 0.506 (0.118) | -0.300 (0.495) | 0.0598 (0.880) | -0.275 (0.552) |
|---------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|

| | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|
| Observations | 449 | 419 | 449 | 417 | 450 | 416 |
| (Pseudo) R-squared | 0.079 | 0.077 | 0.047 | 0.052 | 0.079 | 0.081 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-9: Summary of regression results for analysis of arrears (by duration).

| | Dependent variable | | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|
| | Arrears (1 months +) Probit | Arrears (3 months +) Probit | Arrears (6 months +) Probit | Arrears (9 months +) Probit | Arrears (12 months +) Probit |
| Independent variables | | | | | |
| Owner age | 0.0440 (0.669) | 0.0925 (0.425) | 0.0595 (0.625) | 0.137 (0.462) | 1.074 (0.507) |
| Owner age squared | -0.000650 (0.605) | -0.00126 (0.381) | -0.000821 (0.584) | -0.00206 (0.402) | -0.0140 (0.507) |
| Previous business experience | 0.519 (0.149) | 0.505 (0.203) | 0.293 (0.478) | 0.304 (0.511) | 1.671 (0.277) |
| Degree | -0.345 (0.365) | -0.654 (0.140) | -0.489 (0.284) | -1.175* (0.045) | -3.011 (0.288) |
| Female | 0.123 (0.733) | 0.152 (0.698) | 0.0242 (0.952) | 0.257 (0.588) | 4.298 (0.263) |
| Unemployed pre-start | 0.228 (0.547) | 0.247 (0.553) | 0.423 (0.313) | 0.110 (0.825) | -2.084 (0.335) |
| Multiple owners | 0.653+ (0.090) | 0.885* (0.042) | 0.628 (0.155) | 1.030* (0.046) | 0.0352 (0.981) |
| London | 0.281 (0.535) | 0.718 (0.159) | 0.487 (0.354) | 0.849 (0.163) | -0.494 (0.795) |
| North | 0.663 (0.160) | 0.661 (0.241) | 0.602 (0.281) | 0.145 (0.851) | |
| Midlands | -0.300 (0.555) | 0.155 (0.785) | 0.131 (0.816) | 0.554 (0.390) | |
| Celtic | 1.208* (0.019) | 1.329* (0.029) | 0.621 (0.329) | 1.212 (0.110) | 2.091 (0.413) |
| G-I: wholesale/retail/transport/accommodation | -0.204 (0.681) | -0.0431 (0.937) | -0.0368 (0.947) | 0.252 (0.706) | -2.917 (0.421) |
| J-N: business/professional/scientific services | -0.335 (0.459) | -0.259 (0.597) | -0.0945 (0.848) | 0.318 (0.586) | -0.899 (0.573) |
| O-U: public administration/education/health | -0.666 (0.258) | -0.852 (0.223) | -0.582 (0.391) | -0.0647 (0.933) | |
| SUL mentoring hours | 0.0220+ (0.069) | 0.0337* (0.015) | 0.0247+ (0.076) | 0.0295+ (0.079) | 0.172 (0.260) |
| Observations | 106 | 106 | 106 | 106 | 58 |
| (Pseudo) R-squared | 0.138 | 0.177 | 0.110 | 0.172 | 0.414 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-10: Summary of scheme improvement (mentoring) analysis on survival-rate.

| Independent variable | Dependent variable | | | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | Survival-rate Probit | Survival-rate Probit | Survival-rate Probit | Survival-rate Probit | Survival-rate Probit |
| Owner age | 0.005 (0.954) | -0.215 (0.378) | -0.012 (0.869) | 0.030 (0.735) | 0.021 (0.801) |
| Owner age squared | 0.000 (0.996) | 0.003 (0.411) | 0.000 (0.818) | -0.000 (0.753) | -0.000 (0.831) |
| Previous business experience | 0.327 (0.249) | 0.086 (0.884) | 0.293 (0.262) | 0.293 (0.335) | 0.331 (0.253) |
| Has a degree | -0.008 (0.975) | -0.539 (0.423) | 0.130 (0.595) | 0.027 (0.922) | -0.011 (0.967) |
| is female | -0.339 (0.151) | 0.115 (0.813) | -0.318 (0.153) | -0.359 (0.148) | -0.339 (0.154) |
| Unemployed pre-start | -0.575* (0.023) | -0.818 (0.140) | -0.402+ (0.093) | -0.588* (0.026) | -0.518* (0.044) |
| Has multiple owners | 0.358 (0.267) | 0.168 (0.789) | 0.255 (0.377) | 0.424 (0.227) | 0.338 (0.307) |
| London | -0.370 (0.313) | -5.825 (0.989) | -0.184 (0.591) | -0.482 (0.224) | -0.356 (0.340) |
| North | -0.114 (0.758) | -4.912 (0.991) | 0.033 (0.925) | -0.108 (0.784) | -0.094 (0.803) |
| Midlands | 0.066 (0.863) | -4.464 (0.992) | 0.058 (0.867) | 0.079 (0.845) | 0.091 (0.812) |
| Celtic | -0.323 (0.405) | -5.891 (0.989) | -0.328 (0.361) | -0.412 (0.325) | -0.295 (0.450) |
| G-I: wholesale/retail/transport/accommodation | 0.251 (0.492) | 0.280 (0.685) | 0.318 (0.340) | 0.382 (0.328) | 0.345 (0.358) |
| J-N: business/professional/scientific services | 0.047 (0.892) | 0.499 (0.441) | 0.113 (0.722) | 0.065 (0.859) | 0.091 (0.794) |
| O-U: public administration/education/health | -0.688+ (0.056) | -0.710 (0.367) | -0.556 (0.101) | -0.764* (0.045) | -0.701+ (0.053) |
| Loan value | -0.000 (0.906) | 0.000 (0.738) | 0.000 (0.737) | -0.000 (0.599) | -0.000 (0.749) |
| SUL mentoring | 0.257 (0.309) | | | 0.010 (0.972) | 0.136 (0.685) |
| SUL mentoring hours | | -0.011 (0.466) | | | |
| Any mentoring (including SUL) | | | 0.062 (0.812) | | |
| Non-SUL mentoring | | | | -0.455 (0.396) | |
| Non-financial support | | | | | 0.283 |

| | | | | | |
|---|-------|-------|-------|-------|---------|
| Interaction - SUL mentoring and non-financial support | | | | | (0.498) |
| | | | | | 0.162 |
| | | | | | (0.745) |
| Observations | 235 | 109 | 247 | 203 | 234 |
| (Pseudo) R-squared | 0.154 | 0.340 | 0.118 | 0.166 | 0.169 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-11: Summary of scheme improvement (mentoring) analysis on sales change (binary).

| Independent variable | Dependent variable | | | | |
|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | Sales change (binary) Probit | Sales change (binary) Probit | Sales change (binary) Probit | Sales change (binary) Probit | Sales change (binary) Probit |
| Owner age | 0.101 (0.215) | 0.156 (0.208) | 0.109 (0.167) | 0.099 (0.231) | 0.111 (0.181) |
| Owner age squared | -0.001 (0.232) | -0.002 (0.225) | -0.001 (0.182) | -0.001 (0.247) | -0.001 (0.200) |
| Previous business experience | 0.124 (0.668) | 0.654 (0.176) | 0.390 (0.147) | 0.141 (0.630) | 0.129 (0.660) |
| Has a degree | 0.293 (0.328) | 0.358 (0.524) | 0.298 (0.306) | 0.271 (0.369) | 0.294 (0.332) |
| is female | 0.348 (0.206) | 0.090 (0.848) | 0.374 (0.165) | 0.376 (0.178) | 0.427 (0.142) |
| Unemployed pre-start | -0.172 (0.550) | 0.415 (0.400) | -0.145 (0.608) | -0.201 (0.490) | -0.164 (0.575) |
| Has multiple owners | 0.208 (0.478) | 0.438 (0.340) | 0.326 (0.251) | 0.244 (0.414) | 0.225 (0.451) |
| London | -0.089 (0.814) | 0.002 (0.997) | -0.062 (0.869) | -0.079 (0.838) | -0.089 (0.816) |
| North | -0.583 (0.195) | -0.627 (0.447) | -0.329 (0.438) | -0.580 (0.210) | -0.571 (0.211) |
| Midlands | 0.553 (0.144) | 0.957 (0.108) | 0.499 (0.180) | 0.563 (0.141) | 0.594 (0.120) |
| Celtic | 0.034 (0.936) | 0.997 (0.174) | 0.132 (0.752) | 0.070 (0.871) | 0.047 (0.910) |
| G-I: wholesale/retail/transport/accommodation | -0.424 (0.292) | 0.686 (0.401) | -0.305 (0.429) | -0.437 (0.280) | -0.458 (0.278) |
| J-N: business/professional/scientific services | -0.550 (0.177) | 0.387 (0.592) | -0.550 (0.165) | -0.561 (0.171) | -0.579 (0.170) |
| O-U: public administration/education/health | -0.549 (0.269) | 1.240 (0.196) | -0.347 (0.457) | -0.501 (0.318) | -0.636 (0.212) |
| Loan value | 0.000 (0.569) | -0.000 (0.847) | -0.000 (0.836) | 0.000 (0.591) | 0.000 (0.530) |
| SUL mentoring | -0.410 (0.157) | | | -0.378 (0.260) | 0.001 (0.997) |
| SUL mentoring hours | | -0.001 (0.940) | | | |
| Any mentoring (including SUL) | | | -0.323 (0.300) | | |
| Non-SUL mentoring | | | | -0.138 | |

| | | | | | |
|---|-------|-------|-------|---------|---------|
| Interaction - SUL and non-SUL mentoring | | | | (0.818) | |
| | | | | -0.142 | |
| Non-financial support | | | | (0.840) | 0.446 |
| | | | | | (0.371) |
| Interaction - SUL mentoring and non-financial support | | | | | -0.759 |
| | | | | | (0.181) |
| Observations | 129 | 60 | 135 | 129 | 129 |
| Pseudo R-squared | 0.097 | 0.240 | 0.088 | 0.101 | 0.109 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-12: Summary of scheme improvement (mentoring) analysis on sales change (absolute, logged).

