Mercer

Department of Finance

Federal Circuit Court Judges Death and Disability Scheme Long Term Cost Report 2020

A Report on the Long Term Cost of the Federal Circuit Court Judges Death and Disability Scheme

24 June 2021

Prepared by Mercer Consulting (Australia) Pty Ltd

welcome to brighter

Contents

1

Executive Summary

We are pleased to present this report on the actuarial investigation of the long term cost of the Federal Circuit Court Judges Death and Disability Scheme (the Scheme or FCCJDDS), prepared at the request of the Department of Finance. This report has been carried out based on membership data as at 30 June 2020.

Previous Long Term Cost Report

The previous actuarial investigation into the long term cost of the Scheme was undertaken as at 30 June 2017 by Esther Conway on behalf of Mercer Consulting (Australia) Pty Limited. The outcomes of that investigation are outlined in our report entitled *Federal Circuit Court Judges Death and Disability Scheme Long Term Cost Report 2017*, dated 25 June 2018 (2017 LTCR).

Purpose of the Report

This report estimates the long term cost of providing superannuation benefits to members of the Scheme. The Scheme's cost has been estimated in three ways:

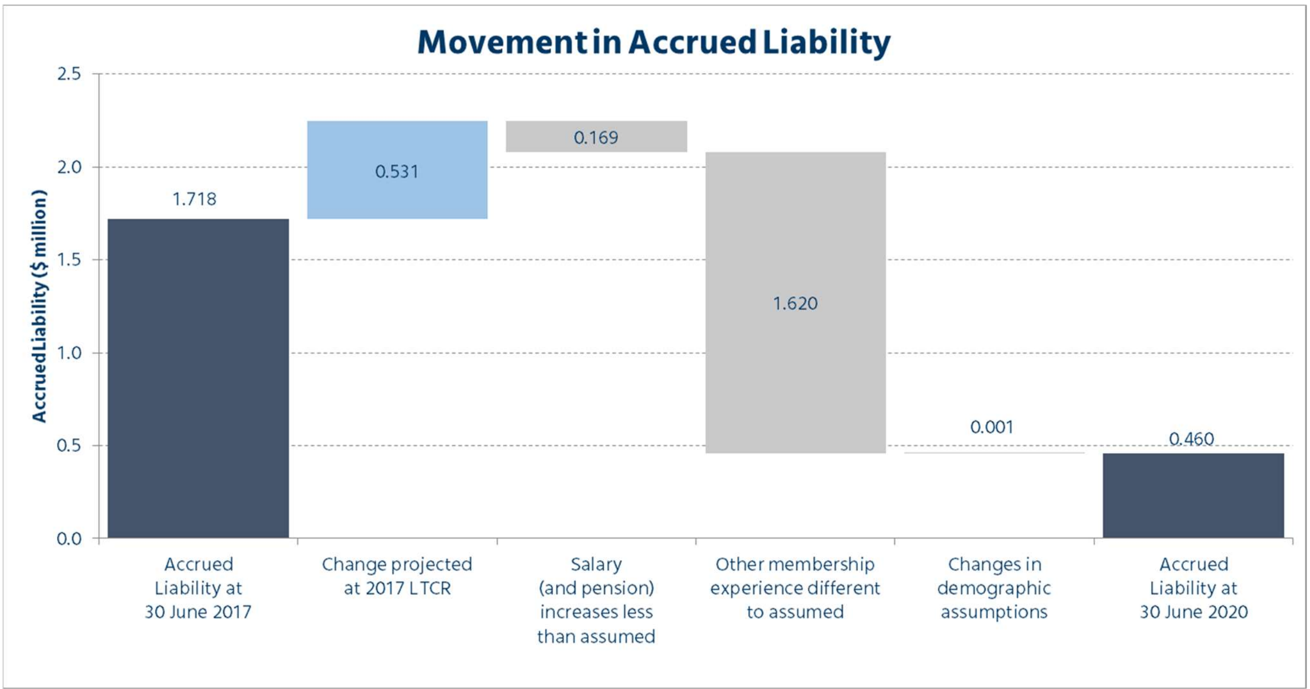
- accrued liability as at 30 June 2020;
- projected annual outlays; and
- projected future premium costs.

Accrued Liability

The accrued liability represents an estimate of the present value of the benefit entitlements currently in payment. The accrued liability of the Scheme at 30 June 2020 was $0.460 million. This compares with the accrued liability calculated as at 30 June 2017 of $1.718 million.

