



Government
Actuary's
Department

Department for Education Risk Protection Arrangement

Estimated provisions as at 31 August 2022

Summary of key results

9 February 2023
Matt Kirkpatrick

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Compliance

Terms of reference

- 1.1 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 28 April 2022. This report is a summary of the estimates of claim provisions as at 31 August 2022 from advice provided to DfE by GAD between October 2022 and December 2022.

Distribution and limitations

- 1.2 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.
- 1.3 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 March 2022.
- 1.4 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.

Executive Summary

Introduction

- 2.1 This report has been prepared by the Government Actuary's Department ('GAD') at the request of the Department for Education ('DfE').
- 2.2 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 August 2022. This work was undertaken between September 2022 and December 2022. This report is based on data and the policy environment as at 31 August 2022 and makes no allowance for changes since this time.
- 2.3 The scope of this review includes estimates of provisions for:
- The academic years 2014/15 to 2021/22
 - The financial years 2014-15 to 2021-22
 - Each future academic year from 2022/23 up to and including 2027/28
 - Each future financial year from 2022-23 up to and including 2027-28
- 2.4 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 August 2022.

Background

- 2.5 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.
- 2.6 The arrangement has been operational since 1 September 2014. Originally, the RPA was only available to academy schools, but membership was widened to local authority maintained schools ('LAMS') on 1 April 2020.
- 2.7 For academies, participation in the RPA requires a deduction at source from the academy's general annual grant ('GAG'). This deduction is calculated on an academic year basis:

Academic Year	Per Pupil Deduction
2014/15	£25.00
2015/16	£25.00
2016/17	£20.00
2017/18	£20.00
2018/19	£20.00
2019/20	£18.00
2020/21	£18.00
2021/22	£19.00
2022/23	£21.00

Exhibit 1: RPA per pupil reduction for academies by academic year

2.8 For LAMS the deduction is calculated on a financial year basis:

Financial Year	Per Pupil Deduction
2020-21	£18.00
2021-22	£19.00
2022-23	£21.00

Exhibit 2: RPA per pupil reduction for LAMS by financial year

- 2.9 The RPA covers property damage and business interruption ('PDBI'), public liability ('PL'), employers' liability ('EL') and travel ('Travel'). It has covered the cost of cyber attacks ('Cyber') from April 2022. 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.
- 2.10 GAD's previous review of the RPA outstanding claims provisions was as at 31 March 2022. In this report we provide comparisons to the GAD provision estimates as at 31 March 2022, referring to these as the 'March 2022 review estimates'. Our estimates as at 31 August 2022 are referred to as the 'current estimates'.
- 2.11 The provisional estimates were analysed split by:
- Type of academy: Primary and Secondary & Other
 - Main provisioning class: PDBI, PL, EL, and Travel
 - Peril: The main classes are each split by multiple perils:
 - PDBI includes seven perils: Fire, Flood, General Damage, Malicious Damage, Storm, Theft, and Cyber
 - PL includes two perils: Injury and Property & Other
 - EL includes two perils: Injury and Dispute & Other
 - Travel includes two perils: Overseas and Miscellaneous

- 2.12 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.
- 2.13 The RPA had been operational for 8 years as at 31 August 2022. The number of academies and LAMS within the RPA has been increasing since it first became operational, and as at the date of our review the RPA provided coverage to:
- 7,711 academies and 3.5 million academy pupils; and
 - 1,957 local authority schools and 0.6 million LAMS pupils.
- 2.14 Appropriate assumptions regarding future joining rates for academies and LAMS have been determined through consultation with the RPA.
- 2.15 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

- 2.16 This assessment of the claims provisions considers the effects of COVID-19 on the RPA cover.
- 2.17 The vast majority of claims directly caused by COVID-19 have arisen from the Travel class due to the cancellation of school trips that were arranged before restrictions were introduced in early 2020. These claims were reported across the 2019/20 and 2020/21 academic years.
- 2.18 From September 2021, travel restrictions for schools in England have been eased, meaning that schools have been able to arrange new trips both within the UK and overseas.
- 2.19 There is still a risk that COVID-19 infections rise again (e.g. due to a new variant) to a level that prompts the government to reintroduce travel restrictions, which could lead to a large number of school trip cancellations and subsequent RPA claims. We consider the re-emergence of COVID-19 to be part of the RPA's wider exposure to large and catastrophic risk and do not make an explicit allowance for it.
- 2.20 Note that the risk of travel restrictions is different to the persistent risk of infection among pupils or staff, which can lead to the cancellation of a school trip in respect of either an individual or the whole group. Since September 2021, there have been a steady number of claims of this nature, but these have been at a relatively low level. There is evidence that the frequency and size of claims in the Travel class have begun to revert to pre-pandemic levels.
- 2.21 Whilst the main effects of COVID-19 are observed in the Travel classes, there is also evidence of a secondary effect emerging from the EL Injury and PL Injury classes. The claim frequency for these classes is significantly lower during the years affected by COVID-19. This could be due to reduced time on site for both pupils and teachers,

giving less scope for incidents to occur and claims to be reported. Whilst the magnitude of the reduction in claims is much smaller, this has partly offset the increase in Travel claims.

- 2.22 The full impact of COVID-19 is still uncertain and as such, there may be changes to DfE and GAD's view on the extent of the losses as further data emerges. As time progresses, these uncertainties begin to recede and the claims arising from COVID-19 will cease to become a material risk to the RPA.

Inflation

- 2.23 The last year saw significant increases in inflation, with the consumer price index (CPI) increasing by approximately 10%. In particular, there has been significant inflationary pressure on the costs of building materials.
- 2.24 The PDBI class is greatly affected by building material and labour costs and so claim inflation is expected to be high in the short term. To allow for this, a variable, year-on-year measure of inflation has been incorporated into the provisioning calculations. Previously, a flat rate of inflation had been used for future year projections.
- 2.25 The updated methodology and assumptions have resulted in higher projected costs for future years from academic year 2021/22 onwards, and inflation has a compounding impact on the expected claims costs for all future years. This is discussed in more detail below.

Cyber

- 2.26 From April 2022, the RPA has extended its cover for LAMS to costs associated with Cyber claims. Cyber cover for academies started from September 2022.
- 2.27 Cyber is included within the calculations for expected ultimate costs for academic year 2021/22 and for expected ultimate costs for future years. For the purpose of this review, it has been categorised as a sub-class of PDBI.

Summary of results by academic year

Academic year 2014/15 results

- 2.28 The chart below shows the expectation of ultimate claims for the 2014/15 academic year, as at 31 August 2022 and as at 31 March 2022 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.

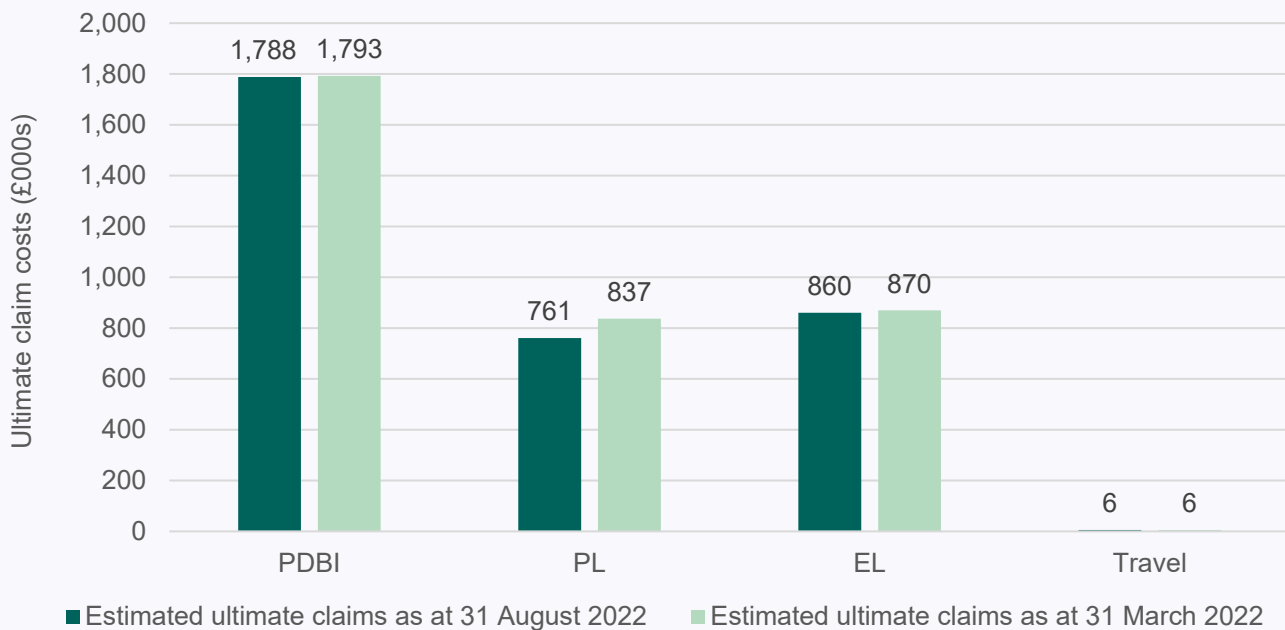


Exhibit 3: Summary of GAD academic year 2014/15 ultimate claims estimates by class (£000s)