| Independent variable | Dependent variable | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | Sales change (absolute, logged) OLS | Sales change (absolute, logged) OLS | Sales change (absolute, logged) OLS | Sales change (absolute, logged) OLS | Sales change (absolute, logged) OLS |
| Owner age | -0.124 (0.287) | -0.219 (0.190) | -0.084 (0.456) | -0.123 (0.297) | -0.135 (0.256) |
| Owner age squared | 0.001 (0.324) | 0.003 (0.205) | 0.001 (0.493) | 0.001 (0.332) | 0.002 (0.286) |
| Previous business experience | 0.014 (0.971) | 0.143 (0.845) | 0.127 (0.731) | 0.003 (0.995) | 0.081 (0.840) |
| Has a degree | -0.133 (0.745) | 0.742 (0.343) | -0.212 (0.598) | -0.139 (0.739) | -0.144 (0.733) |
| is female | -0.491 (0.167) | 0.059 (0.925) | -0.599 (0.103) | -0.500 (0.168) | -0.546 (0.139) |
| Unemployed pre-start | 0.180 (0.658) | -0.483 (0.483) | 0.017 (0.967) | 0.202 (0.633) | 0.192 (0.641) |
| Has multiple owners | 0.145 (0.709) | 0.158 (0.806) | 0.416 (0.291) | 0.142 (0.720) | 0.192 (0.629) |
| London | 0.029 (0.957) | 0.168 (0.845) | 0.043 (0.938) | 0.052 (0.925) | 0.041 (0.940) |
| North | -0.726 (0.303) | -5.366** (0.002) | -0.424 (0.502) | -0.670 (0.366) | -0.633 (0.381) |
| Midlands | -0.573 (0.224) | -0.895 (0.236) | -0.821+ (0.097) | -0.539 (0.271) | -0.605 (0.211) |
| Celtic | -0.544 (0.331) | -0.305 (0.730) | -0.555 (0.342) | -0.498 (0.401) | -0.517 (0.364) |
| G-I: wholesale/retail/transport/accommodation | 0.608 (0.242) | -1.314 (0.408) | 0.555 (0.292) | 0.597 (0.259) | 0.627 (0.253) |
| J-N: business/professional/scientific services | 0.450 (0.371) | -1.161 (0.390) | 0.391 (0.450) | 0.458 (0.371) | 0.427 (0.409) |
| O-U: public administration/education/health | 0.061 (0.920) | -1.563 (0.294) | 0.026 (0.966) | 0.088 (0.894) | 0.056 (0.929) |
| Loan value | 0.000** (0.005) | 0.000* (0.038) | 0.000* (0.014) | 0.000** (0.006) | 0.000** (0.005) |
| SUL mentoring | -0.515 (0.143) | | | -0.460 (0.265) | -0.867 (0.117) |
| SUL mentoring hours | | -0.001 (0.968) | | | |
| Any mentoring (including SUL) | | | -0.363 | | |

| | | | | | |
|---|-------|-------|---------|---------|---------|
| | | | (0.357) | | |
| Non-SUL mentoring | | | | 0.232 | |
| | | | | (0.753) | |
| Interaction - SUL and non-SUL mentoring | | | | -0.239 | |
| | | | | (0.804) | |
| Non-financial support | | | | | -0.368 |
| | | | | | (0.542) |
| Interaction - SUL mentoring and non-financial support | | | | | 0.617 |
| | | | | | (0.402) |
| Observations | 83 | 34 | 88 | 83 | 83 |
| Pseudo R-squared | 0.260 | 0.704 | 0.245 | 0.262 | 0.269 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-13: Summary of scheme improvement (mentoring) analysis on employment change (binary).

| Independent variable | Dependent variable | | | | |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | Employment change (binary) Probit | Employment change (binary) Probit | Employment change (binary) Probit | Employment change (binary) Probit | Employment change (binary) Probit |
| Owner age | 0.260+ | 146.295 | 0.116 | 0.286+ | 0.263+ |
| | (0.086) | (.) | (0.287) | (0.065) | (0.086) |
| Owner age squared | -0.004+ | -1.651 | -0.002 | -0.004+ | -0.004+ |
| | (0.076) | (.) | (0.275) | (0.063) | (0.076) |
| Previous business experience | -0.405 | -411.081 | -0.171 | -0.444 | -0.365 |
| | (0.265) | (.) | (0.566) | (0.234) | (0.322) |
| Has a degree | 0.637 | | 0.660+ | 0.597 | 0.681 |
| | (0.116) | | (0.062) | (0.153) | (0.100) |
| is female | 0.251 | -341.729 | 0.097 | 0.231 | 0.206 |
| | (0.453) | (.) | (0.739) | (0.500) | (0.563) |
| Unemployed pre-start | -0.708 | | -0.697+ | -0.673 | -0.716 |
| | (0.124) | | (0.087) | (0.151) | (0.122) |
| Has multiple owners | 0.152 | 467.659 | 0.196 | 0.120 | 0.151 |
| | (0.663) | (.) | (0.524) | (0.739) | (0.667) |
| London | 0.037 | 301.171 | 0.023 | 0.141 | 0.000 |
| | (0.933) | (.) | (0.955) | (0.761) | (1.000) |
| North | -0.133 | 229.268 | 0.063 | 0.019 | -0.172 |
| | (0.804) | (.) | (0.888) | (0.974) | (0.752) |
| Midlands | -0.551 | -525.937 | -0.645 | -0.471 | -0.619 |
| | (0.254) | (.) | (0.152) | (0.359) | (0.212) |
| Celtic | -0.612 | 128.711 | -0.620 | -0.503 | -0.663 |
| | (0.224) | (.) | (0.212) | (0.362) | (0.196) |
| G-I: wholesale/retail/transport/accommodation | 5.536 | -1360.158 | 0.736 | 6.185 | 5.379 |
| | (0.989) | (.) | (0.187) | (0.988) | (0.990) |
| J-N: business/professional/scientific services | 5.640 | -1598.653 | 0.725 | 6.314 | 5.473 |
| | (0.989) | (.) | (0.192) | (0.988) | (0.989) |
| O-U: public administration/education/health | 5.280 | -1153.853 | 0.415 | 5.881 | 5.140 |
| | (0.990) | (.) | (0.510) | (0.989) | (0.990) |
| Loan value | 0.000 | 0.010 | 0.000 | 0.000 | 0.000 |
| | (0.157) | (.) | (0.346) | (0.135) | (0.173) |
| SUL mentoring | -0.965** | | | -0.938* | -1.155* |
| | (0.004) | | | (0.017) | (0.013) |
| SUL mentoring hours | | 19.376 | | | |
| | | (.) | | | |
| Any mentoring (including SUL) | | | -0.494 | | |

| | | | | | |
|---|-------|-------|---------|---------|---------|
| Non-SUL mentoring | | | (0.125) | 0.921 | |
| | | | | (0.155) | |
| Interaction - SUL and non-SUL mentoring | | | | -0.262 | |
| | | | | (0.743) | |
| Non-financial support | | | | | -0.306 |
| | | | | | (0.541) |
| Interaction - SUL mentoring and non-financial support | | | | | 0.399 |
| | | | | | (0.541) |
| Observations | 169 | 40 | 175 | 167 | 168 |
| Pseudo R-squared | 0.285 | 1.000 | 0.178 | 0.316 | 0.287 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-14: Summary of scheme improvement (mentoring) analysis on employment change (absolute).