The accrued liability was expected to increase during the investigation period as liabilities in respect of new invalidity benefits and notional interest on accrued liabilities were expected to more than outweigh the reduction in liabilities as a result of benefit payments during the period.

The 2017 LTCR projected that the accrued liability would be $2.249 million as at 30 June 2020, $1.789 million more than the current estimate. The factors contributing to the change in the accrued liability are quantified in the following chart:



The most significant item is the membership experience: in particular there were no invalidity retirements during the investigation period, compared with approximately one expected invalidity retirement (based on the assumptions adopted for the 2017 LTCR).

Further details are provided in Section 5.

Projected Outlays

The projected outlays of the Scheme for the next three years are as follows:

Year Ending 30 June	Nominal Outlays ($'000s)
2021	1,155*
2022	239
2023	345

* Two invalidity pensions in payment in 2021, which will have ceased by the end of 2021.

Further detail regarding the projected outlays is contained in Section 6.

Projected Premium Costs

Premium costs represent the estimated amount an insurance company would require each year in order to cover the claims that could arise in that year. Premium costs in the next 40 years are estimated to range between 2.8% and 3.2% of total annual salaries.

Further details are provided in Section 7.

2 Scheme Information

The *Federal Circuit Court of Australia Act 1999* (the Act) was amended with effect from September 2007 to provide for lump sum death benefits and invalidity pensions for Judges of the Federal Circuit Court of Australia and a small number of other individuals. A summary of the benefits provided under the Scheme is set out in Appendix A.

The Scheme is open to new members. It is assumed that each member who leaves the Scheme is replaced with a new entrant.

Members do not contribute to the Scheme and the Australian Government meets all of the costs of benefits from Consolidated Revenue as they become due. This is an acceptable method of funding as the Scheme is effectively guaranteed by the Australian Government.

The Scheme is untaxed, although individuals may be required to pay additional tax as a result of their membership of the Scheme. The Scheme is an exempt public sector superannuation scheme under the *Superannuation Industry (Supervision) Act 1993*.

There have been a number of amendments to the Act since the 2017 LTCR as noted below, but these have not had a material impact on the value of the accrued liability or projected outlays:

- The amended legal definition of marriage within the new *Marriage Amendment (Definition and Religious Freedoms) Act 2017* was recognised on 9 December 2017.
- The Act was amended by the *Public Sector Superannuation Legislation Amendment Act* 2018 to address matters relating to increase the age for an eligible child from 16 to 18 years.
- References in the Act to the *Family Law Act 1975* were updated via *the Civil Law and Justice Legislation Amendment Act 2018*.

Details of the benefits of the Scheme are set out in Appendix A.

3 Membership and Data

This report has been based on data supplied by the Department of Finance which carries out the administration of the Scheme.

We have conducted a range of validity data checks including internal consistency and general reasonableness, and a reconciliation of membership movements, but we have not verified or audited any of the information provided. However, we are satisfied that the data is sufficiently accurate for the purpose of this report. The Scheme's administrator is ultimately responsible for the validity, accuracy and comprehensiveness of this information.

The membership of the Scheme as at 30 June 2020 is summarised below:

Serving Judges	Headcount	Average Age	Annual Salaries
Males	40	60.1	$15,799,200
Females	27	58.9	$10,664,460
Total	**67**	**59.6**	**$26,463,660**

In addition, two retired Judges were each in receipt of an invalidity pension.

Since 30 June 2020, one serving Judge has died. We have made an approximate allowance for this death in projecting the outlays for the 2020/21 financial year.

Also since 30 June 2020, we have become aware of one additional serving Judge who would be eligible for benefits from the Scheme in the event of death or invalidity but who was not included in the membership data used for this report. The inclusion of this Judge would have no impact on the accrued liability as at 30 June 2020 but would result in a small increase in the projected future costs disclosed in Sections 6 and 7. We estimate that the impact would be less than 2.5% of the relevant dollar amounts and thus would not be considered material for most purposes.

4 Assumptions

In order to value the liabilities, it is necessary to make assumptions regarding the incidence, timing and amount of future benefits. These assumptions fall into two broad categories:

- economic assumptions: relating to the general economic environment and not directly to the membership of the Scheme; and
- demographic assumptions: relating to the experience of the membership of the Scheme.

