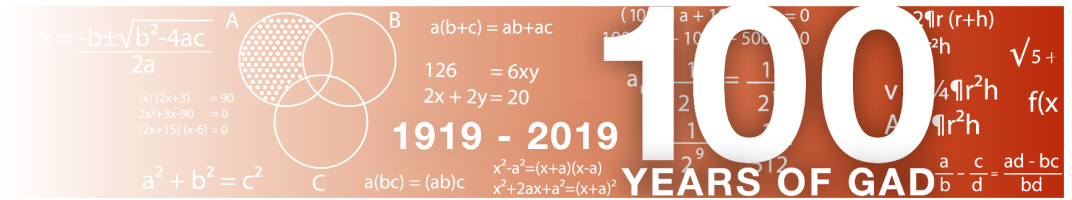




Government
Actuary's
Department



Department for Education Risk Protection Arrangement

Estimated Provisions as at 31st March 2020

Summary of Key Results

7 August 2020

Matt Kirkpatrick



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Executive summary

1 Executive summary

- 1.1 This report has been prepared by the Government Actuary's Department ('GAD') at the request of the Department for Education ('DfE').
- 1.2 The purpose of this report is to provide DfE with a summary for publication of the key results of the work undertaken by GAD in order to estimate claim provisions for the risk protection arrangement ('RPA') as at 31 March 2020. This work was undertaken between March 2020 and July 2020. This report is based on data and the policy environment as at 31 March 2020 and makes no allowance for changes since this time. We draw your attention to the limitations and reliance restrictions described below in paragraphs 1.51 to 1.53.
- 1.3 The scope of this review includes estimates of provisions for:
- > The academic years 2014/15 to 2019/20
 - > The financial years 2014-15 to 2019-20
 - > Each future academic year from 2019/20 up to and including 2027/28
 - > Each future financial year from 2020-21 up to and including 2027-28
- 1.4 Where a future year or future period is referred to, this is used to mean a year or time period that has yet to start as at 31 March 2020.

Background

- 1.5 The RPA is an alternative to insurance where losses that arise are covered by UK government funds. DfE are overseeing the arrangement, with some areas supported by external advisors.
- 1.6 The arrangement has been operational since 1 September 2014. For those that participated in the arrangement during the 2014/15 and 2015/16 academic years, £25 per pupil was deducted at source from the academy's general annual grant ('GAG'). For those that participated in the arrangement during the 2016/17, 2017/18 and 2018/19 academic years, £20 per pupil was deducted. For those that participated in the arrangement during the 2019/20 academic year, £18 per pupil was deducted.
- 1.7 The RPA covers property damage and business interruption ('PDBI'), public liability ('PL'), employers' liability ('EL') and travel ('Travel'). The main limits for the RPA are the reinstatement value of the property, £10m per claim for business interruption and £2,000 per person for baggage claims relating to UK or overseas travel. There is no limit for liability claims.
- 1.8 GAD's previous review of the RPA outstanding claims provisions was as at 31 August 2019. In this report we provide comparisons to the GAD provision estimates as at 31 August 2019, referring to these as the 'August 2019 review estimates'. Our estimates as at 31 March 2020 are referred to as the 'current estimates'.
- 1.9 The provisional estimates were analysed split by:
- > Type of academy: Primary and Secondary & Other
 - > Main reserving class: PDBI, PL, EL and Travel
 - > Peril: For example the PDBI class includes the perils Fire, Flood and Theft

- 1.10 All estimates are on an undiscounted basis, which means that the amounts stated are the amounts expected to be paid out at the time they are due, without taking into account the time value of money.
- 1.11 The RPA had been operational for 67 months as at 31 March 2020. The number of academies within the RPA has been increasing since it first became operational, with 6,297 academies and 2.8 million pupils covered by the RPA as at 31 March 2020.
- 1.12 Since 1 April 2020 the RPA has provided cover to local authority maintained schools ('LAMS') in addition to academies. Appropriate assumptions of future joining rates for LAMS have been determined through consultations with the RPA. All estimates beyond 1 April 2020 are based on the RPA membership including both LAMS and academies.
- 1.13 There are many uncertainties associated with the estimation of provisions such as those documented within this report. As a result, the claims experience may differ materially from the estimates made. Our report represents our view of the estimated ultimate claims and does not reduce the inherent uncertainty in the outcome of future events.

Assessing the impact of COVID-19

- 1.14 This assessment of the RPA's claims provisions has taken into account the effects of COVID-19. There are two separate exercises underlying our allowance for this event:
- > The greatest impact has been in the Travel cover provided by the RPA where a number of domestic and overseas trips have been cancelled. Due to the size and nature of these claims, DfE developed a model at the outset of the pandemic which tracks reported claims and estimates future costs. In order to make best use of the work that has already been undertaken in this area, GAD has carried out an independent review of the model and concluded that DfE's estimate of ultimate claims was appropriate to use within this provisioning exercise.
 - > The remaining elements of cover (PDBI, PL, and EL) have also been impacted by COVID-19, but to a lesser extent. GAD has made adjustments to the assumed frequency of claims for these elements of the RPA cover, with the size of the adjustments based on the experience which has emerged since the start of the pandemic, combined with a qualitative assessment of the impact based on the characteristics of each aspect of cover.
- 1.15 The full impact of COVID-19 is highly uncertain and there may be material changes to DfE and GAD's view on the extent of the losses as further data emerges.

Academic year 2014/15 results

1.16 The chart below shows the expectation of ultimate claims for the 2014/15 academic year, as at 31 March 2020 and as at 31 August 2019 which is the date of our previous review. The 2014/15 academic year covers the 12-month period from 1 September 2014 to 31 August 2015.

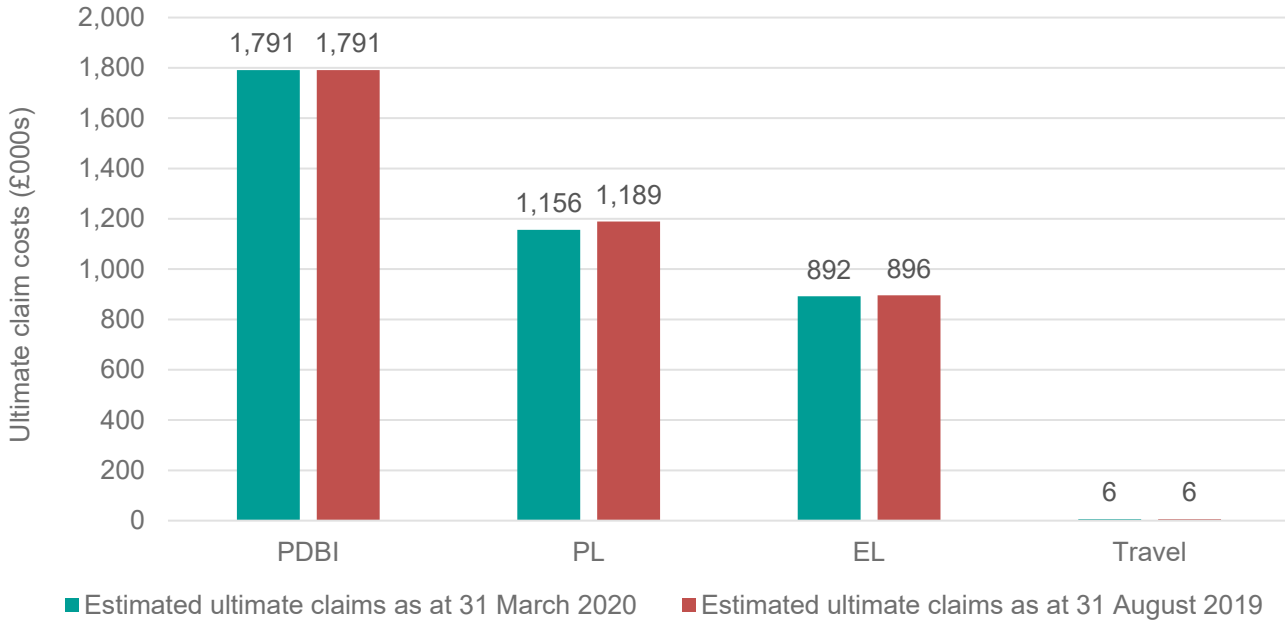


Figure 1: Summary of GAD academic year 2014/15 ultimate claims estimates by class (£000s)

- 1.17 Our current estimate of ultimate claims for the 2014/15 academic year is £3.8m. This is largely unchanged since the August 2019 review estimate.
- 1.18 These estimates exclude all claim expenses. For all academic years we have maintained the methodology from our previous review which is to give more weight to the expense experience which has already emerged. To do this, we assumed that the expense ratio for reported claims will not be subject to any further changes, whilst the expense ratio for future claims is assumed to be in line with a benchmark assumption based on overall RPA experience.