| Independent variable | Dependent variable | | | | |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | Employment change (absolute) OLS | Employment change (absolute) OLS | Employment change (absolute) OLS | Employment change (absolute) OLS | Employment change (absolute) OLS |
| Owner age | -0.021 (0.742) | -0.112 (0.336) | -0.038 (0.543) | -0.019 (0.778) | -0.038 (0.565) |
| Owner age squared | 0.000 (0.863) | 0.001 (0.337) | 0.000 (0.599) | 0.000 (0.892) | 0.000 (0.667) |
| Previous business experience | -0.362+ (0.093) | -0.603 (0.148) | -0.274 (0.190) | -0.373+ (0.090) | -0.358+ (0.098) |
| Has a degree | 0.203 (0.363) | 0.182 (0.698) | 0.266 (0.232) | 0.207 (0.364) | 0.269 (0.239) |
| is female | 0.133 (0.511) | 0.419 (0.324) | 0.081 (0.692) | 0.124 (0.547) | 0.155 (0.449) |
| Unemployed pre-start | 0.155 (0.492) | 0.222 (0.613) | 0.096 (0.671) | 0.159 (0.489) | 0.127 (0.576) |
| Has multiple owners | -0.018 (0.937) | 0.352 (0.432) | 0.085 (0.707) | -0.025 (0.914) | -0.010 (0.966) |
| London | 0.084 (0.779) | 0.449 (0.399) | 0.089 (0.768) | 0.057 (0.851) | 0.059 (0.843) |
| North | 0.246 (0.456) | 0.466 (0.425) | 0.359 (0.270) | 0.261 (0.446) | 0.189 (0.568) |
| Midlands | -0.050 (0.859) | 0.238 (0.639) | -0.079 (0.781) | -0.035 (0.905) | -0.118 (0.678) |
| Celtic | 0.107 (0.743) | 0.391 (0.570) | 0.089 (0.793) | 0.073 (0.831) | 0.072 (0.824) |
| G-I: wholesale/retail/transport/accommodation | -0.048 (0.871) | -0.935 (0.175) | -0.139 (0.642) | -0.010 (0.974) | -0.166 (0.590) |
| J-N: business/professional/scientific services | 0.298 (0.326) | -0.335 (0.604) | 0.115 (0.705) | 0.299 (0.333) | 0.197 (0.522) |
| O-U: public administration/education/health | -0.350 (0.347) | -0.389 (0.621) | -0.454 (0.218) | -0.386 (0.312) | -0.392 (0.297) |
| Loan value | 0.000 (0.218) | 0.000 (0.240) | 0.000 (0.324) | 0.000 (0.242) | 0.000 (0.183) |
| SUL mentoring | -0.160 (0.471) | | | -0.237 (0.350) | -0.459 (0.142) |
| SUL mentoring hours | | 0.014 (0.325) | | | |
| Any mentoring (including SUL) | | | -0.088 | | |

| | | | | | |
|---|-------|-------|---------|---------|---------|
| Non-SUL mentoring | | | (0.715) | 0.045 | |
| | | | | (0.929) | |
| Interaction - SUL and non-SUL mentoring | | | | 0.340 | |
| | | | | (0.562) | |
| Non-financial support | | | | | -0.737* |
| | | | | | (0.047) |
| Interaction - SUL mentoring and non-financial support | | | | | 0.644 |
| | | | | | (0.129) |
| Observations | 169 | 77 | 175 | 167 | 168 |
| Pseudo R-squared | 0.082 | 0.154 | 0.069 | 0.089 | 0.103 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-15: Summary of scheme improvement (mentoring) analysis on full-time employment change (binary).

| Independent variable | Dependent variable | | | |
|--|---|---|---|---|
| | Full-time employment change (binary) Probit | Full-time employment change (binary) Probit | Full-time employment change (binary) Probit | Full-time employment change (binary) Probit |
| Owner age | 0.137 (0.354) | 0.028 (0.783) | 0.136 (0.360) | 0.139 (0.364) |
| Owner age squared | -0.002 (0.314) | -0.000 (0.752) | -0.002 (0.343) | -0.002 (0.324) |
| Previous business experience | -0.303 (0.438) | -0.139 (0.667) | -0.349 (0.383) | -0.254 (0.523) |
| Has a degree | 0.123 (0.768) | 0.276 (0.451) | 0.120 (0.782) | 0.165 (0.698) |
| is female | 0.018 (0.958) | -0.093 (0.763) | 0.011 (0.976) | -0.059 (0.871) |
| Unemployed pre-start | -0.424 (0.358) | -0.421 (0.309) | -0.386 (0.420) | -0.402 (0.385) |
| Has multiple owners | 0.336 (0.361) | 0.368 (0.267) | 0.304 (0.423) | 0.334 (0.367) |
| London | 0.609 (0.227) | 0.554 (0.254) | 0.734 (0.179) | 0.587 (0.247) |
| North | 0.297 (0.620) | 0.506 (0.329) | 0.480 (0.456) | 0.283 (0.641) |
| Midlands | -0.131 (0.808) | -0.180 (0.729) | -0.063 (0.915) | -0.188 (0.732) |
| Celtic | 0.390 (0.453) | 0.328 (0.524) | 0.484 (0.406) | 0.361 (0.492) |
| G-I: wholesale/retail/transport/accommodation | 4.736 (0.981) | 0.814 (0.146) | 5.560 (0.991) | 4.628 (0.982) |
| J-N: business/professional/scientific services | 4.448 (0.982) | 0.485 (0.396) | 5.203 (0.992) | 4.315 (0.983) |
| O-U: public administration/education/health | 4.797 (0.981) | 0.759 (0.232) | 5.506 (0.991) | 4.701 (0.981) |
| Loan value | 0.000 (0.883) | -0.000 (0.913) | 0.000 (0.864) | 0.000 (0.932) |
| SUL mentoring | -0.556+ (0.098) | | -0.671+ (0.094) | -0.773+ (0.097) |
| SUL mentoring hours | | | | |
| Any mentoring (including SUL) | | -0.283 | | |

| | | | | |
|---|-------|---------|---------|---------|
| Non-SUL mentoring | | (0.386) | 0.631 | |
| | | | (0.332) | |
| Interaction - SUL and non-SUL mentoring | | | 0.187 | |
| | | | (0.814) | |
| Non-financial support | | | | -0.304 |
| | | | | (0.556) |
| Interaction - SUL mentoring and non-financial support | | | | 0.475 |
| | | | | (0.487) |
| Observations | 168 | 174 | 166 | 167 |
| Pseudo R-squared | 0.197 | 0.123 | 0.233 | 0.200 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-16: Summary of scheme improvement (mentoring) analysis on full-time employment change (absolute).

| Independent variable | Dependent variable | | | | |
|--|--|--|--|--|--|
| | Full-time employment change (absolute) OLS | Full-time employment change (absolute) OLS | Full-time employment change (absolute) OLS | Full-time employment change (absolute) OLS | Full-time employment change (absolute) OLS |
| Owner age | 0.009 (0.756) | -0.008 (0.786) | -0.012 (0.703) | -0.002 (0.955) | -0.010 (0.727) |
| Owner age squared | -0.000 (0.636) | 0.000 (0.633) | 0.000 (0.683) | -0.000 (0.989) | 0.000 (0.794) |
| Previous business experience | -0.063 (0.495) | -0.193+ (0.085) | 0.010 (0.929) | -0.093 (0.316) | -0.081 (0.381) |
| Has a degree | 0.016 (0.871) | -0.015 (0.904) | 0.130 (0.261) | -0.013 (0.895) | 0.016 (0.874) |
| is female | 0.065 (0.451) | 0.207+ (0.071) | 0.020 (0.849) | 0.051 (0.558) | 0.080 (0.361) |
| Unemployed pre-start | -0.055 (0.575) | -0.052 (0.668) | -0.076 (0.517) | -0.065 (0.508) | -0.078 (0.422) |
| Has multiple owners | 0.042 (0.669) | 0.201+ (0.098) | 0.140 (0.235) | 0.064 (0.518) | 0.065 (0.507) |
| London | 0.184 (0.154) | 0.247+ (0.087) | 0.153 (0.332) | 0.193 (0.137) | 0.172 (0.180) |
| North | 0.138 (0.334) | 0.046 (0.765) | 0.287+ (0.090) | 0.155 (0.289) | 0.103 (0.472) |
| Midlands | -0.024 (0.847) | 0.085 (0.534) | -0.053 (0.721) | -0.016 (0.900) | -0.063 (0.607) |
| Celtic | -0.046 (0.743) | 0.065 (0.726) | -0.068 (0.696) | -0.023 (0.874) | -0.070 (0.619) |
| G-I: wholesale/retail/transport/accommodation | 0.116 (0.367) | -0.223 (0.226) | -0.022 (0.889) | 0.135 (0.297) | 0.076 (0.565) |
| J-N: business/professional/scientific services | 0.147 (0.257) | -0.135 (0.431) | -0.040 (0.796) | 0.166 (0.204) | 0.118 (0.372) |
| O-U: public administration/education/health | 0.099 (0.537) | 0.229 (0.276) | -0.082 (0.667) | 0.139 (0.391) | 0.114 (0.480) |
| Loan value | -0.000 (0.523) | -0.000 (0.455) | -0.000 (0.407) | -0.000 (0.497) | -0.000 (0.544) |
| SUL mentoring | -0.087 (0.361) | | | -0.048 (0.652) | -0.119 (0.372) |

| | | | | | |
|---|-------|---------|---------|---------|---------|
| SUL mentoring hours | | 0.006+ | | | |
| | | (0.094) | | | |
| Any mentoring (including SUL) | | | 0.029 | | |
| | | | (0.817) | | |
| Non-SUL mentoring | | | | 0.276 | |
| | | | | (0.199) | |
| Interaction - SUL and non-SUL mentoring | | | | -0.180 | |
| | | | | (0.468) | |
| Non-financial support | | | | | -0.181 |
| | | | | | (0.251) |
| Interaction - SUL mentoring and non-financial support | | | | | 0.101 |
| | | | | | (0.578) |
| Observations | 168 | 76 | 174 | 166 | 167 |
| Pseudo R-squared | 0.084 | 0.289 | 0.073 | 0.093 | 0.090 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-17: Summary of scheme improvement (mentoring) analysis on business confidence in 2016.

