



**Issue 38** 

# Welcome to eNews



**Welcome to eNews!** This is the final edition marking GAD's centenary year. Our last 'deep dive' of the year looks at our work providing investment and modelling advice to the government and other public sector organisations.

As befitting teams of actuaries, we look at 2019 in numbers and see what we've achieved over the past 12 months. Among the successes, GAD advised on the personal injury discount rates for England, Wales and Scotland, our annual report showed we achieved all our financial performance targets during the year, our client feedback survey indicated 99% of people would recommend our services and on top of all this, we arranged several events for public sector colleagues as a way of continuing to engage with our clients and the rest of the actuarial profession.

We find out too about our secondments programme. This scheme is now a core, and significant, part of our offer to our clients with benefits for our people as well.

This edition of eNews sums up what's been a great year for GAD and shows us going from strength to strength. I hope you enjoy reading it as much as I have. Previous editions are available online and you can now also read about topical issues and how the work we do makes a difference at actuaries.blog.gov.uk. Finally, I would like to take this opportunity to wish you a very happy Christmas and New Year holiday!

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Martin Clarke, Government Actuary

# **News from GAD**

# New population projections

The latest 2018-based population projections, published this autumn by the Office for National Statistics, are used by GAD to inform assumptions around our client work. Examples include using the information to model future contribution income and benefit outgoings of the National Insurance Fund.

# GAD on the world stage

Audiences in China heard about the significance and impact of GAD's work at conferences in Beijing and Shanghai. Deputy Government Actuary Colin Wilson was a keynote speaker at 2 global financial events.

#### Digging up the roads

The Government Actuary's Department (GAD) undertook an independent review of methodology used in a report by Ofgem (the Office of Gas and Electricity Markets). GAD provided a quality assurance review of the methodology the regulator planned to use when assessing funding claims from utility companies.

At GAD, we seek to achieve a high standard in all our work. We are accredited under the Institute and Faculty of Actuaries' Quality Assurance Scheme. Our website describes **the standards** we apply.

# eNews from GAD

# Centenary deep dive: GAD's work in modelling and investment

To bring GAD's centenary celebrations to a close, eNews ends a series of 'deep dives' into the key areas in which our actuaries have contributed to public life over the last 100 years. In this article we discuss GAD's more recent role in providing investment and modelling advice to the UK government; both increasingly important areas which complement GAD's more traditional work.

# Attracting super-models

One of the myriad skills that actuaries use to solve problems and think strategically, is the ability to understand mathematical models. This has often placed GAD in a great position to offer a variety of services; supporting others in areas that have become the natural stomping ground of actuaries. While this has been the case for quite some time, the Macpherson review of 2013 detailed best practice in quality assurance. It set out practical advice for departments, to make models robust and trustworthy, resulting in a growth in awareness of the issue. GAD supports a range of clients in each of the various stages of the model lifecycle (below) for many of the numerous business critical models that exist throughout government and the wider business environment.

#### Model assurance

GAD performed a quality assurance exercise on a model created by Ofgem to assess minimum and maximum payments for an infrastructure incentivisation scheme. The purpose of this review was to ensure the model functioned as intended, assessing its compliance with best practice in model design and making recommendations, where this may be helpful.

Interpretation and Decision making

# **Ongoing application**

The Pensions Regulator (TPR) asked GAD to create a model to analyse the universe of defined benefit pension schemes in the UK. The aim was to help inform TPR's decision making by assessing the security of schemes and the impact on member benefits under different assumptions. This will help TPR in offering better general support and advice.

Scope

#### **Bespoke model builds**

GAD was asked to create a suite De of tools for the World Bank, helping developing nations more easily build capacity in, and communicate, risk. The modelling tools were developed incrementally with the result allowing for various perils such as flooding - to be investigated, contingent liabilities to be estimated and cost-effective financing options to be identified and priced more accurately.

Design and Build

The Model

Lifecycle

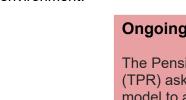
#### When scope evolves

GAD's support on the sale of student loans began as a model review. It evolved into scoping, building and designing a new model to meet the emerging requirements for a loan sale model. The model that was developed in advance of the first sale in December 2018, resulted in a more accurate evaluation of the student loan book.

GAD's work on the student loans sale also used our investments expertise (described on the next page).

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# **Investing in ourselves**

Over the last decade, GAD has expanded its offering to provide advice on investment issues to government. This work initially took the form of traditional investment advice to various pension scheme stakeholders, such as scheme sponsors, trustees and even government departments. It has since

broadened to include more unique projects that wouldn't normally come under the purview of contemporary actuaries (eg Personal Injury Discount Rate, aspects of the student loans sale). Today, we also provide advice to the likes of The Pensions Regulator, which ties in with our modelling work, (mentioned earlier) and the Pension Protection Fund (PPF).

Our work involves the design of bespoke tools, like asset-liability models, allowing for the assessment of the private pensions market, and understanding the stresses that may occur under various economic scenarios. As a result of this growth in investment advice, GAD's advice now indirectly supports many of the millions of private pension holders, as well as those in the public sphere.