- 2.29 Our current estimate of ultimate claims for the 2014/15 academic year is £3.4m. This is £0.1m lower than the March review estimate which was £3.5m.
- 2.30 This increase is driven by a small change in the PL Injury sub-class, which experienced case reserve savings on the remaining open claims.
- 2.31 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

- 2.32 The chart below shows the expectation of ultimate claims for the 2015/16 academic year, as at 31 August 2022 and as at 31 March 2022. The 2015/16 academic year covers the 12-month period from 1 September 2015 to 31 August 2016.

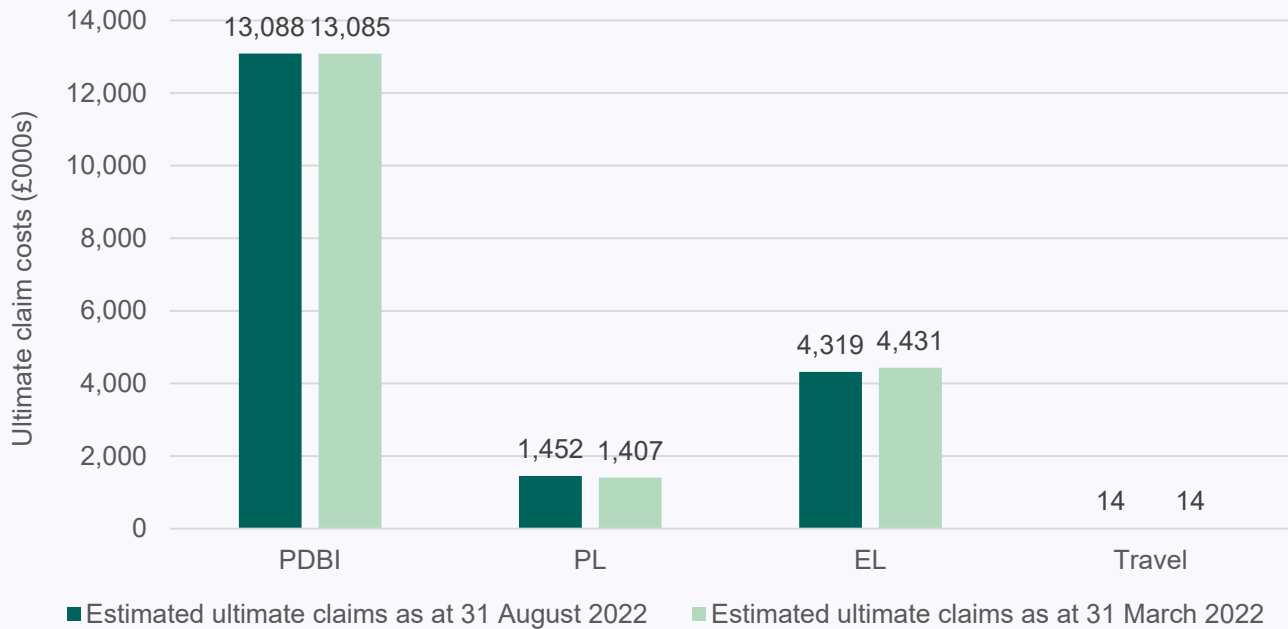


Exhibit 4: Summary of GAD academic year 2015/16 ultimate claims estimates by class (£000s)

- 2.33 Our current ultimate claims estimate for the 2015/16 academic year is £18.9m. This is £0.06m lower than the March 2022 review estimate which was £18.9m.
- 2.34 This decrease is driven by a £112k improvement in the EL class as a result of case reserve savings.

Academic year 2016/17 results

- 2.35 The chart below shows the expectation of ultimate claims for the 2016/17 academic year, as at 31 August 2022 and as at 31 March 2022. The 2016/17 academic year covers the 12-month period from 1 September 2016 to 31 August 2017.

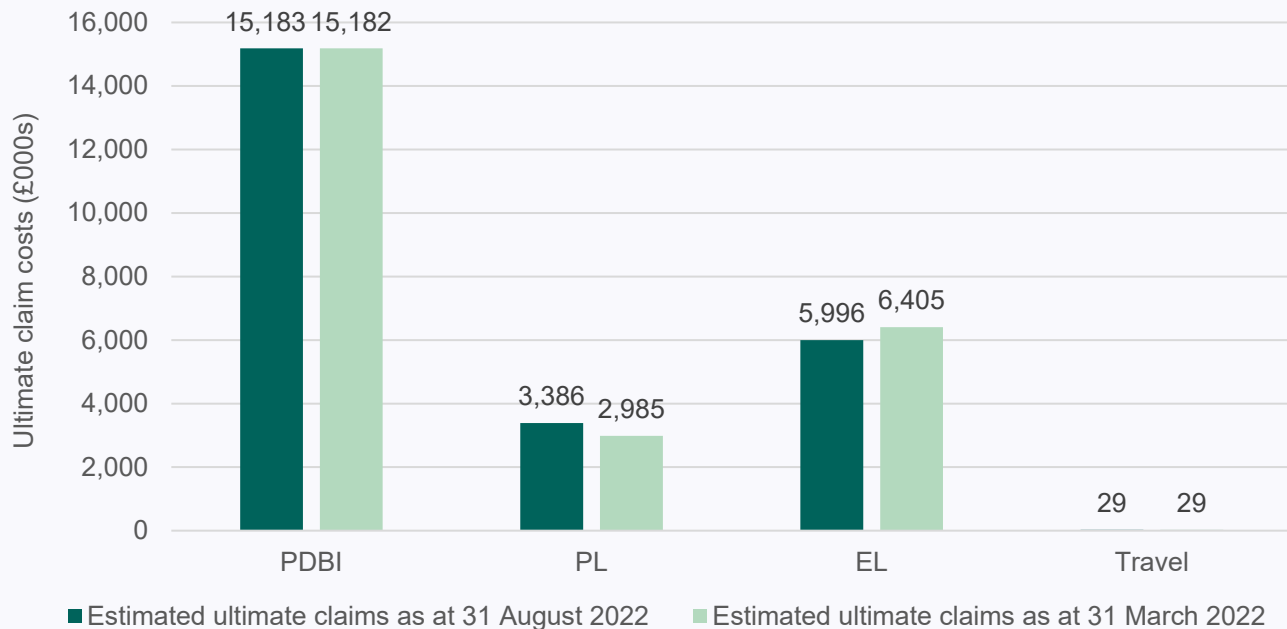


Exhibit 5: Summary of GAD academic year 2016/17 ultimate claims estimates by class (£000s)

- 2.36 Our current ultimate claims estimate for the 2016/17 academic year is £24.6m. This is less than £0.01m lower than the August 2021 review estimate which was £24.6m.
- 2.37 Whilst the overall movement is neutral, there are two offsetting movements in the EL and PL classes. The PL class deteriorated by £0.4m driven by a large deterioration on one open claim that relates to a head injury. This was offset by a £0.4m improvement in the EL class as a result of beneficial case reserve movements.

Academic year 2017/18 results

- 2.38 The chart below shows the expectation of ultimate claims for the 2017/18 academic year, as at 31 August 2022 and as at 31 March 2022. The 2017/18 academic year covers the 12-month period from 1 September 2017 to 31 August 2018.