| Independent variable | Dependent variable | | | | |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | Business confidence in 2016 Probit | Business confidence in 2016 Probit | Business confidence in 2016 Probit | Business confidence in 2016 Probit | Business confidence in 2016 Probit |
| Owner age | -0.176* | -0.300* | -0.161* | -0.177* | -0.169+ |
| | (0.038) | (0.049) | (0.040) | (0.046) | (0.052) |
| Owner age squared | 0.002+ | 0.004+ | 0.002+ | 0.002+ | 0.002+ |
| | (0.063) | (0.059) | (0.064) | (0.076) | (0.095) |
| Previous business experience | 0.294 | 0.539 | 0.329 | 0.318 | 0.316 |
| | (0.246) | (0.177) | (0.173) | (0.218) | (0.226) |
| Has a degree | -0.296 | -0.304 | -0.246 | -0.286 | -0.286 |
| | (0.248) | (0.514) | (0.319) | (0.269) | (0.271) |
| is female | -0.430+ | -0.270 | -0.464* | -0.453* | -0.509* |
| | (0.056) | (0.474) | (0.032) | (0.047) | (0.029) |
| Unemployed pre-start | -0.056 | -0.197 | 0.012 | -0.058 | 0.050 |
| | (0.825) | (0.655) | (0.960) | (0.821) | (0.847) |
| Has multiple owners | 0.166 | -0.118 | 0.183 | 0.144 | 0.142 |
| | (0.541) | (0.767) | (0.479) | (0.602) | (0.615) |
| London | -0.179 | 0.187 | -0.083 | -0.123 | -0.149 |
| | (0.560) | (0.702) | (0.777) | (0.692) | (0.635) |
| North | 0.276 | -0.055 | 0.387 | 0.327 | 0.303 |
| | (0.446) | (0.921) | (0.268) | (0.375) | (0.409) |
| Midlands | 0.083 | -0.215 | 0.055 | 0.129 | 0.125 |
| | (0.794) | (0.642) | (0.856) | (0.690) | (0.698) |
| Celtic | 0.613 | -0.118 | 0.644 | 0.687 | 0.652 |
| | (0.158) | (0.844) | (0.127) | (0.114) | (0.146) |
| G-I: wholesale/retail/transport /accommodation | 0.305 | 1.000+ | 0.413 | 0.307 | 0.427 |
| | (0.379) | (0.075) | (0.212) | (0.383) | (0.234) |
| J-N: business/professional/scientific services | -0.037 | 0.049 | 0.053 | -0.003 | -0.035 |
| | (0.907) | (0.917) | (0.863) | (0.992) | (0.914) |
| O-U: public administration/education/health | -0.242 | -0.175 | -0.046 | -0.199 | -0.241 |
| | (0.513) | (0.753) | (0.895) | (0.598) | (0.526) |
| Loan value | 0.000 | 0.000+ | 0.000 | 0.000 | 0.000 |
| | (0.382) | (0.077) | (0.362) | (0.334) | (0.411) |
| SUL mentoring | -0.725* | | | -0.562+ | -0.767* |
| | (0.014) | | | (0.072) | (0.041) |
| SUL mentoring hours | | 0.020 | | | |
| | | (0.146) | | | |
| Any mentoring (including SUL) | | | -0.487 | | |

| | | | | | |
|---|-------|-------|---------|---------|---------|
| | | | (0.103) | | |
| Non-SUL mentoring | | | | 4.572 | |
| | | | | (0.991) | |
| Interaction - SUL and non-SUL mentoring | | | | -4.747 | |
| | | | | (0.991) | |
| Non-financial support | | | | | 0.620 |
| | | | | | (0.280) |
| Interaction - SUL mentoring and non-financial support | | | | | -0.091 |
| | | | | | (0.883) |
| Observations | 240 | 110 | 253 | 238 | 239 |
| Pseudo R-squared | 0.149 | 0.211 | 0.127 | 0.159 | 0.175 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-18: Summary of scheme improvement (mentoring) analysis on skills and knowledge in 2016.

| Independent variable | Dependent variable | | | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | Skills level in 2016 Probit | Skills level in 2016 Probit | Skills level in 2016 Probit | Skills level in 2016 Probit | Skills level in 2016 Probit |
| Owner age | -0.010 (0.860) | -0.021 (0.828) | 0.005 (0.919) | 0.003 (0.960) | -0.003 (0.964) |
| Owner age squared | 0.000 (0.760) | 0.000 (0.798) | 0.000 (0.981) | 0.000 (0.961) | 0.000 (0.888) |
| Previous business experience | 0.191 (0.346) | 0.239 (0.467) | 0.206 (0.293) | 0.191 (0.351) | 0.203 (0.320) |
| Has a degree | -0.254 (0.196) | -0.407 (0.261) | -0.278 (0.146) | -0.244 (0.217) | -0.243 (0.220) |
| is female | -0.053 (0.771) | 0.239 (0.464) | -0.059 (0.740) | -0.070 (0.701) | -0.083 (0.649) |
| Unemployed pre-start | -0.150 (0.456) | -0.066 (0.850) | -0.169 (0.389) | -0.114 (0.573) | -0.104 (0.610) |
| Has multiple owners | -0.092 (0.668) | -0.263 (0.454) | -0.046 (0.825) | -0.103 (0.632) | -0.111 (0.610) |
| London | -0.484+ (0.064) | -0.380 (0.341) | -0.462+ (0.069) | -0.490+ (0.063) | -0.477+ (0.070) |
| North | 0.056 (0.848) | -0.370 (0.417) | 0.113 (0.690) | 0.110 (0.714) | 0.052 (0.858) |
| Midlands | -0.081 (0.763) | -0.106 (0.794) | -0.031 (0.907) | -0.066 (0.807) | -0.067 (0.802) |
| Celtic | -0.342 (0.244) | -0.196 (0.702) | -0.300 (0.305) | -0.350 (0.244) | -0.332 (0.261) |
| G-I: wholesale/retail/transport/accomm odation | 0.474+ (0.074) | 0.719 (0.117) | 0.524* (0.042) | 0.464+ (0.083) | 0.536* (0.047) |
| J-N: business/professional/scientific services | 0.386 (0.132) | 0.278 (0.508) | 0.438+ (0.081) | 0.360 (0.165) | 0.405 (0.117) |
| O-U: public administration/education/health | 0.163 (0.592) | -0.016 (0.975) | 0.271 (0.359) | 0.108 (0.727) | 0.148 (0.628) |
| Loan value | 0.000* (0.012) | 0.000** (0.003) | 0.000** (0.009) | 0.000* (0.018) | 0.000* (0.015) |
| SUL mentoring | -0.280 (0.166) | | | -0.322 (0.151) | -0.498+ (0.081) |
| SUL mentoring hours | | 0.008 (0.418) | | | |
| Any mentoring (including SUL) | | | -0.229 (0.284) | | |
| Non-SUL mentoring | | | | -0.003 | |

| | | | | | |
|---|-------|-------|-------|---------|---------|
| Interaction - SUL and non-SUL mentoring | | | | (0.996) | |
| | | | | 0.226 | |
| Non-financial support | | | | (0.680) | -0.027 |
| | | | | | (0.938) |
| Interaction - SUL mentoring and non-financial support | | | | | 0.373 |
| | | | | | (0.347) |
| Observations | 240 | 110 | 253 | 238 | 239 |
| Pseudo R-squared | 0.084 | 0.175 | 0.083 | 0.084 | 0.092 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Table A-19: Summary of scheme improvement (mentoring) analysis on personal confidence in 2016.

