



Executive Advisory Body

Date of Meeting	Tuesday 5 March 2019
Subject	Best Start Grant Forecasting
Agenda No.	7
Paper No.	4.3
Prepared By	Communities Analysis Division
Purpose	Note

1. Background

- 1.1. To inform the Executive Advisory Body of the approach that was taken to forecasting Best Start Grant (BSG) pregnancy and baby payments and what action will be taken to improve future forecasts.

2. Key Points

- 2.1. The forecasts for the number of BSG payments and applications were based on the best available information. Key judgements were made around the missing pieces of information, such as expected take-up rates and application success rates.
- 2.2. It is vital that we have access to appropriate data so that we can appropriately evaluate and revise our forecasts. We do not yet have sufficient information to do this for BSG.
- 2.3. Since it has not been possible to provide detailed updated forecasts, interim estimates were produced on the available information to illustrate the implications for the remaining wave 1 benefits.
- 2.4. In response to the higher than expected applications for BSG, SG analysts also produced a weekly report to help senior officials to understand the volume of claims and the implications for processing rates and backlogs.
- 2.5. Once sufficient data is available on the BSG delivery to-date the forecasts for the volume of payments and applications for BSG and all other wave 1 benefits will be produced. These will be used to inform future resource estimates.

3. Conclusion

- 3.1. Members are asked to note the contents of this paper.



GOVERNANCE CHECKLIST

Strategic Objective	Contribution
<p>Dignity, fairness and respect</p> <p>Delivering a service with dignity, fairness and respect at its core.</p>	Information on the analytical work that is required to identify the level of resources needed to provide a quality service to users.
<p>Equality and tackling poverty</p> <p>Promoting equality and tackling poverty.</p>	Information on the analytical work required to ensure that there are sufficient resources available to deliver a prompt and accurate service, to minimise delay and to contribute to poverty alleviation
<p>Efficiency and alignment</p> <p>Ensuring efficiency and aligning our activities with wider public sector for the benefit of the people we serve.</p>	Information on the analytical work required to ensure there are sufficient resources to deliver an efficient service to users.
<p>Economy, society and environment</p> <p>Contributing to our economy, society and protection of our environment.</p>	

Strategic consideration	Impact
Environment	
Governance	
Data	Requirement for access to data to inform forecasts
Finance	Forecasts of expenditure on benefits
Staff	Resource estimates for delivery
Equalities	
Estates	
Communications and Presentation	



BEST START GRANT PREGNANCY AND BABY GRANT – NOTE ON FORECASTING

1. Introduction

This note presents information on the approach that was taken to forecasting Best Start Grant Pregnancy and Baby Payments and how the forecasts will be revised as a result of the volume of applications received for BSG.

2. Forecasting the number of payments

General points about forecasting

Forecasting involves making predictions about the future based on the information available today. It is subject to uncertainty and it is widely accepted that all forecasts will be subject to a degree of error.

The degree of error will depend on what is being forecast and when, as well as the richness of data and information available. Forecasting in a steady-state is usually easier than when changes are being made to policy or delivery or when there are substantial and evolving external factors at work.

Forecasting Model

The Scottish Government developed a forecasting model for Best Start Grant in 2017 to support policy development. The general approach in this model was to estimate the number of births eligible for BSG payments, with the number of payments then estimated by applying a take-up rate to the total number eligible.

The Scottish Fiscal Commission (SFC) took on responsibility for forecasting BSG when the secondary legislation was laid in September 2018¹. Prior to the SFC publishing their forecasts, SG analysts shared their model with SFC, who used the SG approach as the basis for their model, whilst making changes to some of the assumptions.

¹ Scottish Fiscal Commission, September 2018, "Social Security – Best Start Grant (Pregnancy and Baby Grant)" <http://www.fiscalcommission.scot/publications/supplementary-costings/social-security-best-start-grant-pregnancy-and-baby-grant-september-2018/>



The following table presents a high level summary of the forecasts for Best Start Grant Pregnancy and Baby Payment in 2018-19 and 2019-20, based on the SFC model and assumptions prior to the launch of BSG. For the 2018-19 part-year figures shown in the table a simple share (based on the number of days of operation) of the full 2018-19 estimate was taken. The SFC do not forecast application success rate so the figures shown in the table are based on SG assumptions, which are explained below.