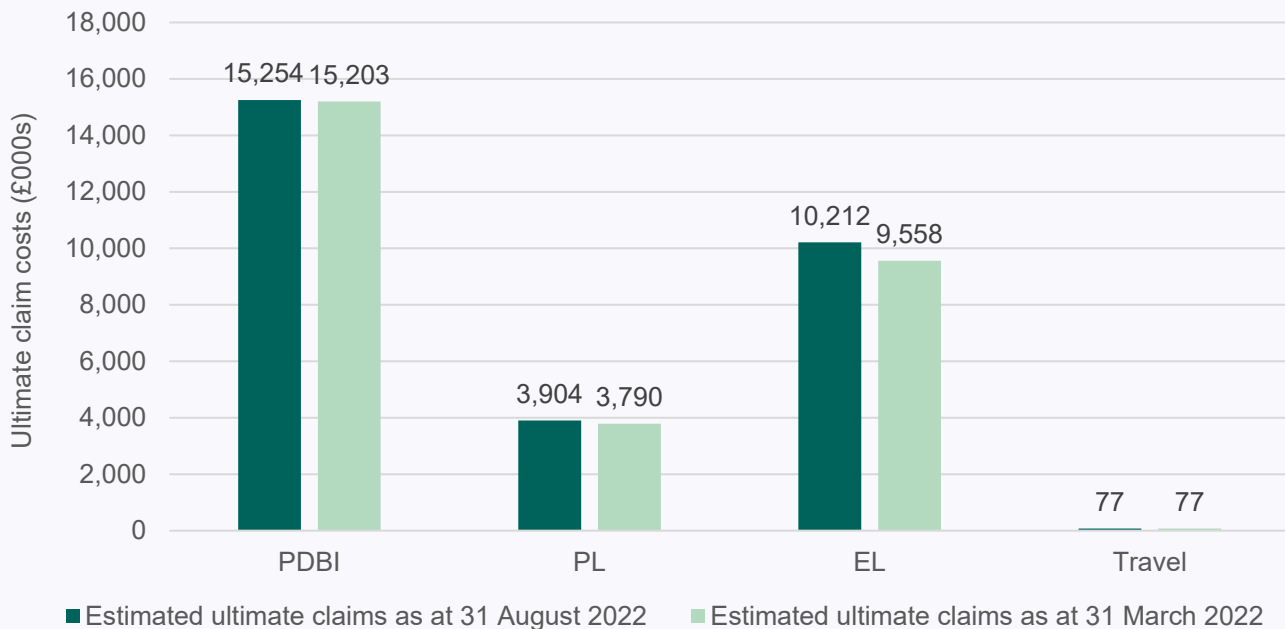


Exhibit 6: Summary of GAD academic year 2017/18 ultimate claims estimates by class (£000s)

- 2.39 Our current ultimate claims estimate for the 2017/18 academic year is £29.4m. This is £0.8m higher than the March 2022 review estimate which was £28.6m.
- 2.40 The deterioration is driven by the EL Injury sub-class, which saw adverse claims experience including two historic claims that deteriorated by £0.3m and £0.5m respectively.

Academic year 2018/19 results

- 2.41 The chart below shows the expectation of ultimate claims for the 2018/19 academic year, as at 31 August 2022 and as at 31 March 2022. The 2018/19 academic year covers the 12-month period from 1 September 2018 to 31 August 2019.

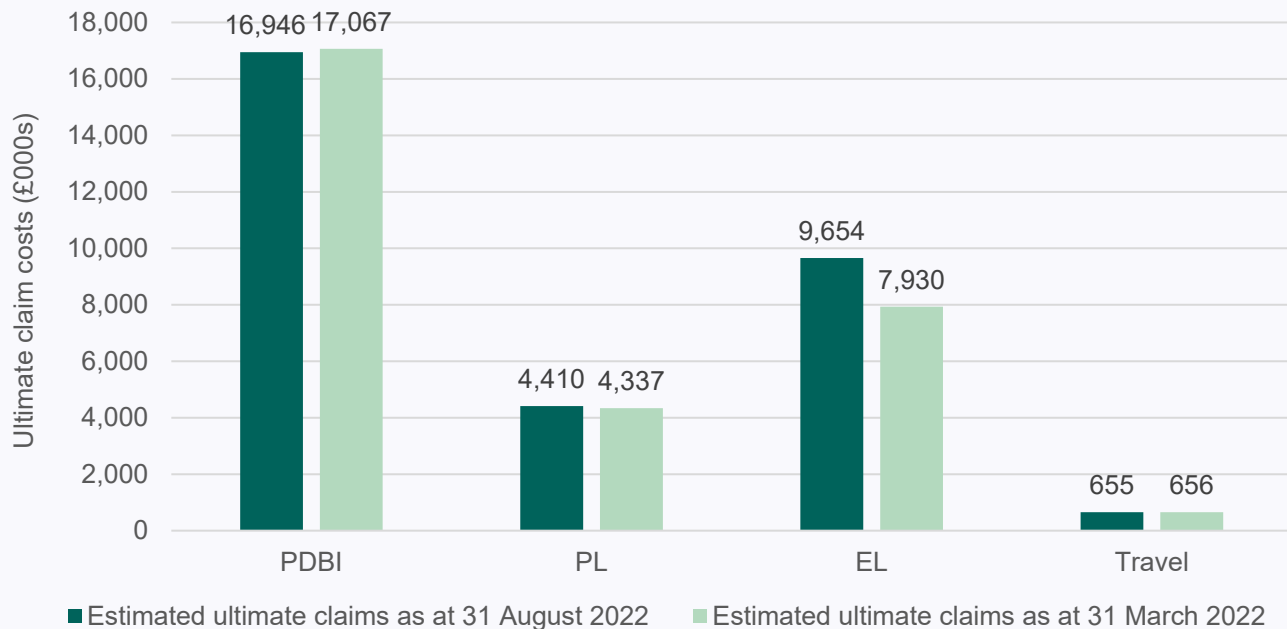


Exhibit 7: Summary of GAD academic year 2018/19 ultimate claims estimates by class (£000s)

- 2.42 Our current ultimate claims estimate for the 2018/19 academic year is £31.7m. This is £1.7m higher than the March 2022 review estimate which was £30.0m.
- 2.43 The movement is driven by the EL class which deteriorated by £1.7m. This is a result of significant deteriorations of two individual claims that deteriorated by £0.7m and £0.6m respectively.

Academic year 2019/20 results

- 2.44 The chart below shows the expectation of ultimate claims for the 2019/20 academic year, as at 31 August 2022 and as at 31 March 2022. The 2019/20 academic year covers the 12-month period from 1 September 2019 to 31 August 2020.

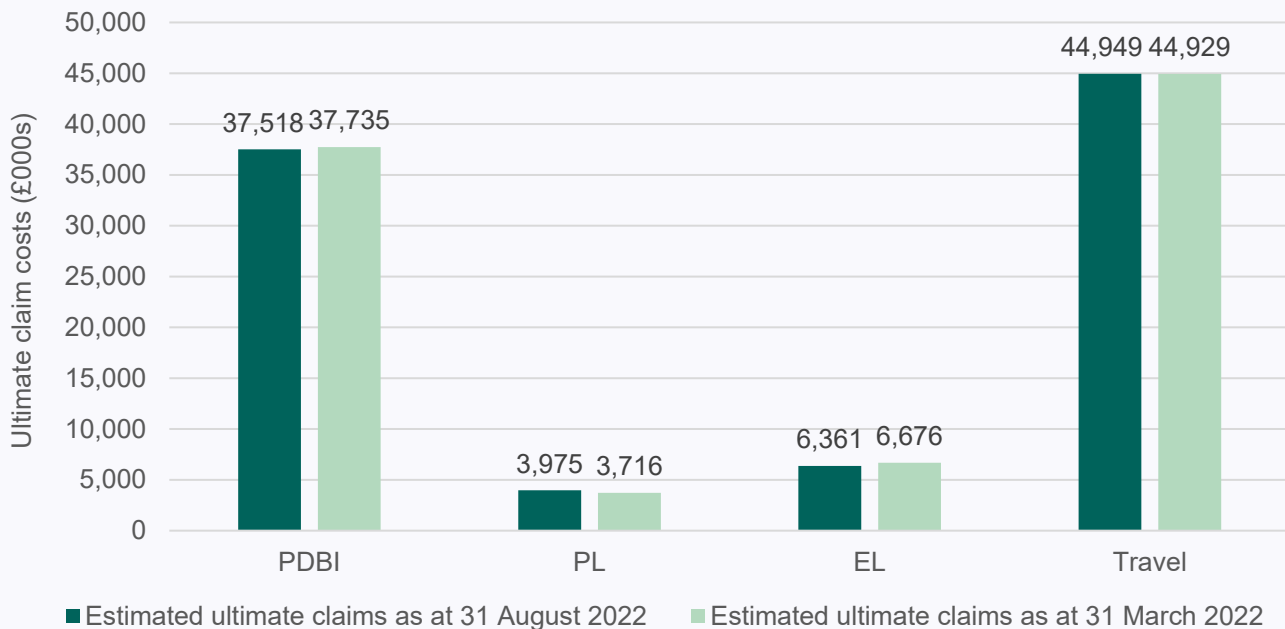


Exhibit 8: Summary of GAD academic year 2019/20 ultimate claims estimates by class (£000s)