| Independent variable | Dependent variable | | | | |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | Personal confidence in 2016 Probit | Personal confidence in 2016 Probit | Personal confidence in 2016 Probit | Personal confidence in 2016 Probit | Personal confidence in 2016 Probit |
| Owner age | 0.067 (0.346) | 0.094 (0.461) | 0.055 (0.418) | 0.076 (0.298) | 0.057 (0.443) |
| Owner age squared | -0.001 (0.426) | -0.001 (0.484) | -0.001 (0.506) | -0.001 (0.371) | -0.001 (0.526) |
| Previous business experience | -0.130 (0.630) | 0.044 (0.925) | -0.237 (0.355) | -0.149 (0.603) | -0.122 (0.665) |
| Has a degree | 0.416 (0.103) | -0.334 (0.512) | 0.443+ (0.073) | 0.421 (0.112) | 0.353 (0.186) |
| is female | -0.500* (0.044) | -0.072 (0.881) | -0.438+ (0.066) | -0.503+ (0.050) | -0.586* (0.027) |
| Unemployed pre-start | 0.084 (0.753) | -0.199 (0.725) | 0.123 (0.633) | 0.086 (0.751) | 0.203 (0.467) |
| Has multiple owners | 0.417 (0.210) | 0.694 (0.210) | 0.417 (0.192) | 0.379 (0.277) | 0.337 (0.335) |
| London | -0.127 (0.734) | 0.008 (0.989) | 0.048 (0.892) | -0.210 (0.593) | -0.037 (0.925) |
| North | -0.075 (0.852) | -0.048 (0.943) | 0.074 (0.845) | -0.071 (0.866) | -0.007 (0.987) |
| Midlands | -0.329 (0.362) | -0.513 (0.416) | -0.145 (0.670) | -0.296 (0.439) | -0.237 (0.528) |
| Celtic | -0.438 (0.257) | -0.078 (0.902) | -0.252 (0.498) | -0.507 (0.220) | -0.366 (0.357) |
| G-I: wholesale/retail/transport /accommodation | -0.531 (0.205) | -4.572 (0.989) | -0.292 (0.434) | -0.456 (0.299) | -0.342 (0.431) |
| J-N: business/professional/scientific services | -0.808+ (0.052) | -4.767 (0.989) | -0.534 (0.146) | -0.781+ (0.071) | -0.670 (0.115) |
| O-U: public administration/education/health | -0.457 (0.352) | | -0.261 (0.553) | -0.501 (0.323) | -0.398 (0.427) |
| Loan value | -0.000 (0.469) | -0.000 (0.207) | -0.000 (0.686) | -0.000 (0.372) | -0.000 (0.332) |
| SUL mentoring | 0.385 (0.140) | | | 0.213 (0.451) | 0.304 (0.338) |
| SUL mentoring hours | | 0.016 (0.377) | | | |
| Any mentoring (including SUL) | | | 0.290 | | |

| | | | | | |
|---|-------|-------|---|---------|---------|
| | | | (0.274) | | |
| Non-SUL mentoring | | | | -0.239 | |
| | | | | (0.667) | |
| Interaction - SUL and non-SUL mentoring | | | | | |
| Non-financial support | | | | | 0.773+ |
| | | | | | (0.091) |
| Interaction - SUL mentoring and non-financial support | | | | | -0.008 |
| | | | | | (0.989) |
| <hr/> | | | | | |
| Observations | 240 | 91 | 253 | 208 | 239 |
| Pseudo R-squared | 0.102 | 0.147 | 0.083 | 0.099 | 0.157 |
| | | | Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01) | | |

Table A-20: Summary of longitudinal, panel-data regression results from 2014-2016 (1/2)

| | Dependent variable | | | | |
|--|----------------------|---------------------|--------------------------|-------------------------------|------------------------------------|
| | natural log of sales | number of employees | natural log of employees | number of full time employees | natural log of full time employees |
| Independent variables | | | | | |
| SUL | -0.740* | -2.098 | -0.0633 | -1.677 | -0.122 |
| | (0.035) | (0.152) | (0.761) | (0.205) | (0.621) |
| Year=2015 | 0.0136 | 1.300 | 0.148 | 1.300 | 0.158 |
| | (0.931) | (0.363) | (0.332) | (0.307) | (0.323) |
| Year=2016 | 0.190 | 2.018 | 0.0852 | 2.170 | 0.152 |
| | (0.412) | (0.479) | (0.690) | (0.392) | (0.523) |
| SUL * Year=2015 | 0.674* | 0.552+ | -0.0341 | 0.180 | -0.0134 |
| | (0.032) | (0.092) | (0.870) | (0.488) | (0.958) |
| SUL * Year=2016 | 0.956** | 0.625+ | 0.0521 | 0.268 | -0.0126 |
| | (0.006) | (0.058) | (0.802) | (0.316) | (0.959) |
| Owner age | -0.0755+ | 0.0406 | -0.00670 | -0.161 | -0.0461 |
| | (0.076) | (0.883) | (0.830) | (0.584) | (0.175) |
| Owner age squared | 0.000792 | -0.000424 | 0.0000789 | 0.00196 | 0.000562 |
| | (0.112) | (0.900) | (0.834) | (0.582) | (0.172) |
| Previous business experience | 0.445** | -1.022 | 0.0944 | -0.897 | 0.0394 |
| | (0.005) | (0.317) | (0.468) | (0.304) | (0.801) |
| Degree | -0.277+ | -1.853 | -0.0750 | -1.718 | -0.311* |
| | (0.068) | (0.309) | (0.522) | (0.296) | (0.032) |
| Female | -0.201 | -0.287 | 0.142 | -0.466 | 0.186 |
| | (0.204) | (0.789) | (0.260) | (0.617) | (0.254) |
| Unemployed pre-start | -0.538** | -0.946 | -0.151 | -0.696 | -0.178 |
| | (0.004) | (0.143) | (0.208) | (0.217) | (0.204) |
| Multiple owners | 0.717** | 3.769+ | 0.625** | 3.047 | 0.394* |
| | (0.000) | (0.074) | (0.000) | (0.106) | (0.013) |
| London | -0.343 | 0.491 | 0.153 | 0.502 | 0.0991 |
| | (0.183) | (0.393) | (0.287) | (0.299) | (0.527) |
| North | 0.193 | 2.037+ | 0.435* | 1.312 | 0.306 |
| | (0.391) | (0.094) | (0.022) | (0.150) | (0.157) |
| Midlands | -0.0881 | 0.0916 | -0.0353 | 0.0297 | -0.0931 |
| | (0.667) | (0.848) | (0.813) | (0.938) | (0.606) |
| Celtic | 0.225 | 3.467 | 0.195 | 3.060 | 0.143 |
| | (0.252) | (0.245) | (0.237) | (0.256) | (0.508) |
| G-I: wholesale/retail/transport/accommodation | 0.206 | 2.971 | 0.0831 | 2.306 | -0.195 |
| | (0.425) | (0.326) | (0.713) | (0.398) | (0.523) |
| J-N: business/professional/scientific services | 0.00144 | 0.0549 | -0.327 | -0.0159 | -0.365 |
| | (0.995) | (0.939) | (0.103) | (0.980) | (0.129) |
| O-U: public administration/education/health | -0.340 | 0.934 | -0.0636 | 0.432 | -0.405 |

| | | | | | |
|----------------------|----------|---------|---------|---------|---------|
| | (0.148) | (0.332) | (0.772) | (0.592) | (0.152) |
| Business age | 0.0629 | -0.836 | -0.0325 | -1.036 | -0.0475 |
| | (0.742) | (0.553) | (0.767) | (0.412) | (0.713) |
| Business age squared | -0.00722 | 0.0188 | 0.0184 | 0.0521 | 0.0310 |
| | (0.866) | (0.777) | (0.393) | (0.419) | (0.111) |
| Observations | 691 | 864 | 331 | 863 | 234 |
| No. of groups | 381 | 444 | 190 | 444 | 129 |
| R-squared (within) | 0.244 | 0.101 | 0.058 | 0.097 | 0.127 |
| R-squared (overall) | 0.159 | 0.031 | 0.238 | 0.026 | 0.205 |
| R-squared (between) | 0.148 | 0.040 | 0.211 | 0.036 | 0.198 |

Note: p-values in parentheses (+ p<0.10 * p<0.05 ** p<0.01)

Annex B: Further sensitivity analysis

This annex provides a set of further sensitivity analysis that has been completed on the impact and value for money analysis. For clarity, the Annex focuses on Economic Costs only. The sensitivity analysis has been undertaken focused on adjusting both benefits (related to the level of non-deadweight for new start-ups in the self-reported analysis), and costs (related to the costs identified by Delivery Partners).

Sensitivity on start-up additionality

The Table below presents a sensitivity analysis taking into account evidence from the econometric analysis on the effect of the programme on the start-up rate, specifically the findings of a 13% uplift in the chance of starting-up amongst the beneficiary group relative to the comparison group.

This 13% has been used as a proxy to adjust the assumption in the 'main case' for the beneficiary survey cohort that all turnover for beneficiaries that indicated their business would not have started-up without the programme is additional (i.e. those individuals that started-up a new business that stated '*The business would not have been started at all*'), to an assumption that 13% of the turnover is additional. Note that no changes have been made to those beneficiaries that identified partial analysis in the Year 2 survey, or for beneficiaries who came to the programme with an (early-stage) existing firm. The analysis leads to lower overall GVA figure (reducing by around a quarter), however, the BCR remains positive at 2.2:1, compared to the main case of 3.0:1.

| | Economic costs (£k) | GVA benefits (£k) | Benefit Cost Ratio (excluding multipliers) |
|--|---------------------|-------------------|--|
| Main case (Survey cohort only) | 1,400 | 4,227 | 3.0 |
| Sensitivity case: non-deadweight at 13% for 'fully additional' new start-ups | 1,400 | 3,126 | 2.2 |

Sensitivity on Delivery Partner costs

The Table below presents a sensitivity analysis taking into account evidence from the Delivery Partner survey that the actual costs of delivering the programme are higher than the finance provided by SULCo. Care is needed here given the flexibility in the programme, Delivery Partners are able to deliver the pre-application and mentoring support to different levels of intensity, and via different methods (e.g. face-to-face, as opposed to online), which will have implications for costs.