Academic year 2015/16 results

1.19 The chart below shows the expectation of ultimate claims for the 2015/16 academic year, as at 31 March 2020 and as at 31 August 2019. The 2015/16 academic year covers the 12-month period from 1 September 2015 to 31 August 2016.

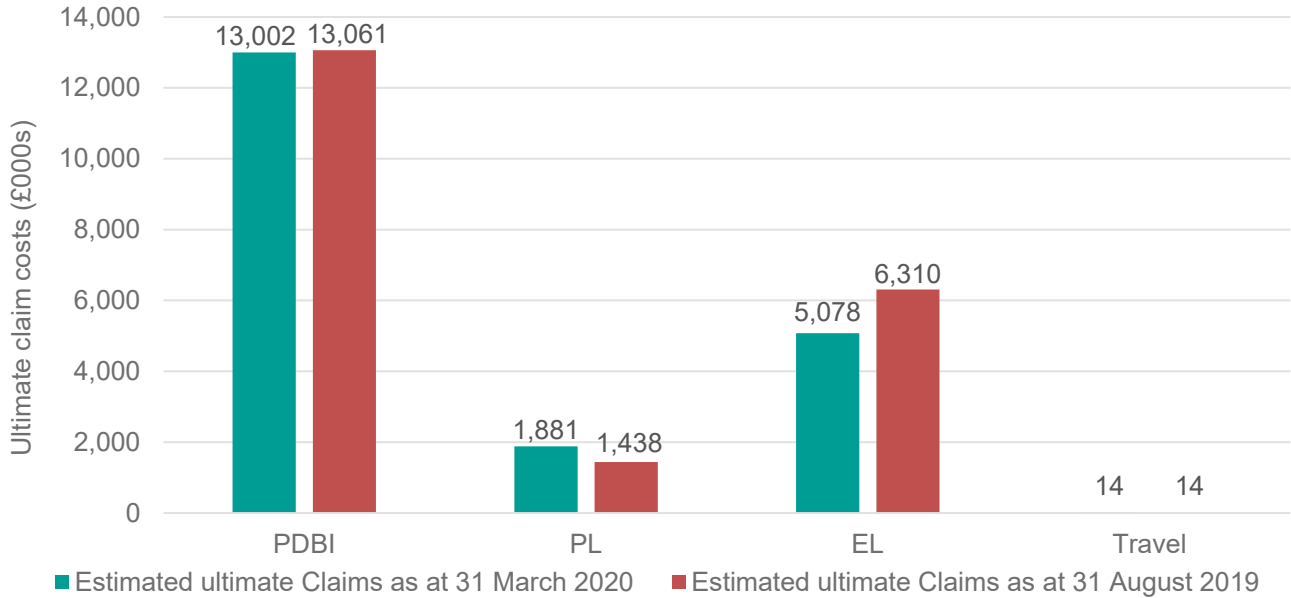


Figure 2: Summary of GAD academic year 2015/16 ultimate claims estimates by class (£000s)

1.20 Our current ultimate claims estimate for the 2015/16 academic year is £20.0m. This is £0.8m lower than the August 2019 review estimate.

1.21 This improvement is largely driven by a significant saving on a particular large loss in EL Injury.

Academic year 2016/17 results

1.22 The chart below shows the expectation of ultimate claims for the 2016/17 academic year, as at 31 March 2020 and as at 31 August 2019. The 2016/17 academic year covers the 12-month period from 1 September 2016 to 31 August 2017.

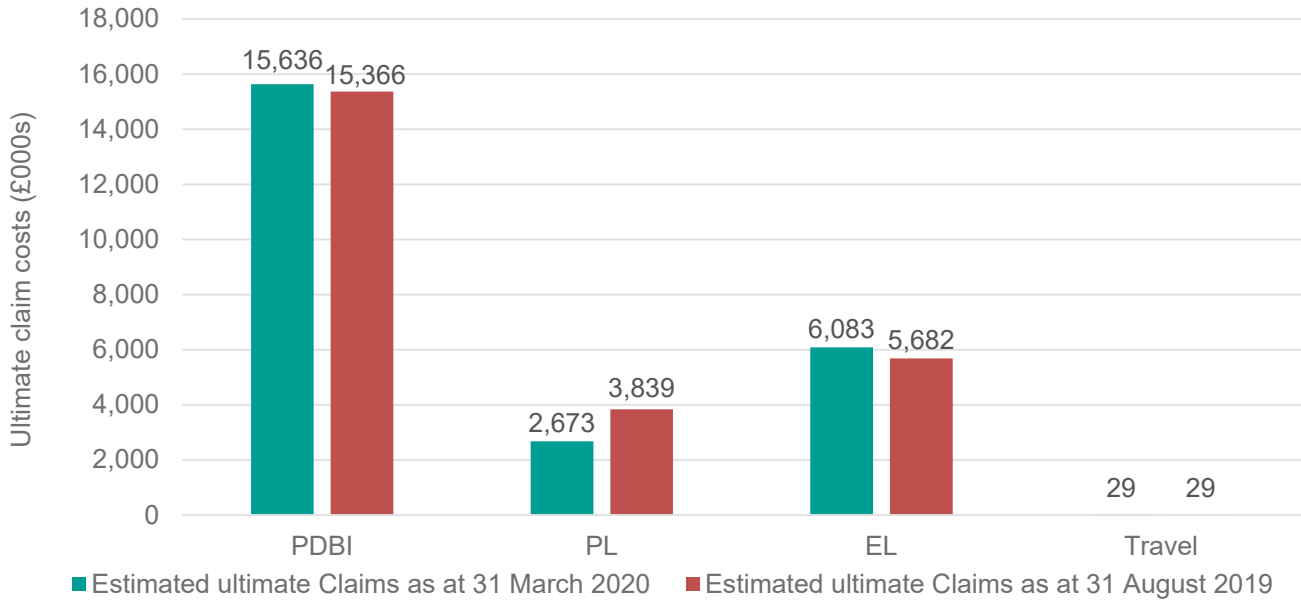


Figure 3: Summary of GAD academic year 2016/17 ultimate claims estimates by class (£000s)

- 1.23 Our current ultimate claims estimate for the 2016/17 academic year is £24.4m. This is £0.5m lower than the August 2019 review estimate.
- 1.24 This decrease is primarily driven by the PL Injury class where attritional claims experience has been better than expected, including a £1.0m saving on a known claim.
- 1.25 There are offsetting movements in the EL Injury and PDBI General Damage & Other classes as a result of deteriorations on a number of known large losses.

Academic year 2017/18 results

1.26 The chart below shows the expectation of ultimate claims for the 2017/18 academic year, as at 31 March 2020 and as at 31 August 2019. The 2017/18 academic year covers the 12-month period from 1 September 2017 to 31 August 2018.