- 2.45 Our current ultimate claims estimate for the 2019/20 academic year is £92.8m. This is £0.3m lower than the March 2022 review estimate which was £93.1m.
- 2.46 The PDBI class improved by £0.2m and the EL class improved by £0.3m. This was offset by a £0.3m deterioration in the PL class.

Academic year 2020/21 results

- 2.47 The chart below shows the expectation of ultimate claims for the 2020/21 academic year, as at 31 August 2022 and as at 31 March 2022. The 2020/21 academic year covers the 12-month period from 1 September 2020 to 31 August 2021.

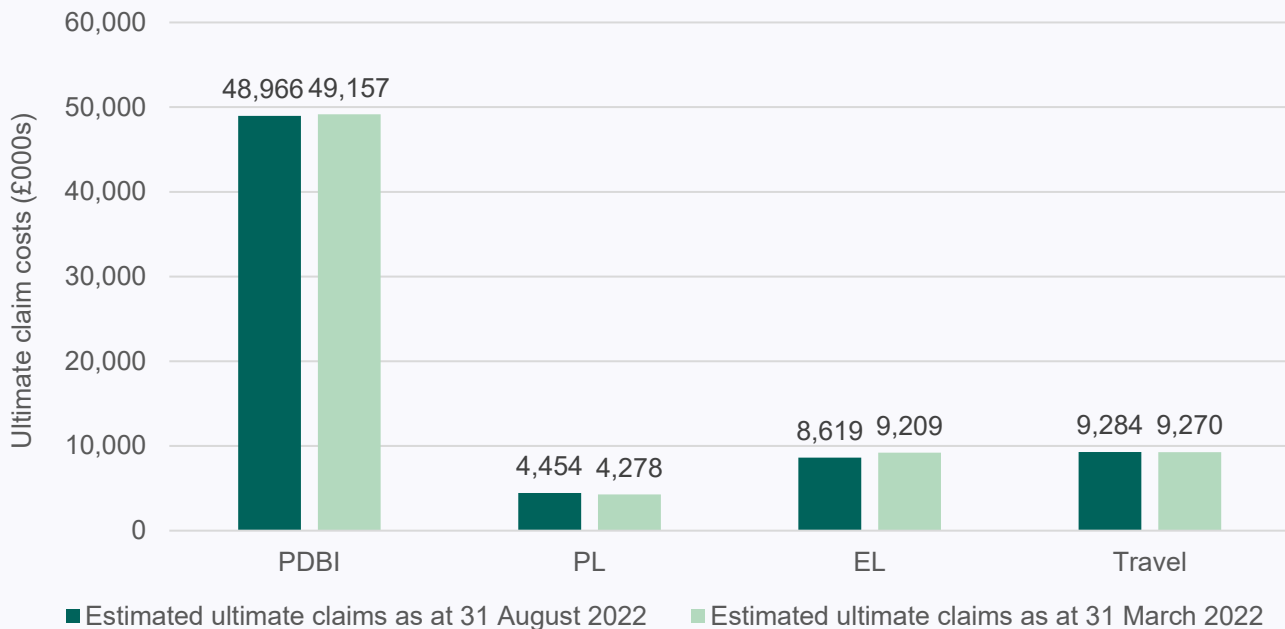


Exhibit 9: Summary of GAD academic year 2020/21 ultimate claims estimates by class (£000s)

- 2.48 Our current ultimate claims estimate for the 2020/21 academic year is £71.3m. This is £0.6m lower than the March 2022 review estimate which was £71.9m.
- 2.49 PDBI has improved by £0.2m which is a result of larger offsetting movements at the sub-class level. Flood deteriorated by £1.9m as a result of a £1.8m deterioration of an existing large claim. General Damage & Other improved by £1.4m after good experience in the period.
- 2.50 The PL class has deteriorated by £0.2m as a result of offsetting movements at the sub-class level. The EL class has improved by £0.6m as a result of good experience in the Dispute & Other sub-class, while the PL class deteriorated by £0.2m.

Academic year 2021/22 results

2.51 The chart below shows the expectation of ultimate claims for the 2021/22 academic year, as at 31 August 2022 and as at 31 March 2022. The 2021/22 academic year covers the 12-month period from 1 September 2021 to 31 August 2022.

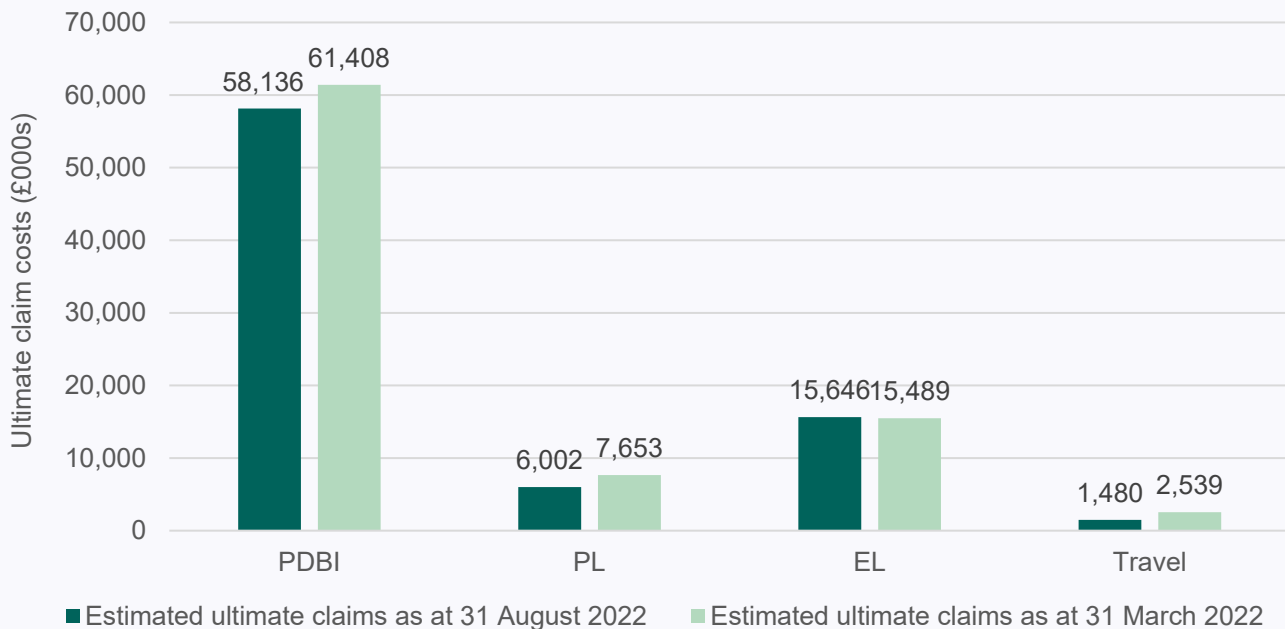


Exhibit 10: Summary of GAD academic year 2021/22 ultimate claims estimates by class (£000s)

- 2.52 Our current ultimate claims estimate for the 2021/22 academic year is £81.3m. This is £5.8m lower than the March 2022 review estimate which was £87.1m.
- 2.53 The PDBI class improved by £3.3m overall, which was driven by a lack of new large Fire or Storm losses. There was just one large loss in General Damage & Other for £1.0m which relates to water damage.
- 2.54 The PL class improved by £1.7m which was driven by very good experience in the PL Injury sub-class.
- 2.55 Travel improved by £1.1m as a result of significantly better experience than expected in the Travel Overseas sub-class. This is due to COVID-19 cancellation claims being much lower than expected.