As noted in the report, 15 of the 23 Delivery Partners that completed the online survey indicated that the finance provided by SULCo did not cover the full cost of delivering the programme (and

eight that it did). The Delivery Partners that indicated the non-lending costs did not cover the costs of delivering the programme accounted for approximately 1,600 loans in the evaluation period. Delivery Partners that indicated the finance provided did cover the costs accounted for approximately 1,400 loans. Weighting the data by the number of loans delivered in the evaluation period, and (where relevant) the shortfall per loan identified in the survey, suggests an average 'short-fall per loan' of around £170. Equivalent analysis focused on the Year 2 beneficiary survey cohort only indicated a 'short-fall per loan' of £118. To provide a sensitivity test, the upper value has been used, with £170 added to the non-lending costs per loan in the value for money model.

The analysis leads to a marginally higher overall cost for the programme for the Year 2 beneficiary survey group (c.£50,000 in discounted Economic Costs), reducing the BCR slightly to 2.9:1 from the main case of 3.0:1. Note that there was no evidence from the evaluation that the non-lending costs may have been lower than those assumed in the model: a run of the analysis assuming a lower cost has therefore not been undertaken.

| | Economic costs (£k) | GVA benefits (£k) | Benefit Cost Ratio (excluding multipliers) |
|---|--------------------------------|------------------------------|---|
| Main case | 1,400 | 4,227 | 3.0 |
| Sensitivity case: non-lending costs increased to reflect potential full costs of programme delivery | 1,454 | 4,227 | 2.9 |

Annex C Findings from the Year 2 Delivery Partner Survey

Introduction

This annex analyses the results of an online survey sent to all Deliver Partners (DPs) involved in the programmes. In total, 23 DPs responded to the survey; as noted in the main report one of the DPs offered only partial responses; these have been included in the analysis where relevant, however in most cases the results are based on 22 responses.

Changes to delivery methods

Pre-application support

The survey results indicate that in the main, pre-application support delivery remains unchanged from the previous survey. A total of 19 respondents were DPs at the time of the Year 1 survey. Of these, the majority (15) stated that the business topics covered in the pre-application support have remained unchanged over the last 12 months. Of the respondents that reported a change in the topics covered, most selected 'Other' as the new topic covered. Examples of this 'other' additional guidance included trademarks and intellectual property, marketing, book keeping, and legal requirements.

The format of pre-application support delivery remains largely unchanged amongst these 19 respondents. Only four noted a change to their delivery format with all pointing to a movement to one-to-one based delivery, either by phone or in person. These formats were the most frequently cited delivery options in the Year 1 report. Four respondents also said that those delivering the support had changed with all saying that they now made more use of their own staff. Again, this was the most popular avenue in the Year 1 DP survey.

Three DPs were not involved in the programme at the time of the Year 1 report. Nevertheless, all three provide guidance on business plans and cash flow forecasts which were also the two most frequently cited topics in Year 1 DP survey. All three providers also deliver their support one-to-one, either by phone or face-to-face, with their own staff being responsible for providing the support. The basic pre-application delivery approach and format amongst these 'new' providers are therefore in line with those of the more established providers.

Table C-1: *Do you tailor your pre-application support offer based on the needs of particular groups or types of individual? If yes, please explain how you tailor the support and to which particular groups or types of individual?*

| Answer | Number of respondents |
|-----------------|-----------------------|
| Yes | 15 |
| No | 7 |
| Total answering | 22 |

Respondents were also asked whether they tailor support based on the needs of particular beneficiaries. As shown above, approximately two-thirds do. Four DPs said that they provide support by telephone, email or Skype to help provide a more an offer that is more flexible in terms of time and geography. Three mentioned that they specifically choose one-to-one support to help ensure that support is tailored.

Mentoring

As with the pre-application support, delivery of mentoring support has changed little over the last 12 months amongst respondent DPs. Only two of the 19 respondents said their method of delivery (e.g. one-to-one vs groups, and face-to-face vs online) has changed. However, five stated they now use different individuals to deliver mentoring. Of these five, four pointed to using their own staff more for mentoring. Two also said they were also now using paid contractors and volunteers in addition to their own staff.

As shown below, the survey indicates some issues in terms of mentor capacity for DPs. The surveyed indicates that issues of accessing an appropriate 'quantity' of mentors rather than their 'quality' appears to have been the issue for most DPs that have experienced issues. Individual DPs made comments around the difficulties in finding mentors with the specific knowledge and experience requested by mentees, and the trouble in finding mentors to cover the full geographic area covered by the DP. Three DPs said that they had experienced capacity issues in terms of both the quantity and quality of mentors.

Table C-2: *Has your organisation experienced any capacity issues (in terms of quantity or quality) in relation to delivering mentoring support in the past 12 months?*

| Answer | Number of respondents |
|----------------|-----------------------|
| Yes – quantity | 10 |
| Yes – quality | 4 |
| No | 11 |

DPs were asked what made for effective delivery of mentoring support. A range of responses were provided, but a common theme was having good quality mentors who were well-engaged with the programme and its beneficiaries. One DP for instance spoke of how "*mentoring works well when the mentor is fully engaged*" while another described how they "*have an excellent core of volunteers who area passionate about the scheme and about business.*" Another commonly cited area was having a flexible delivery approach: offering mentoring by emails, telephone, and Skype as needed in order to ensure that beneficiaries remained engaged with their mentor.

Some respondents also provided feedback on what tended to negatively affect the delivery of mentoring. Seven respondents spoke about problems in getting businesses to take-up mentoring support in the first place. One DP summarised the situation as follows: "*Getting applicants to engage with the mentor can be a struggle as they are busy starting their new business*" while

another highlighted the difficulty in *"Encouraging people to stay in regular contact rather than just reaching out to the mentor when they have a problem."*

Wider support offered

All but one of the DPs provide some form of support to beneficiaries after they have completed the programme-funded mentoring. The types of support provided are shown in more detail below. As indicated, the most commonly offered follow-on support is the signposting to other forms of finance and other sources of business support. A number of DPs indicated that they provide 'other' forms of support, which included invitations to events and networking forums, and access to growth hubs.

Table C-3: *Does your organisation offer any of the following kinds of support to individuals supported by Start Up Loans after they have completed the mentoring funded by the programme?*

| Answer | Number of respondents |
|--|-----------------------|
| Further mentoring support (not funded by Start Up Loans) | 8 |
| Follow-on finance | 12 |
| Signposting to other sources of finance | 17 |
| Signposting to other sources of business support | 18 |
| Other types of aftercare | 5 |

The programme's importance to DPs

Only two DPs said that they were not involved in activities other than Start Up Loans. Eleven DPs said they provided other forms of finance (including equity and mezzanine as well as loans), and eight that they offered other forms of business support or mentoring, with three of these being involved in the Start & Grow programme based in the East Midlands.

DPs were asked to estimate what proportion of their time is spent on activity related to the Start Up Loans programme. As shown in the table below, half (11 of the 22 DPs), indicated that Start Up Loans accounted for at least 50% of their time. This is higher than the corresponding one for Year 1, (at around a quarter); This may suggest that the involvement in the programme has become more time-consuming for DPs, although it may also reflect that those DPs that remain part of the programme, and responded to the survey, are more likely to spend a high proportion of their time on delivering the programme.

Table C-4: *Broadly what proportion of the time spent on delivering activities is accounted for by Start Up Loans?*

| Answer | Number of respondents |
|-----------------|-----------------------|
| 0-25% | 3 |
| 26-50% | 8 |
| 51-75% | 4 |
| 76-100% | 5 |
| Total answering | 20 |

As shown below, for nearly half of the respondent DPs surveyed, Start Up Loans is essential to financial sustainability. This is a substantial increase in the figures from the Year 2 survey where under a fifth provided this response again this may reflect the rationalisation in the number of DPs, and the importance of the programme to those that remain DPs. The programme was also regarded as essential/very important to 20 of the 22 DPs in terms of achieving the organisation's objectives relating to society/community.

Table C-5: *How important is the Start Up Loans programme to your organisation in terms of financial sustainability?*

| Answer | Number of respondents |
|--------------------|-----------------------|
| Essential | 10 |
| Very Important | 7 |
| Somewhat Important | 5 |
| Slightly Important | - |
| Not Important | - |
| Total answering | 22 |

Table C-6: *How important is the Start Up Loans programme to your organisation in terms of achieving your organisation's society/community?*

| Answer | Number of respondents |
|----------------|-----------------------|
| Essential | 10 |
| Very Important | 10 |

| | |
|--------------------|----|
| Somewhat Important | 2 |
| Slightly Important | - |
| Not Important | - |
| Total answering | 22 |

Referrals and applications

As shown in the table below, DPs have relied on a wide range of different sources to help generate leads and referrals for their own provision of the Start Up Loans programme. Two however, stand out as being particularly important: direct marketing by the DPs themselves, and referrals from the national website.

Table C-7: How important are the following sources in generating referrals/leads to your organisation for support from the Start Up Loans programme?

| Answer | Not at all important | | Slightly important | | Moderately important | | Very important | |
|---|----------------------|-----|--------------------|-----|----------------------|-----|----------------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Referrals from the national website | 1 | 5% | 0 | 0% | 2 | 9% | 19 | 86% |
| National marketing campaigns | 0 | 0% | 3 | 14% | 9 | 41% | 10 | 45% |
| Marketing delivered by your organisation ⁶⁷ | 0 | 0% | 2 | 10% | 4 | 20% | 15 | 71% |
| Referrals from other public sector programmes ⁶⁸ | 3 | 14% | 2 | 9% | 5 | 23% | 11 | 50% |

⁶⁷ Figures exclude one 'Don't know response.'