# Looking forward

It's an exciting time to be working at GAD, as the modelling and investment work covers a wide range of interesting areas. Looking ahead to future projects, teams are starting to work on other, new and emerging challenges.



### **Case study: Personal Injury Discount Rate**

The Government Actuary is obliged by statute to advise the Lord Chancellor in their review of the Personal Injury Discount Rate. This rate is used to determine lump sum damage awards to claimants, suffering a personal injury. The rate set has wide ranging implications affecting not just claimants and defendants but also the general public via motor and other insurance premium costs.

At the Lord Chancellor's request, the Government Actuary's advice centred on illustrating the investment risk to claimants of having enough funds to meet their future needs. It was based on:

- evidence about types of claimant, how previous damage awards had been invested, level of expenses and tax and claimant costs
- modelling of future claimants' possible returns when investing awards using assumptions informed by this evidence
- analysis of possible outcomes in terms of claimants being compensated for their loss including sensitivity to alternate assumptions
- providing analysis on the risks emerging from this modelling, to assist the Lord Chancellor in deciding on the rate to be introduced

Following the review of GAD's advice, the Lord Chancellor set the rate for England and Wales in August 2019, to CPI minus 0.25% per year. A separate process in Scotland concluded that the rate should remain unchanged at RPI minus 0.75% per year.

GAD's advice regarding the future funding of nuclear decommissioning provides a good example of applying traditional actuarial principles to new challenges. This includes modelling, from the project outset, how the operator of a nuclear plant would need to set aside and invest funds. This is necessary to ensure liabilities stretching over the next 100 years are met when a power plant comes to the end of its useful life.

When it comes to climate change, we've already started to bring our existing skills to bear. GAD has published papers on disaster risk financing, this included considering financial solutions like catastrophe bonds, in addition to more usual options. Modelling the effects of climate change and issuing advice on how investments can be made to support a greener strategy are both areas into which GAD may expand.

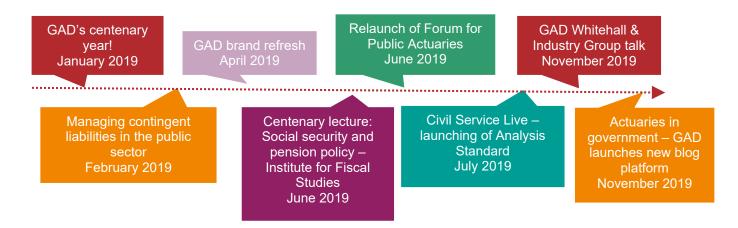
# 2019: A year in review - 100 not out!

The end of 2019 is a chance to reflect on a highly successful 100th year for GAD! We look at how we marked our centenary with articles, speeches, events, stories and blogs throughout the year.

# Print and public speaking

We featured in key publications such as Civil Service Quarterly and The Actuary. Our centenary lecture from the Institute for Fiscal Studies, was delivered almost 100 years to the day that GAD was formed. And the Government Actuary Martin Clarke talked about GAD's first 100 years in a presentation to the Whitehall and Industry Group.

GAD arranged 8 events through the year. We re-launched the Forum for Public Actuaries and held events for actuarial colleagues across the public sector. We also continued our regular updates on LinkedIn, our website and our brand-new blog site, Actuaries in government.

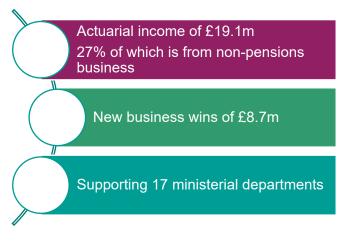


Our achievements of today are only possible as a result of GAD's work since our inception in 1919. During that time, important UK national milestones were also key dates for us. Examples include providing actuarial support to public service pension schemes and to the newly-created NHS (1948) as well as modelling the sale of the student loan debt (2015).

# Financial performance in numbers

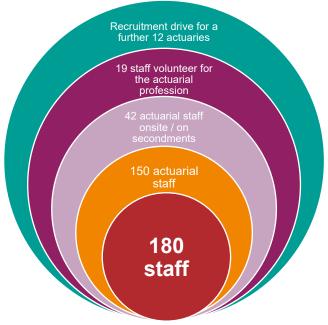
GAD's annual report and accounts 2018 to 2019

provide a snapshot of our financial performance. As always, it's the stories behind those numbers that give a clearer picture. Examples include helping government with advice on alternatives to commercial insurance for academies, completing actuarial valuations of pension funds (helping millions of members) and advising on the personal injury discount rates for Great Britain.





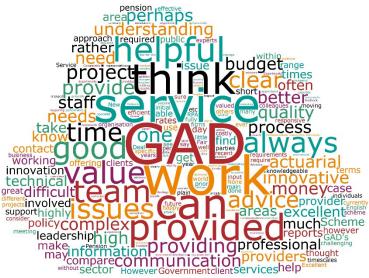
# GAD's people focus



GAD is a small department, but the impact of our complex and far-reaching work means we punch above our weight. Our growing secondments and staff swaps benefit clients and colleagues. The schemes complement the client-based onsite actuaries programme. Meeting the needs of our expanding clientele is important to us, and as a result we're looking to recruit and grow our organisation to meet these demands.