This section sets out the assumptions used in this report and highlights any changes from those used for the 2017 LTCR. The assumptions are detailed in Appendix C.

The changes in demographic assumptions have increased the projected outlays by 3% - 4% in the longer term, primarily due to an update to the rates of invalidity retirement. Expressed as a percentage of salaries, premium costs have also increased by 3% - 4% in the longer term due to changes in assumptions.

The changes in assumptions have minimal impact on the accrued liability, as this relates only to invalidity pensions which are currently in payment and have a relatively short duration.

Economic Assumptions

Key Economic Assumptions

The key economic assumptions include:

- future increases in salaries, which also determines the level of pension increases; and
- a discount rate.

The relationships between the assumptions adopted for these factors have a greater bearing on the long term cost estimates of the Scheme than do the individual assumptions. This is due to the effect of one assumption being used to project the liability into the future (future pension and salary increases) and the other assumption being used to discount that liability to current day values (discount rate).

For the purpose of this LTCR we have not adopted different economic assumptions for the short term and long term. Use of short term assumptions may be appropriate for other purposes.

The key long term economic assumptions remain unchanged from the 2017 LTCR and are set out in the table below:

Assumption as at	30 June 2020	30 June 2017
Salary and pension increases	4.0% per annum	4.0% per annum
Discount rate	5.0% per annum	5.0% per annum

Salary and Pension Increases

The assumed rate for long term future salary and pension increases has been determined having regard to the average expected long term outlook for national wage inflation.

Discount Rate

The discount rate is used to calculate the present value of projected future benefit payments and provide a summary measure of those cash flows. The accrued liability represents the present value of the estimated future benefit payments in respect of service already rendered. In isolation, a lower discount rate leads to a higher estimate of the accrued liability, and vice versa.

The present value does not change the ultimate benefit payments, as these are dictated by actual experience, but does however provide a manageable way to assess and compare the value of expected future cash flows, expressed in today's dollars.

The discount rate assumption is the same as that used for the PSS and CSS Long Term Cost Report 2020.

Demographic Assumptions

As the Scheme is relatively small the demographic assumptions are, for the most part, based on the assumptions adopted for the 2020 Judges' Pensions Scheme Long Term Cost Report.

An analysis of recent experience compared with the previous assumptions is set out in Appendix B. Details of the updated demographic assumptions are set out in Appendix C.

Retirement

Assumed rates of retirement are unchanged from the 2017 LTCR.

Invalidity

Rates of invalidity retirement are assumed to be the same as those used in the 2020 PSS and CSS Long Term Cost Report, extended to age 70. The invalidity rates below age 65 have been increased since the 2017 LTCR based on PSS and CSS experience. The invalidity rates from age 65 to 70 have been increased in proportion to the increase in PSS and CSS rates at age 64.

Death

Rates of death are assumed to be the same as the mortality assumptions used in the 2020 PSS and CSS Long Term Cost Report. These rates have been updated since the 2017 LTCR based on PSS and CSS experience.

Spouse Assumptions

The assumed proportions of members at each age with a spouse have been updated in line with the proportions adopted for the 2020 Judges’ Scheme Long Term Cost Report.

Future New Entrants

Each departing Judge is assumed to be replaced by a new entrant. The assumed distribution and characteristics of new entrants has been updated to reflect the experience of the Scheme over the last six years. The recent experience is that members joining the Federal Circuit Court are older than previously assumed.

5 Accrued Liability

The accrued liability represents the discounted present value of the benefit payments currently in payment. The present value represents the amount which would need to be set aside at the valuation date to provide for these benefits at the time they are payable, assuming the valuation assumptions were borne out in practice.

It should be noted that the above measure of accrued liabilities does not include any amount for currently serving Judges. This is consistent with the "insurance premium" approach adopted at the 2017 LTCR and the approach adopted in the Australian Government financial statements.

Valuation Methodology

The valuation method for the liability in respect of currently serving Judges is consistent with an "insurance premium" approach. The cost of providing benefits in any given period is calculated as the expected value of all benefits payable in relation to deaths and invalidities occurring in that period. An insurance company would require this amount (plus a margin to allow for administrative expenses and profit) as the premium to cover claims that could arise in that year, and would then be responsible for any claims that actually arise.

In our view, the "insurance premium"' approach is an appropriate method of allocating the expected costs associated with this Scheme between different periods. The same methodology was used for the 2017 LTCR.