⁶⁸ Figures exclude one 'Don't know response.'

| | | | | | | | | |
|--|---|-----|---|-----|----|-----|----|-----|
| Referrals from the private sector (e.g. banks) | 1 | 5% | 3 | 14% | 7 | 32% | 11 | 50% |
| Referrals from social / community groups | 3 | 14% | 4 | 18% | 10 | 45% | 5 | 23% |
| Social media | 3 | 14% | 4 | 18% | 7 | 32% | 8 | 36% |
| Referral from another beneficiary | 3 | 14% | 3 | 14% | 7 | 32% | 9 | 41% |

The conversion rate of these referrals/leads to an application and then to a loan has varied widely, as shown below. Table B-7 sets out the self-reported conversion rates from SUL national website referrals to an application. One respondent reported claimed that 91-100% of referrals and leads resulted in an application but for over half the respondents, (13) the referral to application conversion rate was less than 20%.

A similar picture is also seen in the conversion rate of applications received to applications being successful. As before, there are only one or two instances of DPs reporting that the majority of applications actually go on to receive a loan: two respondents said that 61-80% of applications were successful. The majority however, said that their conversion rate was much lower with nearly two-thirds of respondents (14) saying that less than 21% of applications received were ultimately successful.

Table C-8: *Approximately, what proportion of these referrals/leads have led to an application?*

| Answer | Number of respondents |
|-----------------|-----------------------|
| 0-10% | 8 |
| 11-20% | 5 |
| 21-30% | 3 |
| 31-40% | 2 |
| 51-60% | 2 |
| 91-100% | 1 |
| Don't know | 1 |
| Total answering | 22 |

Table B-8: *And of those applications you have received, approximately what proportion were successful?*

| Answer | Number of respondents |
|-----------------|-----------------------|
| 0-10% | 9 |
| 11-20% | 5 |
| 31-40% | 2 |
| 41-50% | 2 |
| 51-60% | 1 |
| 61-70% | 1 |
| 71-80% | 1 |
| Don't know | 1 |
| Total answering | 22 |

In terms of the reasons why loan applications may not have been successful, three factors were particularly frequently cited by the respondent. As shown in the table below, over three quarters of respondents said that the viability of the underpinning business idea was a major reason for rejecting applications and is therefore a real concern across many of the respondent DPs. Two other factors were each cited by ten respondents: the realism of the cash flow forecast provided by applicants, and applicants' poor credit history (cited in 'Other' answers).

Table C-9: *For those applications that are unsuccessful, what are the three most common reasons why the application does not succeed?*

| Answer | Number of respondents |
|---|-----------------------|
| Viability/realism of the underpinning business idea | 17 |
| Quality of the business plan | 4 |
| Viability/realism of cash flow forecasts | 10 |
| Quality or coverage of the market research | 1 |
| Quality or coverage of the competitor analysis | 0 |
| Business experience if the applicant | 5 |

| | |
|--|----|
| Skills and capabilities of the applicant | 8 |
| Scale of finance required to make the business plan viable | 5 |
| Don't know | 0 |
| Other | 13 |

Programme outcomes

Respondents were asked to provide their thoughts on how far the programme had helped generate different programme outcomes. As shown in the table below, the respondent group has identified two central outcomes that SUL has been important in helping achieve. Of the 22 DPs, 20 said that the programme had 'to a large extent' helped create new businesses that would not have been started otherwise.

Table C-10: To what extent has the programme led to the following outcomes?

| Answer | To a large extent | | To a moderate extent | | To a small extent | | Not at all | | Don't know | | Total number of answers |
|--|-------------------|----|----------------------|----|-------------------|----|------------|---|------------|---|-------------------------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | |
| Creation of new businesses that would not have started otherwise | 20 | 91 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Improved chances of survival of businesses | 10 | 45 | 11 | 50 | 1 | 5 | 0 | 0 | 0 | 0 | 22 |
| Growth of businesses, in terms of employment and/or turnover | 5 | 23 | 16 | 73 | 1 | 5 | 0 | 0 | 0 | 0 | 22 |
| Development of new skills relating to business by individuals | 5 | 23 | 14 | 64 | 2 | 9 | 0 | 0 | 1 | 5 | 22 |
| Improvements in confidence and attitudes to | 12 | 55 | 7 | 32 | 3 | 14 | 0 | 0 | 0 | 0 | 22 |

| | | | | | | | | | | | |
|---|----|----|---|----|---|----|---|---|---|---|----|
| entrepreneurship of those supported | | | | | | | | | | | |
| Improvements in the employment prospects of those supported | 10 | 45 | 9 | 41 | 3 | 14 | 0 | 0 | 0 | 0 | 22 |

The feedback from DPs on which groups or cohorts may have benefited more from involvement in the Start Up Loans programme varied. Six DPs explicitly said there was no one beneficiary group that had particularly benefited from the programme. Where DPs did cite groups that had gained more from the programme than others, again there was no consistent group identified. Two DPs identified female entrepreneurs (as self-employment and home-based businesses gave greater flexibility for a reasonable work/life balance, and helped to minimise outgoings), with other DPs identifying other groups including the long-term employed, and individuals looking to start-up/develop retail businesses.

The pre-application support stage was regarded by a plurality of DPs as the most important aspect of the programme in delivering these outcomes, with the financial support also commonly cited. Mentoring was less prominent in the responses in the Year 2 survey (as was the case with the Year 1). This may reflect in part some of the issues that DPs have faced in delivering mentoring, and more broadly the time-paths to impact of mentoring.

Table C-11: How would you rank the elements of the support in terms of their importance in generating these outcomes overall, i.e. which element of the programme is most important?

| Answer | 1 = Most important | | 2 = Second most important | | 3 = Third most important | | Total number of answers |
|-------------------------|--------------------|-----|---------------------------|-----|--------------------------|-----|-------------------------|
| | No. | % | No. | % | No. | % | |
| Pre-application support | 13 | 62% | 5 | 24% | 3 | 14% | 21 |
| Financial support | 7 | 33% | 9 | 43% | 5 | 24% | 21 |
| Mentoring support | 2 | 9% | 7 | 32% | 13 | 59% | 22 |

DPs were generally positive regarding the extent to which the programme has led to changing perceptions of enterprise and entrepreneurships. Mostly this was cited as being a 'word of mouth' effect i.e. as more organisations became aware of the programme, society becomes more familiar of the barriers to enterprise and how these can be addressed. One DP remarked: "*It is slowly changing the common misconception that it is impossible for start-ups to achieve finance. This is reflected in the conversations I have at networking events.*" Another commented on how

SUL had helped demonstrate to more people that starting a business was a viable option for them.

Table C-12: *Do you think that the Start Up Loans programme has led to changing perceptions of enterprise and entrepreneurship amongst the wider population in the UK?*

| Answer | Number of respondents |
|------------------------|-----------------------|
| Yes, to a great extent | 6 |
| Yes, to some extent | 13 |
| No, not at this point | 3 |
| Total answering | 22 |

A majority of DPs also thought that SUL had helped change perceptions of financing start-ups amongst the mainstream finance sector. However, support for this notion was far from universal. Four DPs described how elements of the finance sector (including the CDFA sector and mainstream banks) still had poor knowledge of the programme and how this was affecting the number of referrals they received. One DP for instance remarked about there were “*Very few referrals and general lack of knowledge of the scheme when speaking to banks and other lenders.*”

Table C-13: *Do you think that the Start Up Loans programme has led to changing perceptions of enterprise and entrepreneurship amongst the wider population in the UK?*

| Answer | Number of respondents |
|------------------------|-----------------------|
| Yes, to a great extent | 6 |
| Yes, to some extent | 15 |
| No, not at this point | 1 |
| Total answering | 22 |

DPs were also asked ‘Have there been any other outcomes of the programme, either positive or negative, not captured above?’ Six DPs offered a response, with answers including improved confidence amongst beneficiaries, and offering an accessible funding stream for businesses. A number of DPs identified issues related to the management of the programme (e.g. interest rates not being competitive, and the credit criteria being too strict) but these do not cover outcomes for programme beneficiaries.

Arrears

DPs were asked to provide their perspective on the most important factors that influence whether an individual is in arrears on their Start Up Loan. A range of factors were identified including not

taking up the programme's mentoring offer (cited by three), a poor credit history (cited by four), and adverse unforeseen events (cited by five). However two factors were frequently: poor sales and (cited by eight) poor cash flow and/or financial planning (cited 10); this suggests a strong observed/perceived link between business performance and loan re-payment (as may be expected).

Programme costs

Across the DPs responding to the survey, pre-application support accounted for the largest share of expenditure of the non-lending finance provided to DPs (i.e. money paid to DPs by SULCo to meet the costs of programme delivery and administration, excluding capital for lending); an average of 41% across the 22 DP respondents to the survey. Administration accounted for nearly a quarter of non-lending finance expenditure, with an average of 23%.

Consistent with the findings from the Year 1 DP survey, the feedback indicated that for a significant proportion of DPs, the non-lending finance did not cover in full the cost of delivery the programme, as shown in the Table below. Eight of the 22 DPs did not respond to this question.