Future academic year results

- 2.56 The following chart shows our current estimate of ultimate claims for the 2022/23 to 2027/28 academic years alongside the corresponding estimates from our March 2022 review.

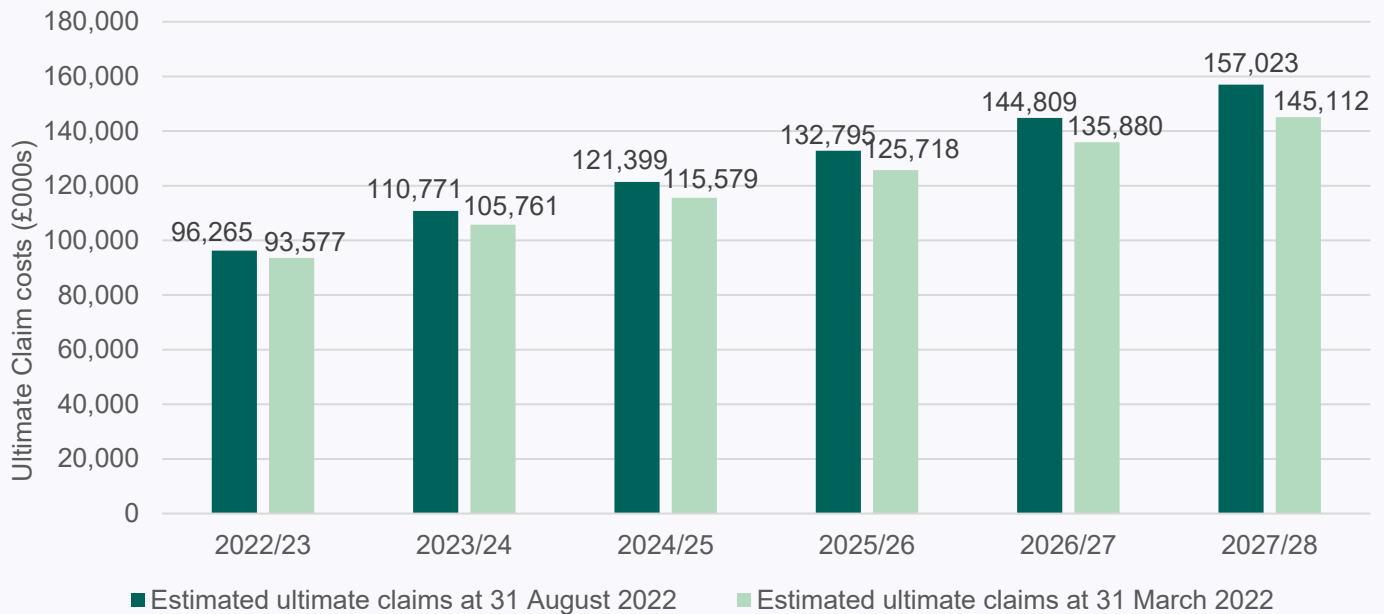


Exhibit 11: Summary of GAD future academic year ultimate claims estimates (£000s)

- 2.57 Our current ultimate claims estimate for the future academic year 2022/23 is 3% higher than the March 2022 review estimate. One of the key drivers of the increase in future expected ultimate claims is the increase in inflation assumptions for PDBI and Travel since the previous review.
- 2.58 Further details on the academic years 2022/23 to 2027/28 results can be found in paragraphs 3.31 to 3.34.

Analysis

- 3.1 This section describes the data, methodology and assumptions that we have used to perform our independent analysis of the RPA's outstanding claims provisions.
- 3.2 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

- 3.3 Our analysis is supported by the following information and data:
- Claims data tables as at each month end from 30 September 2014 to 31 August 2022, which are provided by the RPA claim handler
 - Additional claims data table as at 30 September 2022, which was required to assess any material movements in individual claims since 31 August 2022
 - RPA membership data
 - DfE forecasts of future academy numbers
 - Data collected by DfE on local authorities outlining the number of RPA members, expiry date of commercial cover (if known) and intention to join,
 - Data on schools in England from DfE's Get Information about Schools ('GIAS') service as at September 2022
- 3.4 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.
- 3.5 Please see Appendix A for more detail on the data provided.

Overview of projection methodology

- 3.6 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

- 3.7 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.

Projection of academies within the RPA

- 3.8 Using DfE's own estimates of future academy numbers, 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:
- 73% of new academies join the RPA each month;
 - On average approximately 1.2% of existing academies that have not yet joined the RPA, join each month; and
 - On average approximately 0.03% of academies that have joined the RPA will opt out for an alternative arrangement.
- 3.9 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.
- 3.10 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 March 2022 review estimates – academies forecast

- 3.11 The actual number of academies that joined the RPA over the 5 months between March 2022 and August 2022 has been slightly lower than our expectations.

Projection of LAMS within the RPA

- 3.12 In addition to the indicative estimates provided to us by the RPA 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:
- All local authorities ('LAs') renew their insurance between September 2022 and March 2026
 - There is a distribution of LAs renewing their insurance over the year. The percentages of renewals vary per month and is based on known, historical renewal dates
 - Each local authority is assigned a status based on engagement with DfE
 - A proportion of the schools within each LA join the RPA, varying by status

- A proportion of the schools within each LA convert into an academy each year, therefore reducing the LAMS population over time
- No new LAMS are created, reducing the LAMS population that are available to join the RPA each year
- LAMS are assumed to join at their renewal date and it is assumed that all schools within a local authority have the same renewal date
- LAMS operate on a financial year basis and so we assume uptake will be higher at the start of the financial year
- After March 2026, the RPA membership of LAMS is assumed to grow at a decaying rate each year up to financial year 2029
- We 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

- 3.13 We multiply the total estimated number of academies joining the RPA by the assumed average number of pupils for each school type. This is added to the number of academy pupils that are already members of the RPA to get an expected number of pupils for each school type for each future month until the end of the 2027/28 academic year.
- 3.14 For academies that participated in the RPA between 2014/15 and 2021/22 the average pupil numbers for primary academies and secondary academies are lower than the averages within the total UK school population.

Projection of LAMS pupils within the RPA

- 3.15 We multiply the total estimated number of LAMS within the RPA by the assumed average number of pupils for each school type (primary or secondary & other) and for each future academic year.
- 3.16 The assumed average number of pupils for each school type is calculated from nationwide GIAS data. LAMS joining the RPA are assumed to have pupil numbers equal to the average LAMS in England of that type.

Comparison to March 2022 review estimates – pupil number forecast

- 3.17 The actual increase in the number of pupils covered by the RPA over the 5 months between March 2022 and August 2022 has been lower than our expectations.

Comparison to March 2022 review estimates – pupil years of exposure

- 3.18 The pupil numbers for LAMS and academies are combined to determine the overall pupil numbers for the RPA.
- 3.19 We then convert these pupil numbers into pupil years of exposure for each academic year by accumulating 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.

- 3.20 The following chart shows the expected ultimate pupil exposure based on data as at 31 August 2022 alongside our 31 March 2022 review estimate of ultimate pupil exposure, for the years where coverage has commenced (2014/15 through to 2021/22).