However, we note that it is different to the standard approach for allocating the cost of death and invalidity benefits of the other Australian Government defined benefit superannuation schemes. Under the standard approach, it is assumed the potential future death and invalidity benefits are accrued uniformly over the period of service to the expected date of death or invalidity. This standard method then evaluates, for each member, expected future benefit payments for each future year multiplied by the probability that the benefit will be payable in that year. The accrued liability would be determined as the part of the total benefit which has accrued to the valuation date – that is, the benefit that would be payable at each future date if the benefit were calculated by reference to service to the valuation date only. The present value of the accrued liability is determined by discounting these expected payments back to the valuation date.

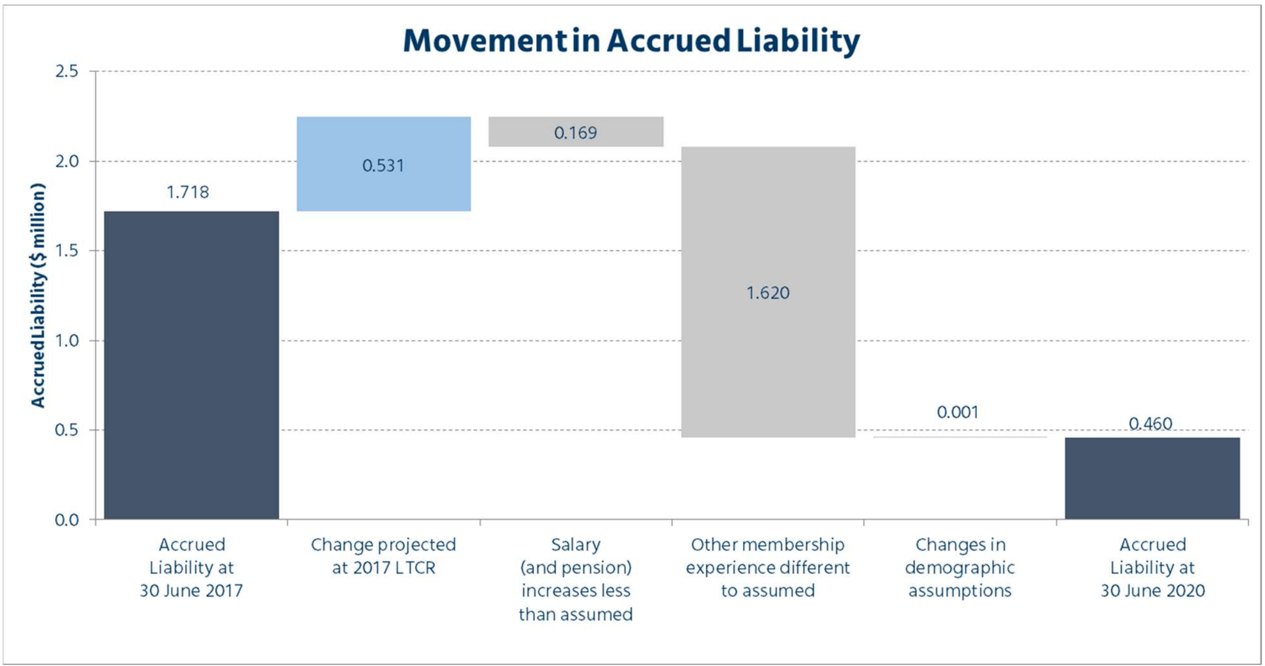
The use of the standard method would result in a greater accrued liability as it would include an amount in respect of currently serving Judges.

Results

The total accrued liability of the Scheme at 30 June 2020 was $0.460 million.

Analysis of Change Compared with Previous Report

The 2017 LTCR projected that the accrued liability would be $2.249 million as at 30 June 2020, $1.789 million more than the current estimate. The factors contributing to the change in the accrued liability are quantified in the following chart:



The most significant item is the membership experience: in particular there were no invalidity retirements during the investigation period, compared with approximately 1 expected invalidity retirements (based on the assumptions adopted for the 2017 LTCR).

6 Projected Outlays

The projected outlays represent the future cost of Scheme benefits paid each year. The expected nominal outlays each year for the next 40 years are below.