Table 1 – Forecasts for Best Start Grant Pregnancy and Baby Payments and model components

	10 Dec to end Mar 2018-19	2019-20	Source / assumption
Total births	16,900	55,900	NRS population projections
Births eligible	7,800	25,500	Model estimate (see below)
Take-up rate	46%	49%	Judgement based on available evidence (see below)
Estimated payments	3,600	12,500	
Application success rate	72%	72%	SG analysis of SSMG (see below)
Potential applications	5,000	17,400	

Key areas of uncertainty in the forecasts are explained in more detail in the following paragraphs.

Number of Births Eligible

The estimate for the number of births eligible relies on the proportion of families in receipt of qualifying benefits. Ideally it would be possible to estimate this using administrative data. However, this is not possible due to families receiving combinations of qualifying benefits and the limited availability of admin data. Therefore, the estimates used a model that is based on survey data², but this introduces restrictions associated with the sample size of the data. For example, eligibility had to be based on families with children under 5 receiving qualifying benefits. This is the youngest age of a child that gives a sufficient sample size – it's not possible to look only at families with children of qualifying age for BSG.

Take-up Rates

In their September 2018 forecast the SFC applied a smaller increase in take-up rates than what was assumed in forecasts previously prepared by Scottish Government analysts. It was estimated that the current take-up rate for SSMG, as delivered by

² The estimates of families in receipt of qualifying benefits were generated using a Scottish version DWP's Policy Simulation Model, which is a microsimulation model based on survey data from the Family Resources Survey.



DWP, was approximately 46%. The following table presents the SFC's forecasts for take-up rates.

Table 2 – SFC take-up rate assumptions

Take-up rates (%)	2019-20	2020-21	2021-22	2022-23	2023-24
BSG Pregnancy and Baby Payment	49%	51%	53%	55%	57%

Source: SFC (2018), *Scotland's Economic and Fiscal Forecasts December 2018*. <http://www.fiscalcommission.scot/publications/scotlands-economic-and-fiscal-forecasts/scotlands-economic-and-fiscal-forecasts-december-2018/>

Earlier Scottish Government policy costings and forecasts presented in the Supplementary Financial Memorandum in March 2018, assumed a take-up rate of 72.5% for each year. It reflected the intent of the Scottish Government to increase take-up, where DWP does not promote the SSMG, and was partly guided by the historic level of take-up for Healthy Start Vouchers (HSV). Since administration of the two measures is being integrated it was considered reasonable to believe that this would result in an uplift in numbers.

The SFC acknowledged that take-up rates are challenging to calculate since limited information is available on people that could receive support but are not doing so, and uncertainty about what drives benefit take-up more broadly. The SFC forecasts are based on their independent assessment of the plans for the Scottish Government to increase take-up, for example the longer application window relative to SSMG, simplified eligibility, marketing and improvements to the application process. However, they also saw a downwards effect from the transition to a new system.

The resource modelling described in Section 3 below was based on forecasts that used the SG's higher projection for the take-up rate (72.5%). This was because the resource modelling was undertaken in August 2018, prior to the SFC forecasts being available.

Monthly Volumes

Monthly estimates of the number of payments and applications were calculated based on the monthly distribution of births in Scotland from recent years. This could be considered as a "steady state" forecast.

Application Success Rate

With an estimate of the number of BSG payments, it's possible to work backwards to the number of applications by dividing the number of payments by an application success rate. The difference between the number of applications and payments is a result of unsuccessful applications. The lower the success rate the higher the overall number of applications.