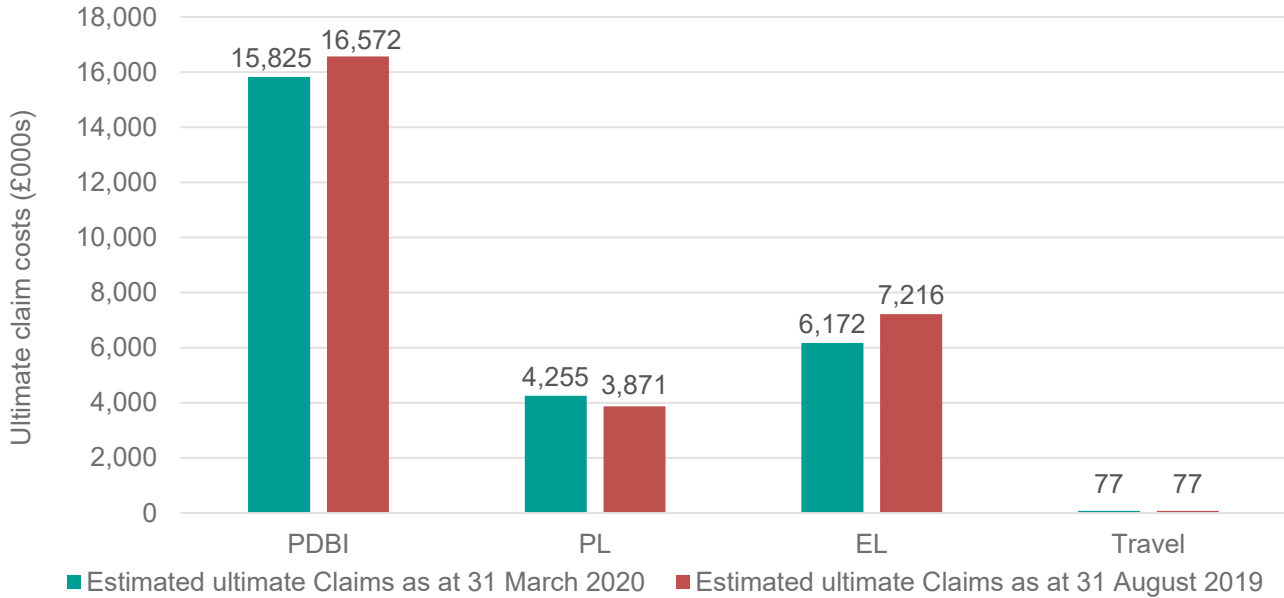


Figure 4: Summary of GAD academic year 2017/18 ultimate claims estimates by class (£000s)

- 1.27 Our current ultimate claims estimate for the 2017/18 academic year is £26.3m. This is £1.4m lower than the August 2019 review estimate.
- 1.28 This improvement is driven by the EL and PDBI classes. There has been a lack of large losses across the EL classes supplemented by good experience since the previous review, resulting in a decrease in expected claims from this class. There have also been improvements across all PDBI classes, in particular Flood and General Damage & Other, where there have been savings across a large number of claims.

Academic year 2018/19 results

1.29 The chart below shows the expectation of ultimate claims for the 2018/19 academic year, as at 31 March 2020 and as at 31 August 2019. The 2018/19 academic year covers the 12-month period from 1 September 2018 to 31 August 2019.

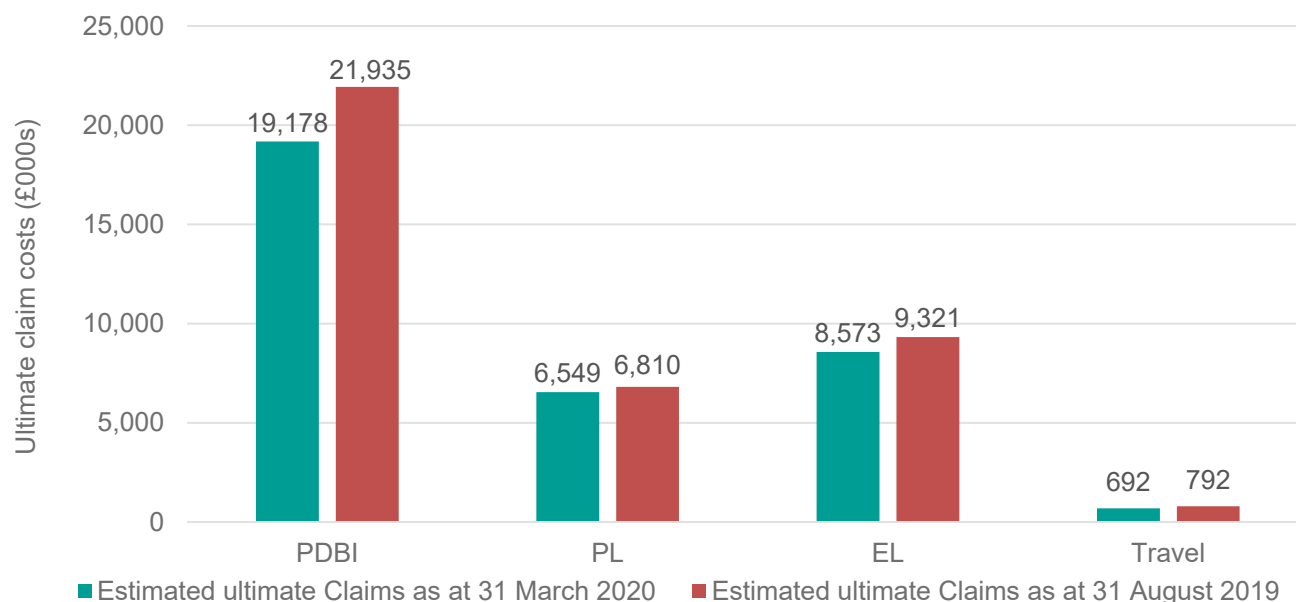


Figure 5: Summary of GAD academic year 2018/19 ultimate claims estimates by class (£000s)

1.30 Our current ultimate claims estimate for the 2018/19 academic year is £35.0m. This is £3.9m lower than the August 2019 review estimate.

1.31 This saving is driven by a significant improvement in the PDBI classes, in particular Fire and Flood. In the case of PDBI Flood, there has been a re-allocation of flood claims by the claims handler to natural-caused events resulting in a much lower frequency of claims. There has also been an absence of new large losses in the PDBI Fire class.

1.32 These savings mask a deterioration in the PDBI General Damage & Other class, where there has been high claims severity amongst the new claims that have been reported, alongside the movement of claims from PDBI Flood to this class.

1.33 There have also been savings across the other classes.

Academic year 2019/20 results

1.35 The chart below shows the expectation of ultimate claims for the 2019/20 academic year, as at 31 March 2020 and as at 31 August 2019. The 2019/20 academic year covers the 12-month period from 1 September 2018 to 31 August 2019.

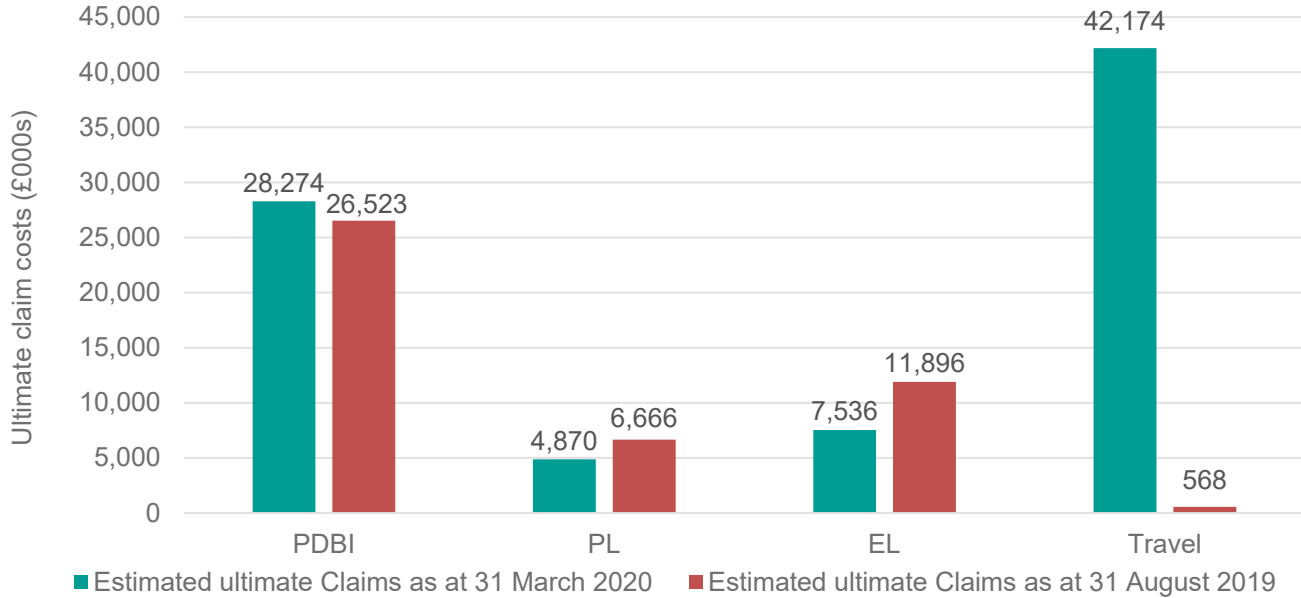


Figure 6: Summary of GAD academic year 2019/20 ultimate claims estimates by class (£000s)

- 1.36 Our current ultimate claims estimate for the 2019/20 academic year is £82.9m. This is £37.2m higher than the August 2019 review estimate.
- 1.37 This deterioration is primarily driven by poor experience in the Travel class as a result of COVID-19. A secondary cause of this deterioration is the Travel Overseas class, where we have assumed the average claims severity will be higher.
- 1.38 There has also been an increase in the PDBI classes, driven by large losses in PDBI Flood and PDBI Storm since the previous review. This is slightly offset by good experience during this period in PDBI Fire.
- 1.39 The liability classes both see an improvement, where we have assumed a reduction in claim frequency due to school closures for the remainder of the academic year.