Year Ending 30 June	Nominal Outlays ($'000s)
2021	1,155*
2022	239
2023	345
2024	460
2025	573
2026	706
2027	828
2028	886
2029	957
2030	976
2031	1,041
2032	1,120
2033	1,180
2034	1,267
2035	1,242
2036	1,196
2037	1,227
2038	1,354
2039	1,432
2040	1,617

Year Ending 30 June	Nominal Outlays ($'000s)
2041	1,562
2042	1,576
2043	1,733
2044	1,818
2045	1,991
2046	1,978
2047	2,010
2048	2,132
2049	2,272
2050	2,409
2051	2,424
2052	2,535
2053	2,611
2054	2,767
2055	2,754
2056	2,920
2057	2,948
2058	3,016
2059	3,192
2060	3,289

* Two invalidity pensions in payment in 2021, which will have ceased by the end of 2021.

7

Projected Premium Costs

The projected premium costs represent the estimated amount an insurance company would require each year in order to cover the claims that could arise in that year (excluding any administrative expenses or profit margins). The costs are also shown as a percentage of projected annual salaries.

Year Ending 30 June	Premium Costs ($'000s)	Premium Costs (% of Salary)
2021	774	3.2%
2022	823	3.2%
2023	849	3.2%
2024	871	3.1%
2025	879	3.1%
2026	904	3.0%
2027	892	2.9%
2028	905	2.9%
2029	936	2.9%
2030	970	2.9%
2031	1,010	2.8%
2032	1,039	2.8%
2033	1,074	2.8%
2034	1,113	2.8%
2035	1,158	2.9%
2036	1,250	2.9%
2037	1,332	2.9%
2038	1,399	2.9%
2039	1,422	2.9%
2040	1,483	2.9%
2041	1,517	2.9%
2042	1,603	2.9%
2043	1,668	2.9%
2044	1,732	2.9%
2045	1,804	2.9%
2046	1,846	2.9%
2047	1,947	2.9%
2048	2,018	2.9%
2049	2,095	2.9%
2050	2,142	2.8%
2051	2,210	2.9%
2052	2,324	2.9%
2053	2,405	2.8%
2054	2,501	2.8%
2055	2,610	2.9%
2056	2,743	2.9%
2057	2,878	2.9%
2058	3,029	2.9%
2059	3,195	2.9%
2060	3,317	3.0%

8

Sensitivity Analysis

For this Scheme, the most significant assumptions are the assumed rates of invalidity. These assumptions are also subject to a high degree of uncertainty, particularly at older ages where there is little comparable experience from similar schemes.

To provide an indication of the sensitivity to variation in invalidity rates, we have measured the effect on the projected outlays and premium costs of varying the invalidity assumption whilst keeping all other assumptions unchanged. The base assumptions have been altered using a multiple of 1.3 for serving Judges under age 60, increasing to a multiple of 5 times the base assumptions at age 69, as per the 2017 LTCR.

Period Ending 30 June	Change in Nominal Outlays ($'000s)		Change in Premium Costs ($'000s)	
	Base case assumptions	Alternative invalidity assumptions	Base case assumptions	Alternative invalidity assumptions
2021	1,155	+148	774	+662
2022	239	+314	823	+770
2023	345	+464	849	+878
2024	460	+652	871	+1,024
2025	573	+849	879	+1,133
2026 - 2030	4,353	+6,237	4,607	+6,118
2031 - 2035	5,850	+7,618	5,394	+6,765
2036 - 2040	6,826	+7,919	6,886	+7,589
2041 - 2045	8,680	+8,665	8,324	+9,291
2046 - 2050	10,801	+12,697	10,048	+11,933
2051 - 2055	13,091	+14,891	12,050	+14,102
2056 - 2060	15,365	+17,675	15,162	+16,885

Please note that the alternative results shown above are illustrations only, and show what may occur under assumed future experiences which differ from our baseline assumptions. These scenarios do not, in any way, constitute upper or lower bounds and the results may differ significantly from the ranges shown above, depending on actual future experience.

Sensitivity to Salary and Pension Increases

The projected outlays and premiums costs in the Scheme are also subject to variation with the salary and pension increase assumption. Whilst the salary and pension increase assumption have a direct impact on the monetary value of the projected outlays and premium costs, they have very little impact on premium costs expressed as a percentage of salaries.