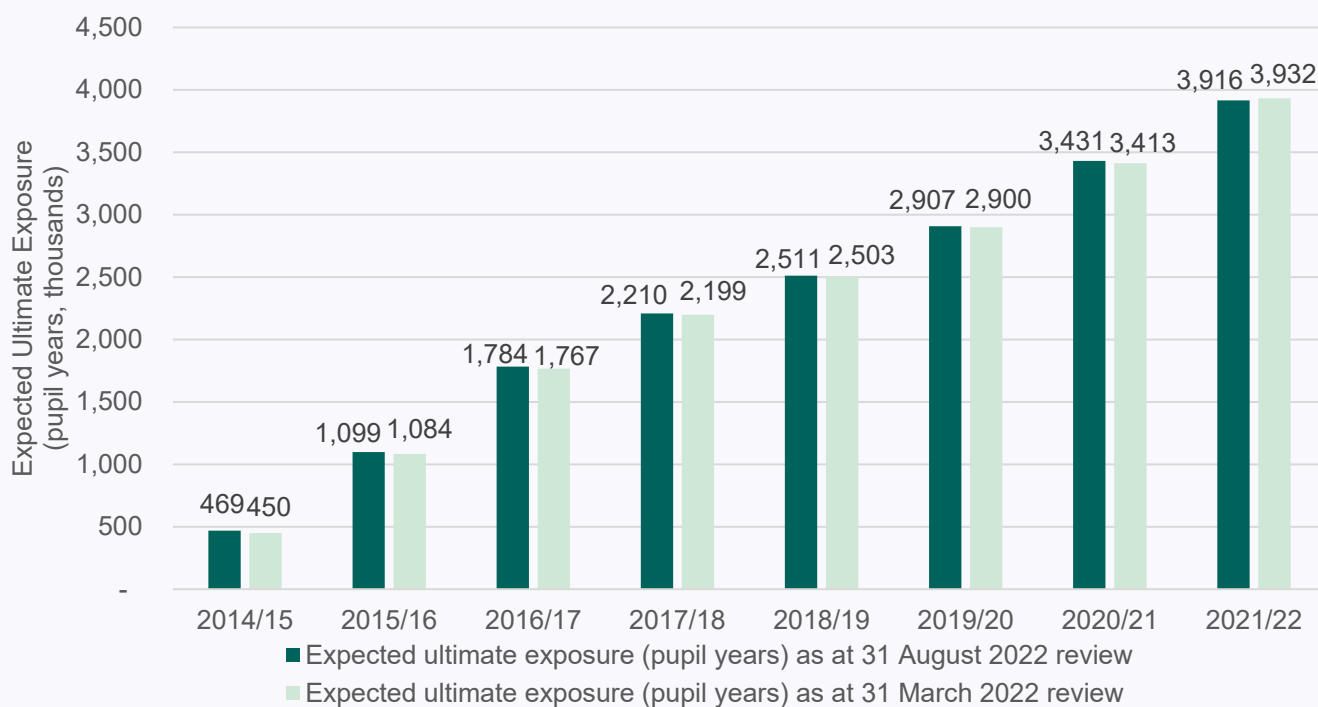


Exhibit 12: Summary of GAD ultimate exposure in pupil years (pupil years shown in 1,000s)

- 3.21 This exhibit shows that our exposure estimates for most years where coverage has commenced (2014/15 through to 2021/22) have increased slightly, which is due to a methodology change. For this review, we assume schools that joined the RPA outside of September did so at the start of the month, rather than the middle. The pupils at these schools are now assumed to contribute a full month of risk exposure instead of a half-month.
- 3.22 There are also small movements to these past years typically due to changes in the underlying membership data (for example, updates of pupil numbers). Our estimates for most future years have increased, though it is lower for the next academic year, 2022/23.

Projection of claims

- 3.23 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.
- 3.24 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 2022 when there are still five months of future coverage for the latest academic year.

3.25 Ultimate claims include all of the above along with the current value of claims that have been reported as at 31 August 2022 (known as the reported claims).

3.26 One of the techniques we have used to estimate ultimate claims is to project forward each academic year using the patterns shown in the figures 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.

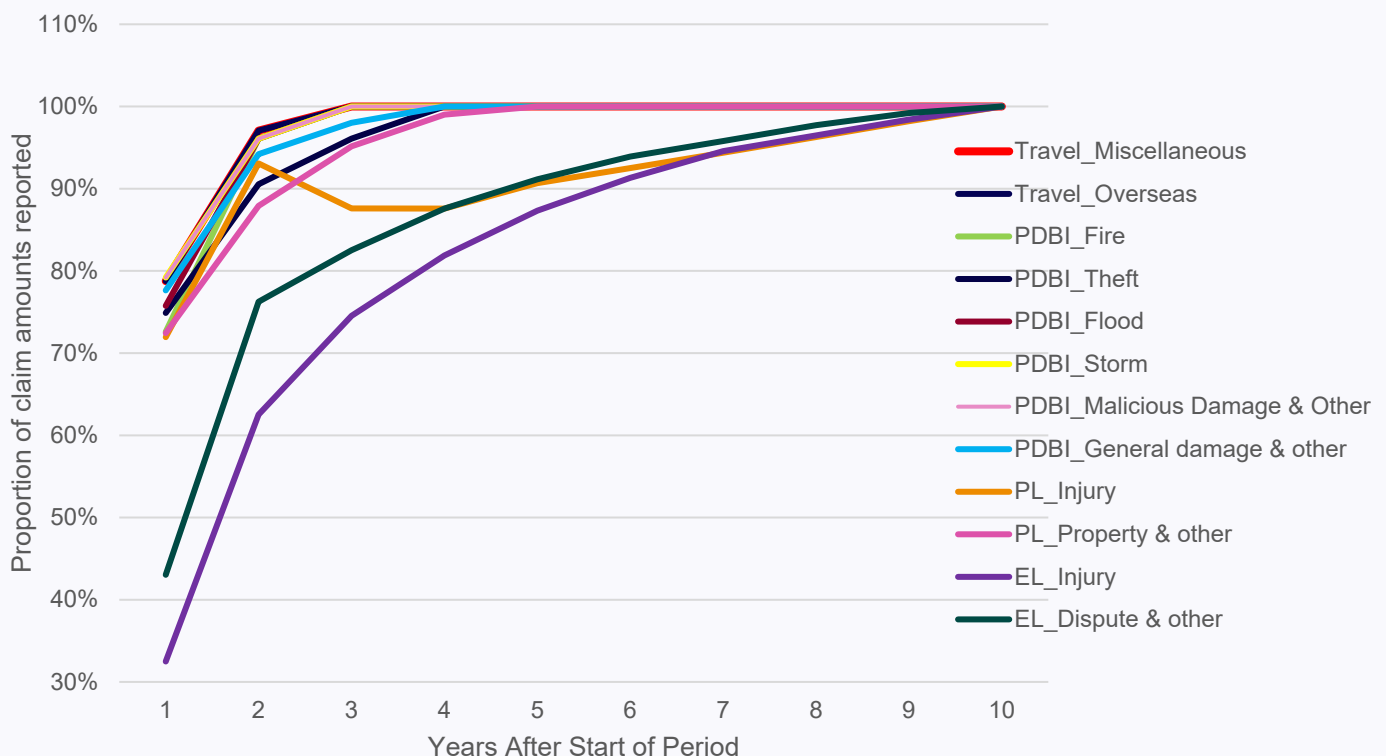


Exhibit 13: Claim amounts reported cumulative development patterns for each provisioning class

Department for Education - Risk Protection Arrangement
Estimated provisions as 31 August 2022