Future academic year results

- 1.41 In the current review, we have extended the time horizon to project results from academic year 2024/25 to academic year 2027/28.
- 1.42 The following chart shows our current estimate of ultimate claims for the 2020/21 to 2027/28 academic years alongside the corresponding estimates from our August 2019 review. Due to the extended time horizon in the current review, the ultimate claims estimates from the August review are zero for academic years 2025/26 onwards.

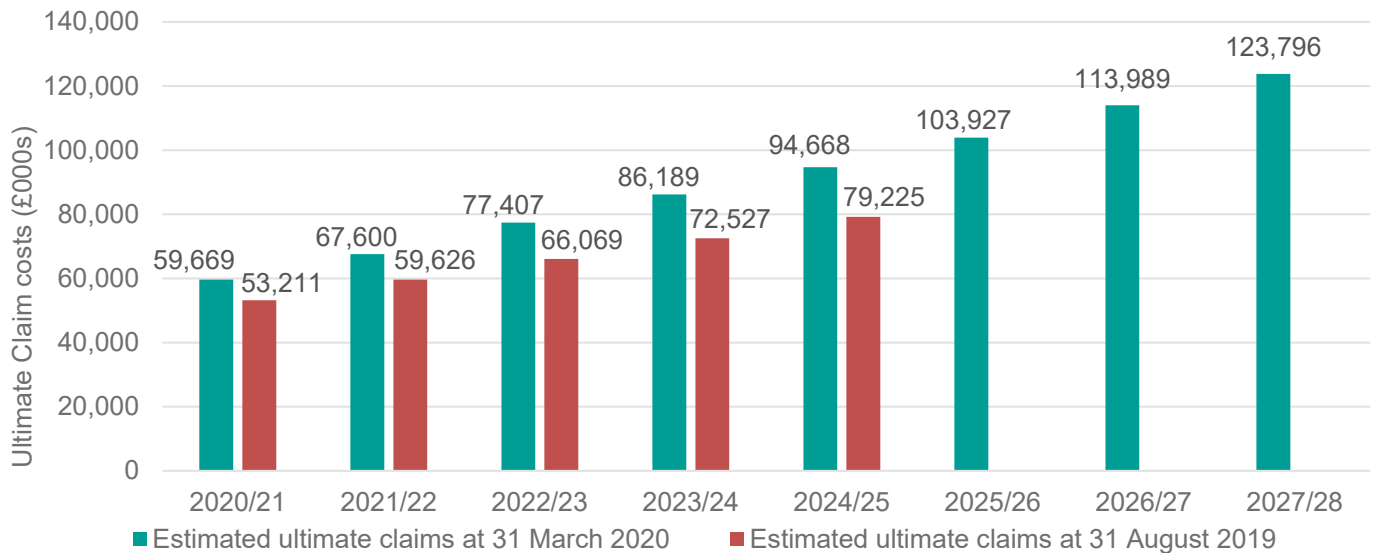


Figure 7: Summary of GAD future academic year ultimate claims estimates (£000s)

- 1.43 Our current ultimate claims estimates for these future academic years are approximately 12.1% to 19.5% higher than the August 2019 review estimates. This is primarily driven by the extension of the RPA to include LAMS from 1 April 2020.
- 1.44 Further details on the academic years 2020/21 to 2027/28 results can be found in paragraphs 2.38 to 2.42.

Terms of reference

- 1.45 The actuarial services provided to DfE by GAD in respect of the RPA are covered by the 'Letter of Engagement between Department for Education and the Government Actuary's Department', dated 29 November 2019. This report is a summary of the estimates of claim provisions as at 31 March 2020 from advice provided to DfE by GAD between March 2020 and June 2020.

Distribution and limitations

- 1.46 Other than DfE, no person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein, and GAD has no liability to any person or third party for any act or omission taken, either in whole or part, on the basis of this report.
- 1.47 The data provided by DfE was used as it was received. GAD has not independently verified the data and we have relied on the general completeness and accuracy of the information supplied. Where possible, we have performed consistency and reasonableness checks using data from our previous review as at August 2019.
- 1.48 This report must be considered in its entirety, as individual sections, if considered in isolation, may be misleading, and conclusions reached by review of some sections on their own may be incorrect.

2 Analysis

Overview

- 2.1 This section describes the data, methodology and assumptions which we have used to perform our independent analysis of the RPA's outstanding claims provisions as at 31 March 2020.
- 2.2 There is inherent uncertainty in an analysis of this type and we highlight the key uncertainties throughout this report. Our analysis does not remove this uncertainty but will provide DfE with more insight into the assumptions used and judgments made.

Data

- 2.3 Our analysis is supported by the following information and data:
- > Claims data tables as at month ends from 30 September 2014 to 31 March 2020.
 - > Additional claims data table as at 30 April 2020. This was required to assess any material movements in individual claims.
 - > Average pupil numbers taken from a DfE study on schools, pupils and their characteristics dated January 2017.
 - > Indicative estimates of future academy and local authority school numbers.
 - > RPA membership data.
- 2.4 We have not verified the accuracy of the data independently. We have compared the academy projections and RPA membership data to that previously received for consistency and reasonableness.
- 2.5 Please see Appendix A for more detail on the data provided.

Overview of projection methodology

- 2.6 To project the expected losses, we first estimated the exposure, by estimating how many pupils will be covered by the RPA at each financial and academic year within the scope of our review. We then used this exposure estimate to inform our claims estimates, using various methods as detailed below, and selected a method or an average of methods for each class.

Projection of exposure

Overview

- 2.7 To estimate the number of pupils within the RPA for future risk periods we first estimate the number of academies and LAMS within the RPA and then make further assumptions about the average number of pupils within each institution. Whilst the addition of LAMS exposure is a new part of our process, the methodology is essentially unchanged since our previous review, with only the underlying assumptions having been updated to take into account the most recent experience.

Projection of academies within the RPA

- 2.8 Using indicative estimates provided to us of future academy numbers for the purpose of this provisioning exercise, we derived assumptions of the number of new and existing academies joining the RPA per month. These assumptions, which are listed below, are based on the RPA's actual experience:
- > 61% of new academies join the RPA each month;
 - > On average approximately 1.0% of existing academies that have not yet joined the RPA, join each month; and
 - > On average approximately 0.12% of academies that have joined the RPA will opt out for an alternative arrangement.
- 2.9 For the second and third assumptions above, we take into account seasonal effects such as uptake being higher at the start of the academic year.
- 2.10 We also assume that the new academies joining the RPA will mirror the assumed school type split which is used within the DfE academy population projections.

Comparison to August 2019 review estimates – academies forecast

- 2.11 The actual number of academies that joined the RPA over the 7 months between August 2019 and March 2020 has been in line with our expectations.

Projection of local authority maintained schools within the RPA

- 2.12 In addition to the indicative estimates provided to us on LAMS numbers within the next year, we have derived several key assumptions to determine the number of local authority schools joining the RPA in the future. These assumptions, which are listed below, are based on consultations with the RPA and reflect the expected joining rates:
- > A number of Local Authorities ('LAs') are approached by the RPA each year;
 - > A proportion of the targeted LAs are assumed to join the RPA;
 - > A proportion of the schools within these joining LAs join the RPA;
 - > A number of LAMS convert to academies and no new LAMS are created, reducing the LAMS population that are available to join the RPA each year.
- 2.13 Local authority maintained schools operate on a financial year basis and so we assume uptake will be higher at the start of the financial year.
- 2.14 We also assume that the local authority schools joining the RPA will mirror the assumed school type split within the local authority population.