Table C-14: *Thinking about the costs of delivering the non-loan elements of the programme, over the past 12 months what proportion of these costs are covered by the non-lending finance provided to you by the Start Up Loans Company?*

| Answer | Number of respondents |
|-----------------|-----------------------|
| 0-10% | 1 |
| 11-20% | 0 |
| 21-30% | 3 |
| 31-40% | 0 |
| 41-50% | 2 |
| 51-60% | 1 |
| 61-70% | 3 |
| 71-80% | 3 |
| 81-90% | 0 |
| 91-100% | 1 |
| Total answering | 14 |

Eleven DPs provided an estimate on the funding shortfall 'per loan' that they experienced in programme delivery: this varied from £100-£199 to £500+ per loan, Respondent DPs filled this

funding gap in two main ways: relying on their own finances and revenues, or diverting money they receive from other contracts.

When asked to explain *why* programme costs were higher than the amount provided by non-lending finance, nine respondents remarked that the intensive nature of support provided, especially at pre-application stage was a major factor. One DP summarised the situation as follows: “*We work with many clients who are looking to apply but not all complete the process. We work with all applicants on a one to one basis and have several meetings with each applicant to complete the application process.*” A small number of DPs stated that in their view, the administrative burden of the programme was high, leading to a shortfall against the costs of delivery.

There was no consistent feedback on whether this issue (of the non-lending finance not covering delivery costs) has become more or less of an issue over the past 12 months, and in most cases (8 of 14), DPs indicated that there was no change.

Table C-15: *Has this shortfall become more or less of an issue for your organisation over the past 12 months?*

| Answer | Number of respondents |
|------------------|-----------------------|
| Less of an issue | 2 |
| No change | 8 |
| More of an issue | 4 |
| Total answering | 14 |

Programme satisfaction and potential improvements

There was considerable diversity in the responses on the main achievements of the programme in the past 12 months. Two themes were prominent: supporting new businesses that might not otherwise have had a chance to develop (referenced by nine respondents), and the improved provision of finance across the country (cited by five).

In terms of programme delivery, one of the areas that seemed to have worked well over the last 12 months has been the introduction of the EKYC platform which according to five respondents, has helped to ease paperwork burdens both on the DP and clients. One respondent summarised this as follows: “*EKYC has reduced level of paperwork for both DP and client and helped turn around loan applications in a shorter period of time.*” Four respondents also spoke about how well they believed a tailored and/or one-to-one based support at pre-application stage had been a notable feature of programme delivery over the past year.

There was also a range of responses in terms of what has worked less well over the last 12 months. Three issues stood out in particular: staff turnover at SULCo leading to some issues in terms of continuity; a reduction in application numbers and quality; and increased administrative requirements.

However, amongst the DPs surveyed, satisfaction with the programme and SULCo was generally high, especially so with the management of SULCo.

Table C-16: How satisfied are you with the following aspects of the programme?

| Answer | Very satisfied | | Satisfied | | Dissatisfied | | Very dissatisfied | | Total number of answers |
|--|----------------|-----|-----------|-----|--------------|----|-------------------|----|-------------------------|
| | No. | % | No. | % | No. | % | No. | % | |
| The overall delivery model | 4 | 19% | 17 | 81% | 0 | 0% | 0 | 0% | 21 |
| The requirements placed on Delivery Partners (support types, monitoring information etc.) | 4 | 18% | 17 | 77% | 1 | 5% | 0 | 0% | 22 |
| The management of the programme by SULCo, including the information / support / guidance provided to Delivery Partners | 7 | 33% | 13 | 62% | 1 | 5% | 0 | 0% | 21 |

In terms of improving the programme, the most common message were around changes to the management and administrative systems underpinning the programme: these issues are being addressed by SULCo. Some specific comments are set out below:

"It would be a big help if all common documentation was standardised. Hopefully the common application form will mean less duplication and a direct link between CRM and BFS would reduce the amount of time and work we spend on inputting client details. Regional advertising would help raise the profile of the scheme."

"Reduce constant changes to minimum standards and credit policies. Should be changed 1 per year at a minimum so DP's can prepare properly for changes."

"Allocate more funding to deliver, or manage more of the administration centrally e.g. bank checks, credit checks, document checking."

"Important changes presented by way of weekly updates can sometimes be lost amongst all the other data. It would be helpful if these could be presented separately alongside updated policy and procedures."

"Greater consultation with DPs about probable changes might allow bad decisions or inefficient processes to be avoided."

Annex D: Method to identify self-reported deadweight

Overview

The initial estimate of self-reported deadweight involved developing a non-deadweight ratio at the level of individual respondents to the beneficiary survey. This respondent-level approach was undertaken to ensure that the additionality and subsequent impact analysis accounted for the following:

- The range of programme support in terms of scale and nature taken up, enabling a segmented treatment of deadweight by these key factors. This ensured that the impact assessment accounted for the scale of benefits associated with different beneficiaries.
- Multiple elements of partial additionality for some of the beneficiaries (that is where, for example, the effects of the programme were on both the scale of the business developed and also the timing of when the business was developed).

The individual-level ratios were applied to the data on gross firm-level benefits (e.g. turnover generated and employment created) to provide net outputs/outcomes (before taking into account displacement that was considered separately in the value for money model drawing on the survey findings). Note that the findings on finance additionality from the Year 1 analysis (that is closely linked to outcome additionality) were *not* used in the analysis on deadweight. However, financial additionality is accounted for in the value for money model when considering economic costs in line with standard practice and guidance from the British Business Bank.

Detailed method

The respondent-level non-deadweight ratio was based on respondents' answers to a survey question on whether or not the business would have started/developed at the same time, scale and quality without Start Up Loans. The question used in the Year 2 survey was the same as that used in Year 1 to ensure consistency between the two waves of data. Respondents that identified full non-deadweight (i.e. the business would not have started/up developed at all without the programme) were given a non-deadweight value of 1, and respondents that identified full deadweight (i.e. the business would have started/developed at the same time, scale and quality without the programme) were given a non-deadweight value of 0.

If the respondent stated that the business would have started/developed, but at a different **scale**, non-deadweight was considered based on the responses to a follow-up question on the estimated scale of the business, at the point of the survey, if no support had been received from the programme. The options presented and ranges used in the analysis are set out below. For example, where a respondent stated that without the programme the business would have been 'Less than 25% of current size', non-deadweight was assumed to be 0.875 (i.e. 87.5% of the turnover was additional to the programme).

Table D1: Scale effects assumptions

| Roughly how large would the business be now in terms of turnover? | Non-deadweight value |
|--|-----------------------------|
| Less than 25% of current size | 0.875 |
| 25-50% of current size | 0.62 |
| 51-75% of current size | 0.37 |
| 76-100% of current size | 0.12 |

If the respondent stated that the business would have started/developed at the same scale, but at a different **time**, the acceleration brought about by Start Up Loans was considered based on a follow-up question on how much longer it would have taken for the business to start-up or develop. The options presented and ranges used in the analysis are set out below. For example, where a respondent stated that without the programme the business would have started-up over 2 years later, non-deadweight was assumed to be 0.75 (i.e. 75% of the turnover was additional to the programme). It is worth noting that identifying the impacts of timing effects are challenging and there may be long-term effects over a long period of time (e.g. in two or three years' time a business that was brought forward by say 1-3 months may still be 1-3 months behind where it would have been without the intervention, meaning there is an on-going benefit). The approach adopted accounts for this uncertainty and reflects that this is an initial estimate of deadweight that will be added-to as the evaluation progresses with more robust data on the benefits of the programme.

Table D2: Timing effects assumptions

| Approximately how much longer do you think it would have taken you to start up/develop the business, if you had not been involved with Start Up Loans? | Non-deadweight value |
|---|-----------------------------|
| Less than a month | 0.00 |
| 1 to 3 months | 0.15 |
| 4-6 months | 0.30 |
| 7-12 months | 0.45 |
| Over 1 year but up to 2 years | 0.6 |
| Over 2 years | 0.75 |

In some cases respondents stated that the business would have started/developed at a different time, *and* at a different scale. In these cases the scale and timing non-deadweight ratios were aggregated, and if the combined value equalled over 1, a non-deadweight ratio of 1.0 was

applied. The survey also provided individuals with the opportunity to identify quality additionality (i.e. the business would have started but would have been of lower quality). Quality additionality has not been included in the quantitative analysis where other additionality evidence was provided. However, where respondents only identified quality additionality, a ratio of 0.25 has been applied, to reflect that the programme has delivered a level of additionality (so a value of 0 would be unreasonable), but that this is at a modest level. Where respondents responded 'Don't know' to the questions on forms of additionality, a value of 0.5 was applied as a mid-point between full- and non-deadweight.

This analysis provided each respondent with a non-deadweight ratio. This non-deadweight ratio was then applied to the gross turnover data to estimate a net value (before accounting for displacement). For example, if Respondent X reported gross turnover of £50k, and had a non-deadweight ratio of 1, the net turnover for that respondent would be £50k. If Respondent Y reported gross turnover of £50k, and had a non-deadweight ratio of 0.62 owing to scale effects, net turnover would be £31k. The gross and net data across all relevant survey respondents were then aggregated to generate an overall deadweight ratio for the survey cohort.

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