# **Evolving GAD contributions**

Throughout 2019 our series of eNews 'deep dives' took a close look at GAD's contributions over the last 100 years in social security, public service pensions and insurance. This year we've worked with 17 of the 25 ministerial departments and many other organisations. We're evolving and developing out expertise in health, social care and climate change. These complement our existing specialist areas of social security, data science, quality assurance, pensions, risk, modelling and insurance.



Word cloud drawn from GAD client feedback report

#### 2020 vision

So, what's next? Our plans for the future cover some of the wider challenges of our times. These include the importance of big data – how do we make it work for our clients? (Watch this space as we are set to further examine these issues in 2020!)

As actuarial experts, challenges include analysing the needs of an ageing population, as well as measuring and managing risks around climate change. These will all be set against the background of Brexit which will bring its own set of challenges.

However you look at it, GAD can see upcoming demands and looks set to go from strength to strength over the coming year.

# **Secondment stories**

At GAD, we've always been willing to second our people to other public sector organisations, but this has now become a core, and significant, part of our offer which benefits our people and our clients. Our secondments programme is right at the heart of our role as a learning organisation. This article discusses the growth of GAD's secondment programme and celebrates some of our many success stories.

eNews from GAD

# **Supporting GAD's mission**

Our mission is to support effective decision-making and robust reporting within government as the firstchoice provider of actuarial and specialist analysis, advice and assurance. Secondments help us achieve this by:

- developing our people and our organisation
- enriching career experiences
- providing unrivalled expertise to a range of other organisations
- enhancing GAD's profile

# Secondment successes

"Working directly with clients I was able to strengthen GAD's client relationship and identify more opportunities for us to help." (GAD actuary seconded to DHSC) "I gained valuable insights into what clients want from actuaries. The experience and working relationships I developed meant I returned to GAD as a more confident and well-rounded actuary." (GAD actuary seconded to DWP)

Developing our people and helping our clients are the main benefit of the secondment programme.

Head of Business Development Ian Rogers, who leads on the secondment programme has said: "GAD's secondments give clients the chance to more fully understand what actuaries can offer to their projects and proposals. GAD's actuarial talent can really strengthen their own teams!

"We attract and retain staff, because we provide them with a stronger, richer and more diverse working environment. These experiences help our people empathise with the challenges that clients face and help them, therefore, to become more proactive."

# **Partnering with clients**

GAD's core values include partnering with clients and meeting their evolving needs. One of the triumphs of the secondment programme is the way we've used this to develop new ways of liaising with clients to solve their problems; an approach they truly value. Our recent secondment partners have included the Department for Work and Pensions (DWP), UK Government Investments, Ministry of Justice and the Department of Health and Social Care (DHSC) to name just a few.

We are also piloting staff swaps with organisations renowned for their actuarial and analytical acumen. So far these include Deloitte and the Prudential Regulation Authority. These swaps offer a win-win. They help our partner organisations to develop their own people too, and they in turn, help GAD to develop by introducing new ideas.

At GAD, secondments remain a key part of our vision, to ensure we become a single, high-performing team which has enhanced its reputation for efficiency and value for money, and is widely recognised for its development of analytical, actuarial and business skills in its people.

Issue 38 Winter 2019

# **Recent developments**

# Guidance

- The new pensions industry group, set up after publication of the government's Green Finance Strategy, plans to publicly consult on draft guidance in early 2020. The guidance will be for pension trustees on how to integrate, manage and report on climate risks.
- The Information Commissioner's Office (ICO) and The Alan Turing Institute have started a consultation on their co-badged guidance, explaining decisions made with Al. The guidance aims to give organisations practical advice to help explain the processes, services and decisions delivered or assisted by AI, to the individuals affected by them. This blog by ICO gives an overview of the joint consultation and also points to an ICO consultation on their AI Auditing Framework.
- Guidance for tribunals and parties on calculating compensation for pension loss has been updated. The Presidents of the respective Employment Tribunals set out the main changes in the first revision to the fourth edition (first published in August 2017). One of the key changes relates to the Personal Injury Discount Rate (PIDR or Ogden Rate) in England and Wales moving from -0.75% to -0.25% p.a.

# People

• The Money and Pensions Service has set up an independent Pensions Dashboard Industry Delivery Group (IDG). It will lead the delivery of the initial phase of the pensions dashboards programme. These will help people get easy access to information about their pensions. As part of this work, the IDG is looking for people to join its working groups.

# Money

- The Consumer Prices Index (CPI) rose by 1.7% in the year to September 2019. The September figure is used in the uprating of several benefits, including elements of the indexation and revaluation of public service pensions and State Pension indexation under the 'triple lock'. The basic and new State Pensions will increase by 3.9% from April 2020.
- The Pensions and Lifetime Savings Association (PLSA) has launched new UK Retirement Living Standards, to help people picture their future retirement and work out what that might cost. There are 3 levels, based on a range of goods and services, from food and drink to holidays with separate "rules of thumb" for individuals and couples.

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