Post valuation date events

Economic activity and the future outlook have been particularly volatile over the last 12-18 months due to the COVID-19 pandemic. Whilst this can have an impact on short term outcomes the purpose of this report is to focus on the longer term position in relation to the Scheme, and to enable comparison with the longer term position at the previous valuation date. Given the success of the development of vaccines and the return to economic growth we believe the longer term assumptions as set out in Section 4 remain appropriate for this purpose.

We note that the expectation in the short term is for general salary increases to be below the longer term rate. The main impact of this would be that nominal outlays would be lower than those presented in this report, particularly in the short term.

Over the long term there will be periods where actual experience is either above or below the long term average assumed. We do not believe the short term expectations are outside the normal range of variation and so will not materially impact the longer term projections.

The sensitivities above are intended to demonstrate the potential impacts should rates remain above or below the assumed levels in the longer term.

9 Actuary's Certification

Professional standards and scope

This report satisfies the requirements of Professional Standard No. 400 of the Institute of Actuaries of Australia. Professional Standard No. 400 relates to the preparation of reports commenting on the financial condition of defined benefit superannuation funds.

Use of report

This investigation report should not be relied upon for any other purpose or by any party other than the Australian Government. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts.

The advice contained in this report is given in the context of Australian law and practice. No allowance has been made for taxation, accountancy or other requirements in any other country.

Actuarial Uncertainty and Assumptions

An actuarial investigation provides a snapshot of a scheme's financial condition at a particular point in time, and projections of a scheme's estimated future financial position based on certain assumptions. It does not provide certainty in relation to a scheme's future financial condition or its ability to pay benefits in the future.

Future funding and actual costs relating to a scheme are primarily driven by the scheme's benefit design, the actual rate of salary inflation and any discretions exercised by the Australian Government. The scheme's actuary does not directly control or influence any of these factors in the context of an actuarial investigation.

A scheme's future financial position and the estimated long term cost depend on a number of factors, including the amount of benefits the scheme pays, the cause and timing of member withdrawals, scheme expenses, the level of taxation and the amount earned on any assets invested to pay the benefits. These amounts and others are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions, as described in Section 4 and Appendix C, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report.

However, the future is uncertain and a scheme's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. For this reason this report also shows the impact on the results of certain changes in assumptions.

Actuarial assumptions may also be changed from one valuation to the next because of mandated requirements, scheme experience, changes in expectations about the future and other factors. We did not perform, and thus do not present, an analysis of the potential range of future possibilities and scenarios.

Because actual scheme experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a set of results.

Prepared by:

Esther Conway
Fellow of the Institute of Actuaries of Australia
Principal

Peer Reviewed by:

Guy Holley
Fellow of the Institute of Actuaries of Australia
Principal

24 June 2021

Appendix A
Summary of Benefits

This report covers liabilities relating to members of the Scheme. Provisions relating to the Scheme are set down in the *Federal Circuit Court of Australia Act 1999*. The provisions of the Scheme are complex and a **summary** of the principal provisions is set out below. It should not be used to calculate benefits for individuals.

Member Contributions

Members are not required to contribute to the Scheme. The Australian Government meets the whole cost of the Scheme.

Invalidity Benefit

The benefit payable for a Judge who is certified by the Finance Minister as having retired on the grounds of invalidity, is a pension until the earlier of age 70 or death. The annual pension amount is 60% of the salary currently paid in respect of an equivalent appointment to that of the Judge at the time of invalidity.

Pensioners also receive employer superannuation contributions of 15.4% of their base salary until the age of 65.

Death Benefit

A death benefit payable in respect of a serving Judge if they die before 65. The death benefit is a lump sum equal to the amount of the employer superannuation contributions (at 15.4% of salary) that the Judge would have been entitled to had they not died, in respect of the period from date of death up to age 65. This benefit is also payable in respect of a Judge in receipt of an invalidity pension, if they die before age 65.

Appendix B
Experience of the Scheme

Reconciliation of Membership

	Serving Judges	Invalidity Pensioners
As at 30/06/2017	**64**	**2**
New Members	16	-
Appointed to different Court	-9	-
Resignation	-3	-
Age Retirement	-1	-
Invalidity Retirement	-	-
Death	-	-
As at 30 June 2020	**67**	**2**

Salary and Pension Increases

The death and invalidity benefits for a former Judge are based on the salary the Judge would have been entitled to if they had not died or become disabled. At 30 June 2020, the full time office base salary was $394,980. The Remuneration Tribunal's determination 2020 provided for no salary increase effective 1 July 2020. Our results incorporate this pay freeze. The average increase over the three years since the 2017 LTCR was 1.3% per annum, which is lower than the 4% per annum increase previously assumed.