Projection of academy pupils within the RPA

- 2.15 We multiply the total estimated number of academies within the RPA by the assumed average number of pupils for each school type, to get an expected number of pupils for each school type for each future month until the end of the 2027/28 academic year.
- 2.16 For academies that participated in the RPA between 2014/15 and 2019/20 the average pupil numbers for primary academies and secondary academies are lower than the averages within the total UK school population.
- 2.17 This is driven by a significant proportion of academies within the RPA being new free schools, studio schools and university technical colleges. These schools currently on average have lower pupil numbers, as often they start with fewer classes and expand each academic year. This trend has already been observed during the first five academic years that the RPA has been in existence. Over time, we expect that as these academies grow, and more academies join the RPA, the average number of pupils within the RPA will increase to be more in line with the general academy population.

Comparison to August 2019 review estimates – pupil number forecast

- 2.18 The actual number of pupils covered by the RPA over the 7 months between August 2019 and March 2020 has also been in line with our expectations.

Projection of local authority pupils within the RPA

- 2.19 We multiply the total estimated number of LAMS within the RPA by the assumed average number of pupils for each school type, to get an expected number of pupils for each school type for each future month until the end of the 2027/28 academic year.
- 2.20 For local authority schools that participate in the RPA in academic year 2019/20 the average pupil numbers for primary schools and secondary schools are based on the LAMS membership over this period.
- 2.21 The average pupil numbers for primary schools and secondary schools are lower in future academic years as they are weighted by school type using the LAMS population data provided by Edubase as at April 2020.

Comparison to August 2019 review estimates – pupil years of exposure

- 2.22 The pupil numbers for LAMS and academies are combined to determine the overall pupil numbers for the RPA.
- 2.23 We then convert these pupil numbers into pupil years of exposure for each academic year by cumulating the time on risk for each school within each year. For example, a school that joins the RPA at the end of July will be on risk for that academic year for one month, so will contribute one twelfth of a year of exposure.
- 2.24 The following chart shows the expected ultimate pupil exposure based on data as at 31 March 2020 alongside our 31 August 2019 review estimate of ultimate pupil exposure, for the years where coverage has commenced (2014/15 through to 2019/20).

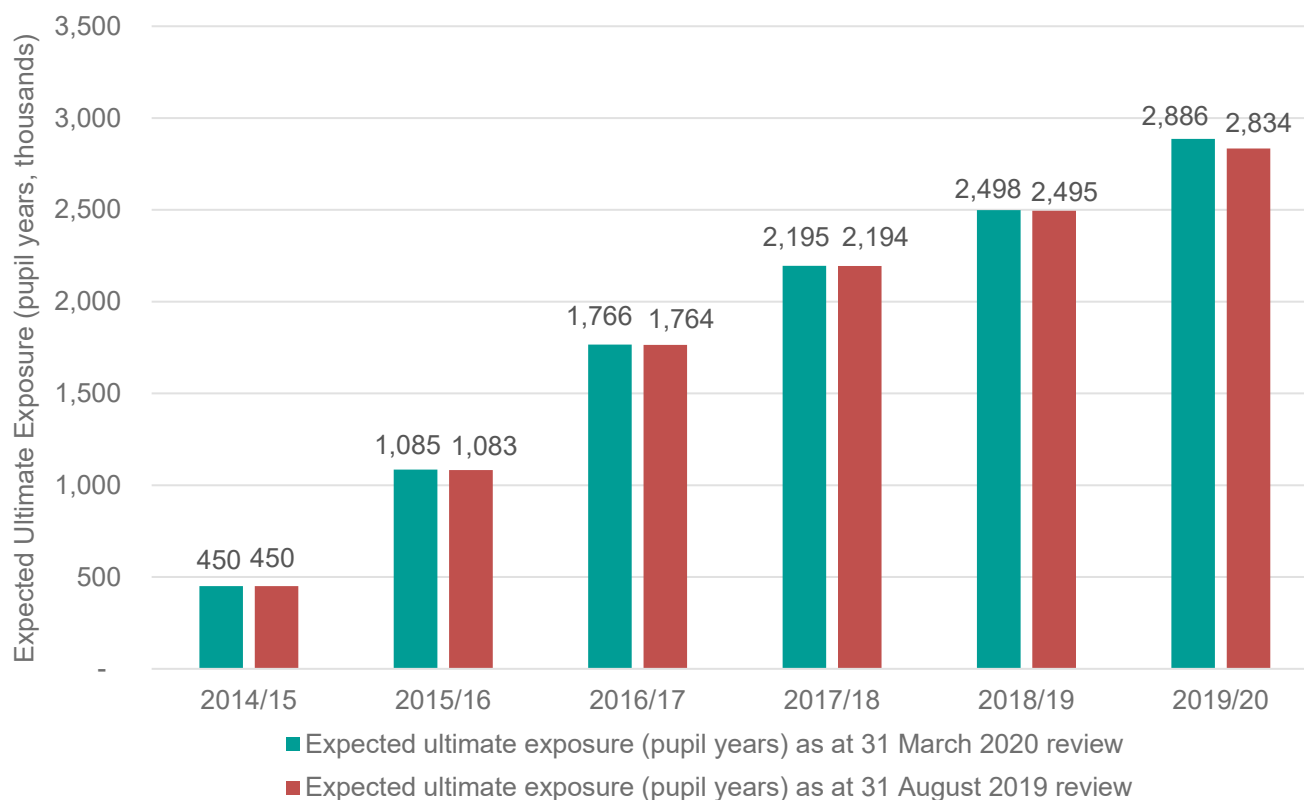


Figure 8: Summary of GAD ultimate exposure in pupil years (pupil years shown in 1,000s)

2.25 This chart shows that our exposure estimates are largely unchanged for all academic years up to 2018/19. The increase in academic year 2019/20 is driven by the inclusion of LAMS in this review.

Projection of claims

2.26 For each claim type, we make an estimate of the ultimate claims, i.e. the total final amount that will be paid for claims originating in a given academic or financial year. As there are often delays before a claim is reported or settled, claims are often paid in the years subsequent to the one in which the claim event occurred.

2.27 To estimate the ultimate claims we need to estimate future claims for incidents that occur during the academic year or financial year. The future claims include:

- > Claims that have happened but have yet to be reported to the RPA's claims administrators (known as 'incurred but not reported' or IBNR). IBNR could occur, for example, if a child has an accident but the parent delays reporting this to the school (perhaps because they didn't realise that they would have grounds for a claim).
- > Claims that have happened but not enough has been reported, which are known as 'incurred but not enough reported' or IBNER. IBNER could occur, for example, if a fire claim is reported and a standard initial loss estimate is recorded against the claim but then, following a more detailed assessment of the fire damage by a loss adjustor in the future, the expected cost of the claim is increased.
- > Claims that will arise from unexpired periods of coverage. These types of claims are only applicable when GAD carries out a provision review as at 31 March when there are still five months of future coverage for the latest academic year.

2.28 Ultimate claims include all of the above along with the current value of claims that have been reported as at 31 March 2020 (known as the reported claims).

2.29 One of the techniques we have used to estimate ultimate claims is to project forward each academic year using the patterns shown in figures 9 and 10 below. These show the expected reported claim amounts and reported claim numbers as a proportion of their ultimate position for an average academic year, during each year following the initial academic year period. Note that we expect longer delays until claims are paid than for claims to be reported.