Early modelling was based on using the average SSMG success rate from recent data, which was around 53%. However, further examination of the historic trend showed that, prior to the restriction of SSMG to first birth payments only, the success rate was considerably higher with an average of 72%. We inferred that the lower success rate from 2011-12 onwards was a result of unsuccessful applications



associated with second and subsequent births. Since these births would be eligible under BSG it we concluded that it would be more appropriate to apply the pre-2011-12 success rate to estimate the number of applications for BSG. We applied the 72% rate.

3. Resource Forecasting

The resource forecasts used in the modelling for recruitment for BSG were provided in August and were based on the forecasts available at that time. These forecasts were used to populate our Wave 1 benefit resource model and provide estimates of the demand required of staff in any given month. To estimate staffing levels associated with this demand, we use agreed assumptions about the time required to process claims, enabling an estimate of staff productivity to be calculated. Using this and the number of claims in any month allows an estimate of the staff required to process those claims.

The estimates are presented as a range based on high, medium and low estimates for the underlying assumptions. An update to these estimates was planned to assist with the anticipated recruitment for BSG phase II and the other Wave 1 benefits. This was expected to use the SFC forecasts, although immediately prior to their release BSG phase I went live and the volume of applications far exceeded the level of these forecasts. This update was put on hold until an understanding of the increase was available. This is discussed in Sections 4 and 5.

4. Application volumes – forecasts compared to outturn

To understand the impact of the increased volumes at go-live of BSG Phase I, we developed a report detailing the observed application volumes provided by Social Security Scotland from their MI dashboard reporting, a short-term model of how the claims were expected to change over time, and a model of the impact of these on processing rates and backlogs. This report was prepared weekly, and was to help senior officials in Social Security Scotland assess the resource required to deal with the backlog of applications, in addition to forecasted incoming applications.

[REDACTED - s.27(1) (Information intended for future publication)]

[REDACTED - s.27(1) (Information intended for future publication)]



1. Plans for forecasting the next phases of Wave 1

The forecasts for the number of payments and applications for the next phases of wave 1 (and to update the forecasts for BSG pregnancy and baby payments) will be revised to take into account the outturn data from the launch of the BSG pregnancy and baby payments. However, in order to do this we need detailed management information (MI) from BSG. This is not yet available. The data we need includes:

- Representative application success rate: The current success rate continues to fluctuate. It is desirable that the application success used for updating the modelling is stable, which might come once the backlog is cleared.
- Whether the payment is for a first birth or second / subsequent birth
- Date of birth of the child for which a payment has been made

It is vital that we have access to this data so we can appropriately evaluate and revise our forecasts.

The SFC will also be updating their forecasts for publication at the end of May 2019. If the new SFC forecasts differ from the updated SG forecasts we will have to make a decision on which forecasts to use for the resource modelling.

In the interim, prior to having access to the necessary MI data, updated estimates have been provided on the basis of considering the number of cases that might be eligible at launch and the number of applications received for BSG. While there are a number of steps in the calculation to get from the number eligible to the number of payments and then the number of applications, the number eligible is one element we can estimate in the absence of the MI.

The following table presents estimates of the potential number of cases eligible for each of the wave 1 benefits at launch. This was calculated by taking the annual number of cases eligible from each of the forecasting models and applying information on the respective application windows. For example, for BSG pregnancy and baby payments, the application window runs from the 24th week of pregnancy, up to the birth of the child and then until 6 months after the birth. This means the estimate of eligibility at launch comprises the births expected in the 16 weeks (assuming a 40 week pregnancy) from the 10 December 2018 to 25 March 2019 (to cover mothers that were 24+ weeks pregnant), plus all eligible births from 10 June 2018 to the launch date (to cover children up to 6 months old).

[REDACTED - 29(1)(a) (Formulation or development of government policy)]

[REDACTED - s.27(1) (Information intended for future publication)] This information was used in a recent Ministerial submission to understand the resource increase



required at proposed go-live dates for the remaining Wave 1 benefits. A profile of the resource over time for the Wave 1 benefits is shown in Chart 3.

[REDACTED - 29(1)(a) (Formulation or development of government policy)]

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