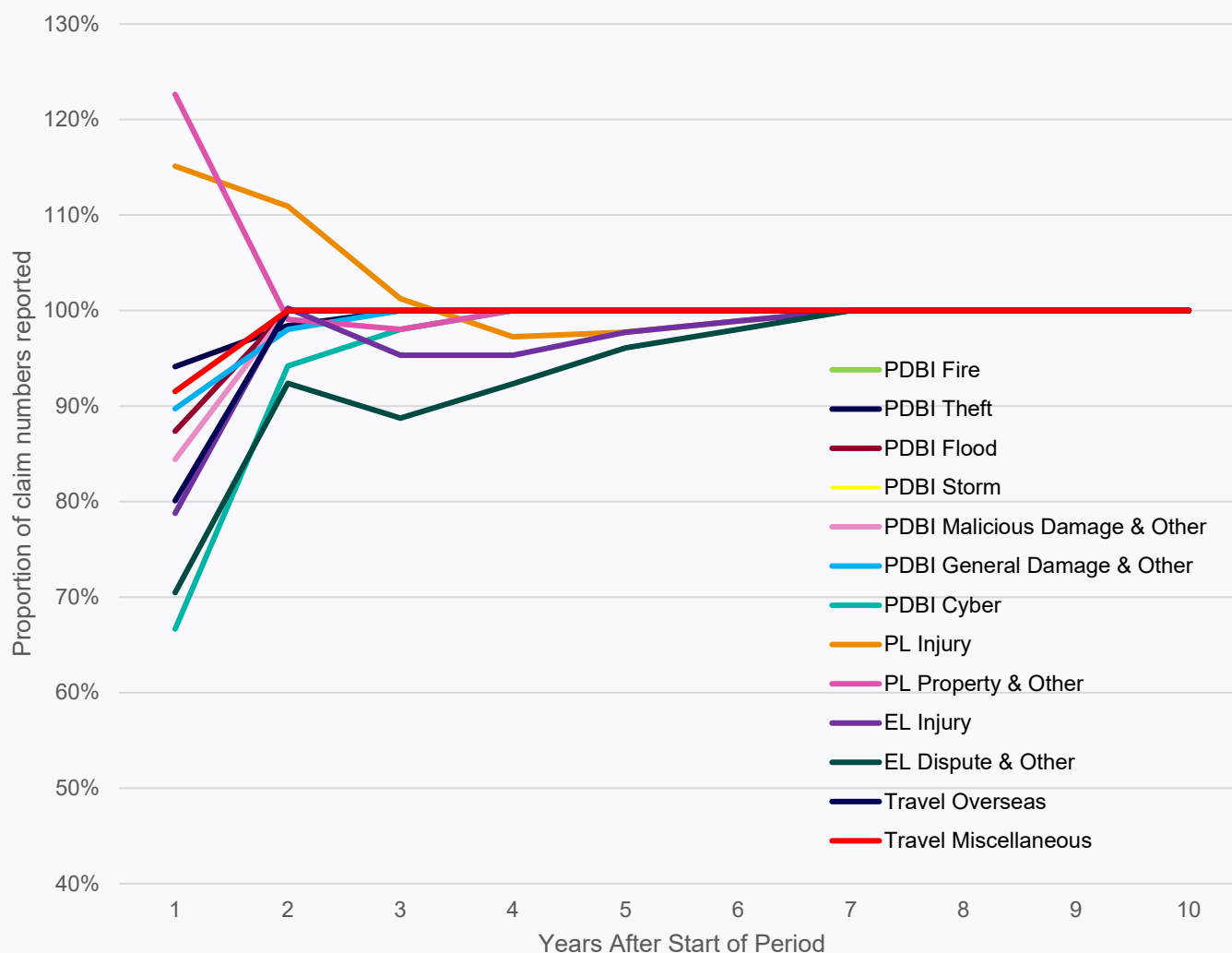


Exhibit 14: Claim numbers reported cumulative development patterns for each provisioning class

- 3.27 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).
- 3.28 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).
- 3.29 We considered the results from several methods when selecting the ultimate number of claims and the ultimate claim amount for each class.
- 3.30 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.

Projection of claims for future academic years 2022/23 to 2027/28

3.31 The following chart shows our current ultimate claims estimate for the 2022/23 to 2027/28 academic years, alongside the corresponding estimates from our March 2022 review. These academic years cover the 12-month periods from 1 September 2022 to 31 August 2028. All figures exclude claim expenses.

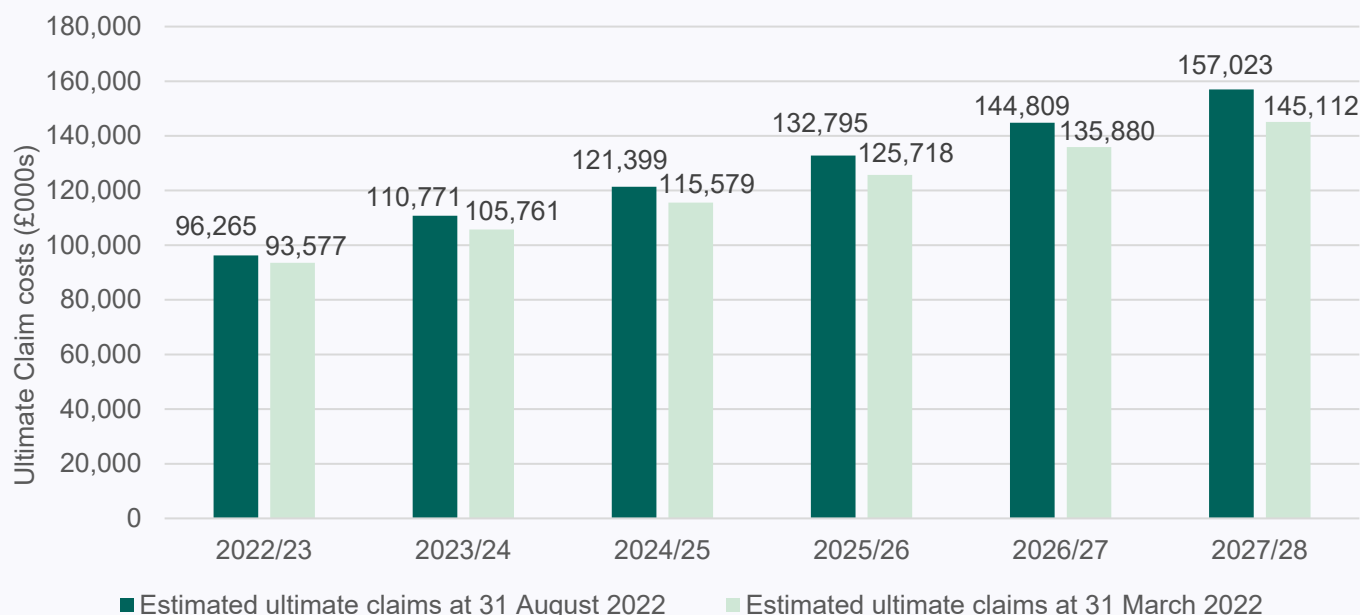


Exhibit 15: Summary of GAD future academic year (2022/23 to 2027/28) ultimate claim estimates (£000s)

- 3.32 Our current ultimate claims estimate for the future academic year 2022/23 is 3% higher than the March 2022 review estimate. The current estimate of ultimate claims for future academic year 2025/26 is approximately 6% higher than the March 2022 review estimate.
- 3.33 The key driver of the increase in future expected ultimate claims is the increase in inflation assumptions for the PDBI and Travel classes, which also allow for a short-term spike in inflation.
- 3.34 Our view of future costs is based on estimates of claim frequency and average claim severity for each of the different types of cover offered by the RPA. These estimates are based upon the RPA's historical experience for each type of cover. The frequency assumptions are the same for all future academic years, whilst the severity assumptions are increased to allow for inflation.

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

- 3.36 Our estimates of the ultimate loss for each financial year are calculated by reallocating the academic year results. The reallocation methodology is as follows:
- 3.37 The monthly claims data provided by the RPA claim handler 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.
- 3.38 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.
- 3.39 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.
- 3.40 For each provisioning 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.