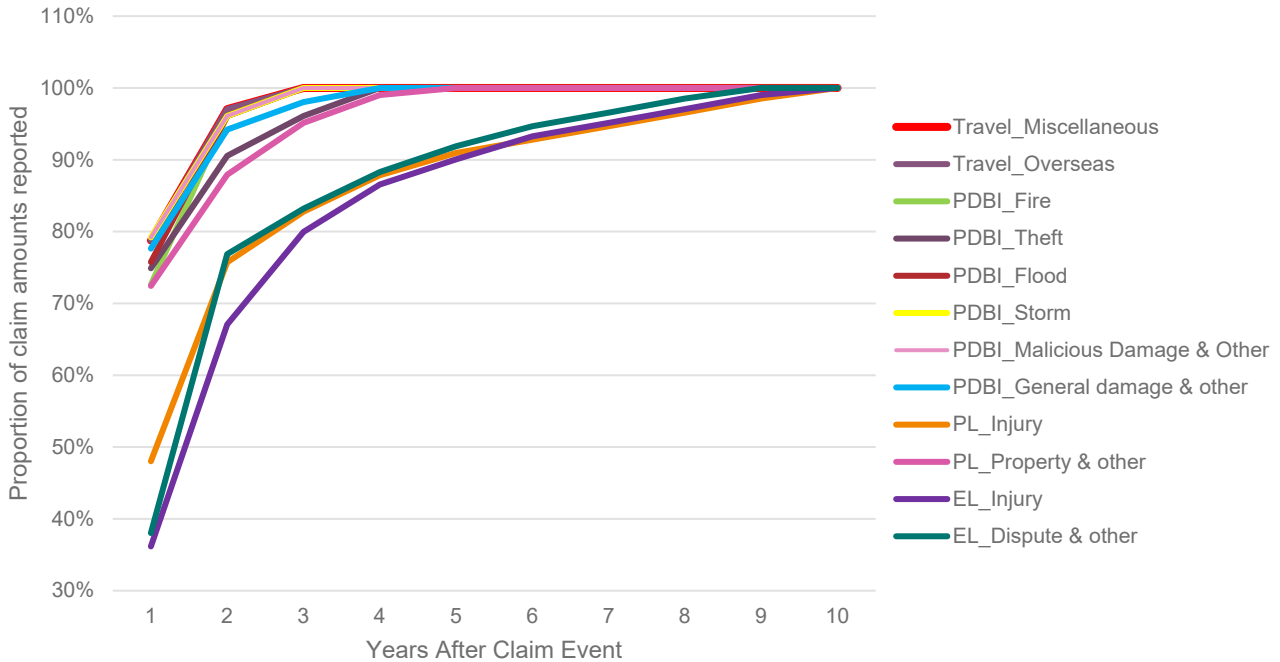


Figure 9: Claim amounts reported cumulative development patterns for each class

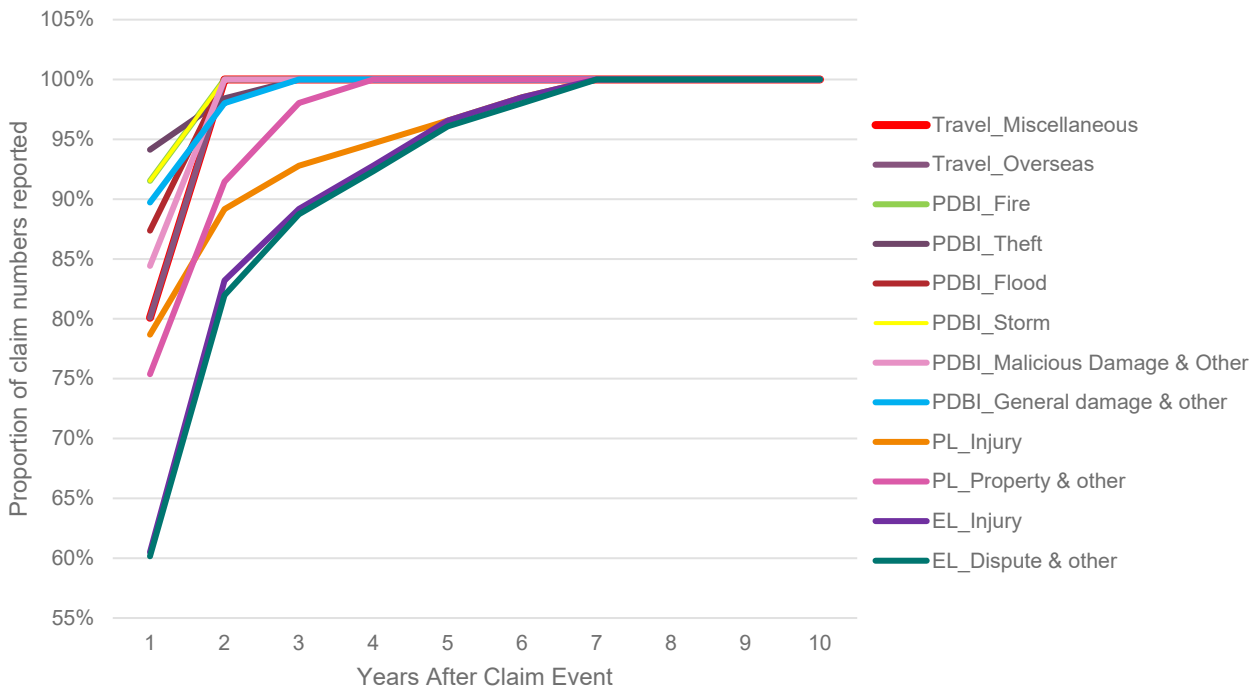


Figure 10: Claim numbers reported cumulative development patterns for each class

2.30 The Travel class has been divided into 2 sub-classes as part of the current review: Travel Miscellaneous and Travel Overseas. We expect that claims from both Travel classes will emerge the fastest (two years for claim numbers to be fully reported and three years for claim amounts), with the least uncertainty in their value. The PDBI class is also expected to develop relatively quickly (three years for claim numbers to be fully reported, four years for claim amounts).

- 2.31 The liability classes (EL and PL) take longer to emerge as there is a significant component of personal injury claims in these (at least seven years for claim numbers to be fully reported and ten years for claim amounts).
- 2.32 Adjustments have been made to take account of the rapid growth in the number of pupils within the RPA during the first two academic years (2014/15 and 2015/16 only).
- 2.33 We considered the results from several methods when selecting the ultimate number of claims and the ultimate claim amount for each class.
- 2.34 We also project the expenses associated with the claims. These expenses are claims expenses related to individual claims such as claims handling and loss adjustor fees. Any expense figures within this report do not include any further expenses that DfE incur in the operation of the RPA, such as staff and consultancy costs.
- 2.35 The results of our provisioning exercise are presented in section 1 of this document.

Projection of claims for future academic years 2020/21 to 2027/28

2.36 The following chart shows our current ultimate claims estimate for the 2020/21 to 2027/28 academic years, alongside the corresponding estimates from our August 2019 review. Due to the extended time horizon in the current review, the ultimate claims estimates from the August review are zero for academic years 2025/26 onwards. These academic years cover the 12 month periods from 1 September 2020 to 31 August 2028. All figures exclude claim expenses.

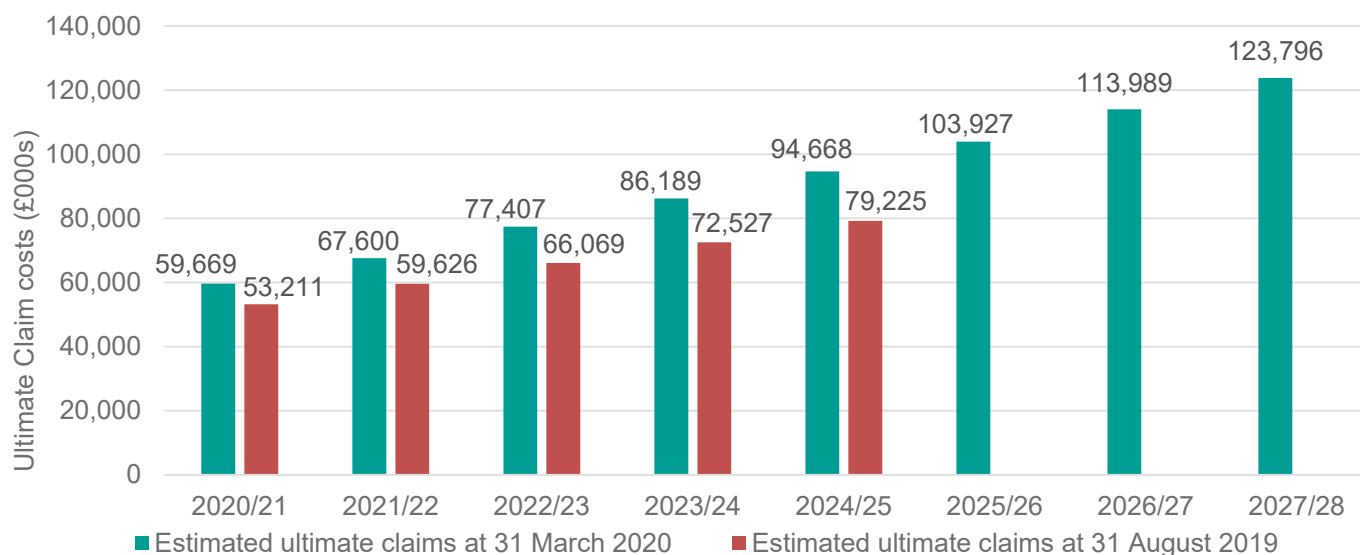


Figure 11: Summary of GAD future academic year (2020/21 to 2027/28) ultimate claim estimates (£000s)

- 2.37 Our current ultimate claim estimates for the future academic years (2020/21 to 2024/25) are approximately 12% to 20% higher than the August 2019 review estimates. These increases are driven by the additional future exposure created by the inclusion of LAMS during this review (meaning that the number of pupils covered by the RPA has significantly increased).
- 2.38 Our view on future claim costs independent of this exposure increase is unchanged. This is based on estimates of claim frequency and average claim severity for each of the different types of cover offered by the RPA. As in the August 2019 review, we have wholly relied upon RPA experience for these assumptions in this review. The frequency assumptions are the same for all future academic years, whilst the severity assumptions are increased to allow for inflation.
- 2.39 During this review we have increased our estimate of severity and frequency for PL Property & Other claims and PDBI General Damage & Other claims. For PDBI Flood claims, our estimate of frequency has improved whilst the severity assumption has worsened due to the movement of non-natural floods to the PDBI General Damage & Other class. These changes largely offset one another.

Projection of claims for financial years 2014-15 to 2027-28

2.40 Our estimates of the ultimate loss for each financial year are calculated by reallocating the academic year results. The reallocation methodology is as follows:

- > The claims data provided by Gallagher Bassett and TopMark contains information on each individual claim. This level of granularity allows us to directly calculate the paid and outstanding claims on a financial year basis without having to make any additional assumptions.
- > IBNR and IBNER claims have already been estimated as part of our academic year projections. In order to allocate these to a financial year basis, our default assumption is that IBNR and IBNER claims are equally likely to emerge from any earned amount of exposure within an academic year.
- > Estimated claims for unexpired periods of risk have also already been calculated on an academic year basis. We allocate these to a financial year basis by assuming they are equally likely to emerge from any unearned period of exposure.

2.41 For each reserving class, we consider whether we are aware of any reasons why our default methodology would not be appropriate. For example, an adjustment would be considered for any classes where there is strong evidence that claims occur during specific seasons rather than uniformly throughout the year.

2.42 The figure below summarises the estimated ultimate claims for financial years 2014-15 to 2027-28.

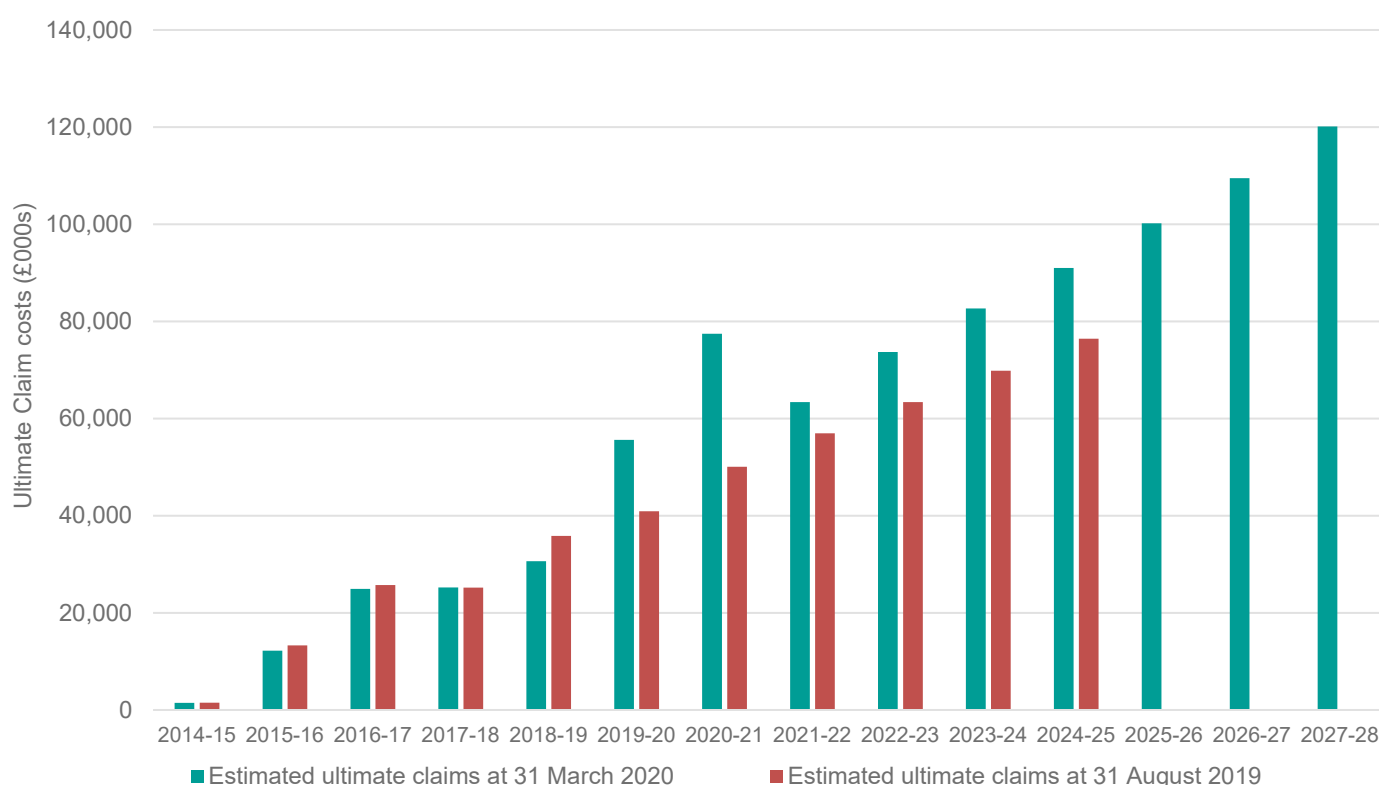


Figure 12: Financial year estimates as at March 2020 and August 2019 (£000s)

2.43 Our estimate of ultimate claims for the 2014-15 year is largely unchanged.

2.44 Our estimate of ultimate claims for the 2015-16 year has improved from £13.3m to £12.2m. This is a result of the EL Injury class where a known claim has improved by £1.1m.

- 2.45 Our estimate of ultimate claims for the 2016-17 year has improved from £25.7m to £24.9. This is mainly driven by the liability classes where there has been improvements on a number of known claims. There have also been small improvements across the PDBI class.
- 2.46 The 2017-18 year is unchanged.
- 2.47 The 2018-19 year has improved from £35.8m to £30.6m. This is due to a lack of large losses over the period with improvements on known claims in the PDBI Fire and General Damage & Other classes.
- 2.48 The 2019-20 year has significantly deteriorated from £40.9m to £55.6m. This is mainly driven by poor experience in the PDBI classes, particularly Storm, Flood and General Damage & Other, and a significant increase in the frequency of Travel claims due to COVID-19.
- 2.49 The subsequent years (2020-21 onwards) are all future financial years that have yet to commence and have each seen increases in ultimate claims when expressed as sterling amounts. This is driven by increases in RPA exposure due to the addition of LAMS, the changes to our future view of frequency and severity which have previously been described and the allowance for COVID-19 in financial year 2020-21.

3 Further considerations

- 3.1 This section outlines further considerations that DfE should bear in mind when examining the results in this report.
- 3.2 The insurance market would offer different premium rates to each academy based on their risk profile and claims history. The RPA will therefore vary in the amount of value that each academy receives from it, which may make it more likely that those academies currently paying high insurance premiums will join, which is a form of selection against the RPA (known as anti-selection). This would create a risk profile that may not be in line with the claims data.
- 3.3 The actuarial analysis undertaken for the arrangement does not include a specific consideration of latent claims. These are claims of a type that was not anticipated at the time that cover was provided, though these claims would be funded by DfE if they were to arise in the future. This represents a source of uncertainty in the level of claims to the arrangement.
- 3.4 There is no explicit allowance for Periodical Payment Orders, i.e. claims that, rather than settling as a lump sum amount, require regular payments to be made in order to compensate the claimant. Any Periodical Payment Orders would be funded from DfE funds if they were to arise.
- 3.5 In DfE's accounts, provisions, contingent assets and contingent liabilities are considered in accordance with International Accounting Standard 37 (IAS 37). Under IAS 37 future payments for claims made to the RPA will require a provision to be held by DfE. DfE utilise this provision as claims are reported and allocate budget at this point. DfE will therefore have to ensure that funds are available when needed.
- 3.6 The growing number of academies creates further uncertainty as the historical data may not be representative of the future experience.
- 3.7 In preparing this advice, we have considered the extent to which our analysis may be affected by material risks arising from the impact of the COVID-19 pandemic. Any adjustments and additional uncertainty to reflect such risks are discussed in sections 1 and 2 of the report. The situation around COVID-19 continues to rapidly evolve and the full impact of the virus will not be known until further evidence has been established. Once the implications of the COVID-19 pandemic become more apparent, it is recommended that the advice is reviewed to check it is still appropriate in light of the emerging information.