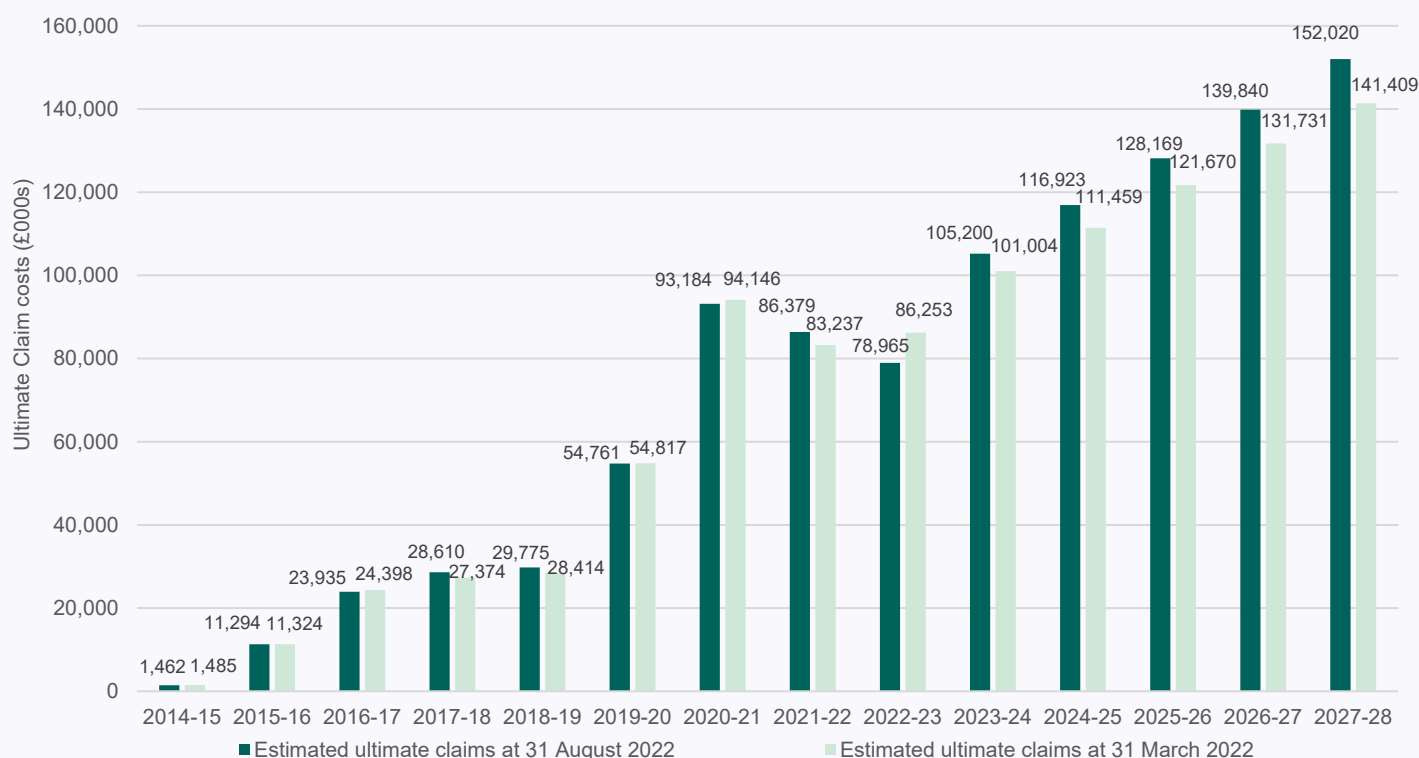


Exhibit 16: Financial year estimates as at August 2022 and March 2022 (£000s)

- 3.41 The changes on a financial year basis are driven by the same features as the academic year basis. In particular, we highlight that higher claim costs in future years are driven by higher inflation assumptions.

Further considerations

- 4.1 This section outlines further considerations that DfE should bear in mind when examining the results in this report.
- 4.2 The insurance market would offer different premium rates to each school based on their risk profile and claims history. The RPA will therefore vary in the amount of value that each school receives from it, which may make it more likely that those schools 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.
- 4.3 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.
- 4.4 A Periodical Payment Order ('PPO') is an alternative way of settling significant personal injury claims. Rather than settling the claim as a lump sum amount, extinguishing any future requirements to compensate the injured party, a PPO requires regular payments to be made to the claimant for the rest of their lives. The RPA is exposed to PPOs through the EL and PL Injury covers and could arise as a result of a claim by a teacher, pupil or other third party who is badly injured as a result of a school's negligence. Our provisioning methodology makes the following allowances for PPOs:
- Should a PPO arise from a known event, or if the claims handler believes there is a non-negligible chance that a PPO will arise, we will work with the claim handler to ensure the provisions appropriately reflect the likely costs.
 - For unexpired and future periods of risk from the EL and PL Injury classes, we make an allowance for attritional, large and catastrophic injuries to occur. Our considerations of what a large and catastrophic claim might cost take into account the potential for PPO claims to be awarded.
- 4.5 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.
- 4.6 Since 1 April 2020 the RPA has provided cover to LAMS in addition to academies. The growing number of LAMS creates an additional source of uncertainty, as the ways in which local authority schools join the RPA may differ to that of academies.
- 4.7 Due to the lack of historical data in relation to LAMS, we currently assume that LAMS and academies pose the same level of risk. As the volume of data for local-authority-maintained schools grows over time, any differences in experience between LAMS and academies will become clearer.

- 4.8 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 earlier sections of this report.
- 4.9 Recently, there have been significant inflationary pressures across the industry and the calculations now allow for a short-term spike in inflation.

Appendices

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 August 2022, split by type of academy (Primary, Secondary, All Through and Special)
 - Actual number of LAMS and pupils in the RPA as at 31 August 2022, split by type of school (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 August 2022 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 13 different provisioning classes:
- Property Damage and Business Interruption
 - Fire
 - Flood
 - Theft
 - Storm
 - Malicious Damage
 - General Damage & Other
 - Cyber
 - Public Liability
 - Injury
 - Property & Other
 - Employers' Liability
 - Injury
 - Dispute & Other
 - Travel
 - Miscellaneous
 - Overseas
- A.6 Each of the 13 provisioning classes is then further divided into attritional, large and catastrophic claim types. This creates 39 provisioning groups.
- A.7 We also divide provisioning groups into Primary and Secondary & Other school types (where Secondary & Other includes Secondary, All Through and Special school types). This creates 78 unique provisioning groups, and this is the level at which outstanding claims provisions are set.
- A.8 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.9 As the RPA has only been operating for a short period of time there is limited claims data in some of these provisioning groups. Where this is the case, there is a lack of statistical credibility which should be borne in mind.

Appendix B: Glossary

- A.10 **Expired exposure** - The exposure corresponding to the expired risk period.
- A.11 **Expired risk period** - The risk period for which, up to a certain date, RPA policies have been in force.
- A.12 **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.13 **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.14 **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.15 **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.16 **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.17 **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.18 **Latent claims** - These are claims of a type that was not anticipated at the time that cover was provided.
- A.19 **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.20 **Peril** - The specific source of loss to the risk pool. Examples include fire, theft and injury.
- A.21 **Personal injury** - Legal term for injury to body, mind or emotions.

- A.22 **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.23 **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.24 **Risk period** - The time for which the expectation is to have RPA policies in force.
- A.25 **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.26 **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.27 **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.28 **Unexpired exposure** - The exposure corresponding to the unexpired risk period.
- A.29 **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.30 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.31 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	2019/20	2020/21	2021/22
RPA member schools	949	2,204	3,699	4,747	5,516	6,460	7,772	9,141
Members who experienced a fire-related event	12	15	36	36	47	40	27	43
Average cost of fire event (£)	£14,280	£243,710	£77,462	£87,227	£74,932	£80,889	£385,765	£299,982

Exhibit 17: Analysis of fire-related events

- A.32 The high average cost of a fire event in 2015/16, 2020/21 and 2021/22 are a result of several larger losses that occurred during these academic years.

Notes on construction

- A.33 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.34 The number of RPA members is measured as the average over the academic year.
- A.35 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.36 The average cost of a fire-related event is taken as the sum of reported fire-related claims divided by the number of non-nil claims in a given academic year.

Appendix D: Analysis of Flood claims

- A.37 The RPA provides property damage and business interruption cover that responds to flood losses. This section provides more information on the RPA's claims experience in relation to these losses.
- A.38 The following table shows the number of individual members in the RPA, the number that have experienced a flood-related event and the average cost of a flood-related event. This information is shown for the historical academic years where flood 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	2019/20	2020/21	2021/22
RPA member schools	949	2,204	3,699	4,747	5,516	6,460	7,772	9,141
Members who experienced a flood-related event	25	66	55	65	15	12	54	28
Average cost of flood event (£)	£12,526	£45,920	£15,495	£27,771	£31,291	£755,766	£222,258	£98,839

Exhibit 18: Analysis of flood-related events

- A.39 The high average cost of flood events in 2019/20 and 2020/21 are a result of several larger losses that occurred during these years.

Notes on construction

- A.40 A flood-related event is one where the claims handler has recorded the main cause of loss to be flood 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 flood has been the cause of other types of loss (for example damage to the property of third parties).
- A.41 This definition also excludes 'escape of water' claims where damage to water pipes (or other similar infrastructure) results in water damage to contents and property.
- A.42 The number of RPA members is measured as the average over the academic year.
- A.43 The number of members who have experienced a flood-related event is calculated as any member that recorded at least one flood 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.44 The average cost of a flood-related event is taken as the sum of reported flood-related claims divided by the number of non-nil claims in a given academic year.