Appendix A: Data

Exposure

- A.1 We were provided with the following data from DfE concerning the exposure of the RPA:
- > Actual number of academies and pupils in the RPA as at 31 March 2020, split by type of academy (Primary, Secondary, All Through and Special);
 - > Academies and LAMS where there is information to suggest they may join the RPA in the future, alongside an expected opt-in date;
 - > Projected number of academies.
 - > Projected number of LAMS converting to academies.

Claims data

- A.2 We were provided with the following data, as at the month ends from inception of the RPA in September 2014 to 31 March 2020 inclusive for each claim that had been reported by that date:
- > Paid loss amount (excluding claims expenses)
 - > Outstanding loss amount (which represents the Gallagher Bassett or TopMark loss estimate (excluding claims expenses) that has yet to be paid)
 - > Paid claim expense amount
 - > Outstanding claim expense amount (which represents the Gallagher Bassett or TopMark expense estimate that has yet to be paid)
 - > Accident date
 - > Date first reported
 - > Date closed (if the claim has closed)
- A.3 We understand the claims expense amounts to include claims handling and loss adjustor fees. Any expense figures within this report do not include any further expenses that DfE incur in the operation of the RPA, such as staff and consultancy costs.
- A.4 A nil claim is defined as a claim that has closed, but where the paid loss and outstanding loss are zero. These claims are excluded from the claim number triangle only from the point at which they close as a nil claim.

Data detail

- A.5 We have grouped the data by each major class of business and peril separately. This creates 12 different reserving classes:
- > Property Damage and Business Interruption
 - Fire
 - Flood
 - Theft
 - Storm
 - Malicious Damage
 - General Damage & Other
 - > Public Liability
 - Injury
 - Property & Other
 - > Employers' Liability
 - Injury
 - Dispute & Other
 - > Travel
 - Miscellaneous
 - Overseas
- A.6 Each of the 12 reserving classes is then further divided into Primary and Secondary & Other academy types. This creates 24 unique reserving groups and this is the level at which outstanding claims provisions are set.
- A.7 The number of groups used must be balanced against the volume of data available, as each group must have sufficient data to achieve a robust statistical measure. This consideration, along with the requirements of DfE, led to the choice of the segmentation outlined above.
- A.8 As the RPA has only been operating for a short period of time there is limited claims data in some of these reserving groups. Where this is the case, there is a lack of statistical credibility which should be borne in mind.

Appendix B: Glossary

- A.9 Expired exposure - The exposure corresponding to the expired risk period.
- A.10 Expired risk period - The risk period for which, up to a certain date, RPA policies have been in force.
- A.11 Exposure - A measure that represents the risk. Possibilities for the RPA are the number of academies and number of pupils. Pupil numbers were chosen since these give an indication of the size of the academies within the RPA, which will affect the risk. The exposure is measured in 'pupil years' such that the duration that pupils have been covered by the RPA is taken into account.
- A.12 Future claim amounts - This is all claims estimated to be reported and ultimately paid in the future relating to exposure within a given academic or financial year. For a given year this estimate is the sum of the IBNER, IBNR and estimated ultimate claims for the unexpired risk period.
- A.13 Future claim numbers - This is all claims estimated to be reported and ultimately settled in the future relating to exposure within a given academic or financial year. For a given year this estimate is the sum of the IBNR numbers and estimated ultimate claim numbers for the unexpired risk period.
- A.14 Government Actuary's Department ('GAD') - A non-ministerial government department providing actuarial advice to public sector clients. For more information see www.gov.uk/gad.
- A.15 IBNER - For the RPA, exposure is considered in academic years running from September to August. At the end of each exposure year there will still be outstanding claim amounts that have not yet been received, relating to that period. These amounts that are expected to arise in future are referred to as incurred but not enough reported ('IBNER') claims.
- A.16 IBNR - For the RPA, exposure is considered in academic years running from September to August. At the end of each exposure year there will still be claims that have not yet been received, relating to that period. These amounts that are expected to arise in future are referred to as incurred but not reported ('IBNR') claims. Often IBNR is used to refer to both 'pure IBNR' (as per the definition above) and IBNER combined, however in this report we refer to IBNR to just mean the pure IBNR, excluding IBNER. IBNR numbers are the number of claims that have incurred but have yet to be reported.
- A.17 Latent claims - These are claims of a type that was not anticipated at the time that cover was provided.
- A.18 Long tail - A claim type is referred to as 'long-tailed' where claims reporting and/or claims payments may occur many years after the risk period has expired. Long tail risk is the risk that claims may be made many years after the risk period has expired. (See also short tail)
- A.19 Peril - The specific source of loss to the risk pool. Examples include fire, theft and injury.
- A.20 Personal injury - Legal term for injury to body, mind or emotions.
- A.21 Reported claims - For a given academic year, the reported claims at a certain point in time is the total amount that the claim handlers estimate the claims that have been notified to date to ultimately cost, where these claims originate in the given academic year.
- A.22 Return period - An expression of the expected frequency of occurrence of an event. It represents the frequency on a 1 in 'x' basis, where x is the return period. A common event may have a return period of 1, implying an expected occurrence rate of once per year. More remote events will have much higher return periods.
- A.23 Risk period - The time for which the expectation is to have RPA policies in force.

- A.24 Short tail - A claim type is referred to as 'short-tailed' where claims reporting and/or claims payments occur within the space of a few years after the risk period has expired.
- A.25 Triangle or Claims triangle - Manipulating data into a triangle format is a way of presenting the data to aid analysis of the development of the data over time. Triangles are made of reported claims, paid claims, claim numbers and average claim cost. Going across in the triangle is the development period, for example claims reported month. Going down is the origin period, for example the academic month that the incident occurred. Each row then shows all claims where the incident occurred during the same time period, and going right in the row shows how the claim amount or number changes over time since the incident period.
- A.26 Ultimate claim - The total final amount that will be paid for claims originating from a given academic or financial year. This is the aggregate of claims that have been reported and estimated future claim amounts.
- A.27 Unexpired exposure - The exposure corresponding to the unexpired risk period.
- A.28 Unexpired risk period - The remaining risk period for an academic/financial year for which, as at a certain date, RPA policies are expected to be in force.

Appendix C: Analysis of Fire Claims

A.29 The RPA provides property damage and business interruption cover that responds to fire losses. This section provides more information on the RPA's claims experience in relation to these losses.

A.30 The following table shows the number of individual members in the RPA, the number that have experienced a fire-related event and the average cost of a fire-related event. This information is shown for the historical academic years where fire loss experience is considered to be mature and where no material updates are expected.

Academic year	2014/15	2015/16	2016/17	2017/18	2018/19
No. of individual RPA members	912	2,169	3,657	4,718	5,494
No. of members who have experienced a fire-related event	12	15	36	36	47
Average cost of fire event	£14,280	£245,063	£77,352	£88,169	£78,531

A.31 The high average cost of a fire event in 2015/16 is a result of several larger losses that occurred during this academic year.

Notes on construction

A.32 A fire-related event is one where the claims handler has recorded the main cause of loss to be fire and this has resulted in damage to the fabric of a school building, contents owned by the school, or has caused the school to incur additional costs associated with finding alternative accommodation. This definition excludes a small number of claims where fire has been the cause of other types of loss (for example damage to the property of third parties).

A.33 The number of RPA members is measured at the end of each academic year. As the RPA membership has been increasing over time, the number of members at the end of an academic year is greater than the average membership during that period.

A.34 The number of members who have experienced a fire-related event is calculated as any member that recorded at least one fire loss that was greater than zero. If a member experienced more than one claim, they are only included once. Nil-claims, i.e. claims that resulted in no cost the RPA, have been excluded.

A.35 The average cost of a fire-related event, taken as the sum of reported fire-related claims divided by the number of non-nil claims in a given academic year.

A.36 The most recent academic year (2019/20) is not shown. This is because the fire data for this academic year is immature and may be subject to further development.