Resignation/Retirement Rates

The number of Judges leaving the Scheme due to age retirement or resignation was 4, nine Judges left the Scheme by transferring to other Courts. This is higher than the 3.9 Judges expected to leave the Scheme.

The number of Judges leaving the Scheme due resignation prior to age 69 was 4 compared with 4 expected (and 7 during the previous review period). Given the small size of the Scheme, we would expect to see significant variations in the number of resignations between different periods.

Invalidity Retirement

No Judges retired through invalidity during the period compared with 1.06 assumed.

Mortality

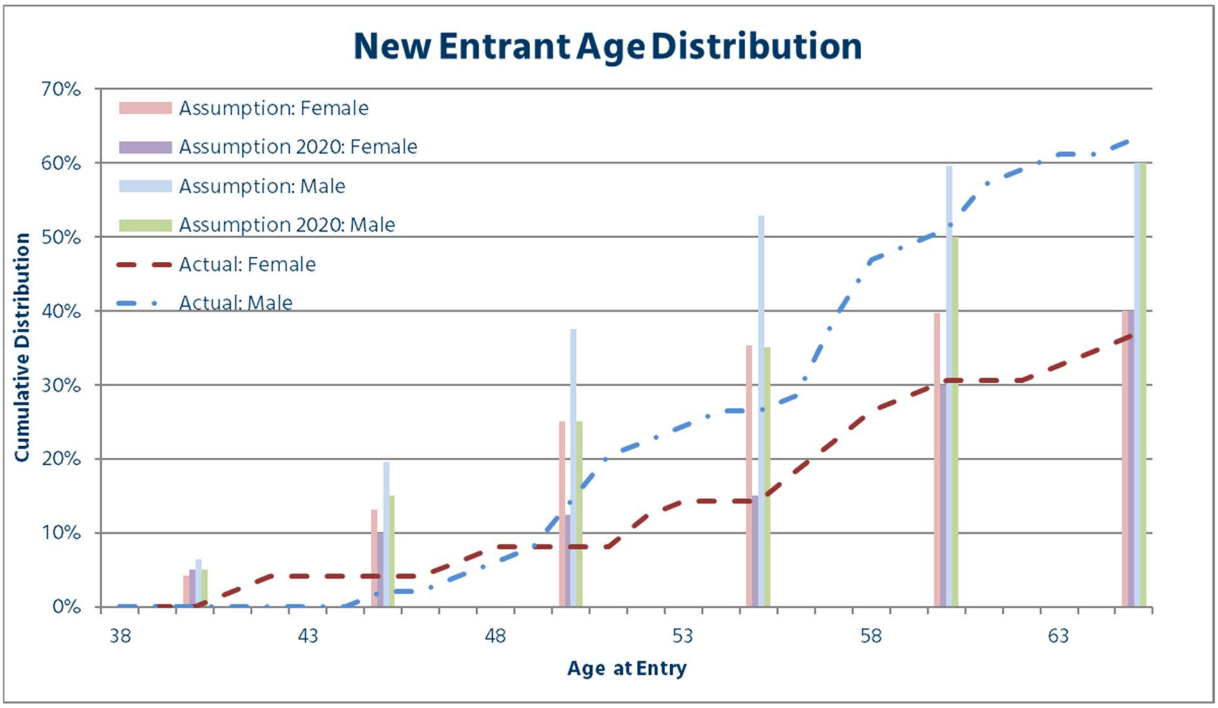
No Judges died in service during the review period compared with 0.35 assumed.

Pensioner Mortality and Marital Status

The number of pensioners is too small to conduct any meaningful analysis of pensioner mortality or marital status.

New Entrant Age distribution

The age at which the current cohort of Judges joined the Scheme has been analysed, as can be seen in the graph below. The age and gender distribution of new entrants assumption has been amended to better fit with the experience of the scheme.



Appendix C

Details of Actuarial Assumptions

Economic Assumptions

The key long-term economic assumptions adopted are shown in the table below:

Assumption (per annum)	
Salary and pension increases	4.0%
Discount rate	5.0%

Taxation

In determining the projected outlays, no adjustment is made for any tax payable by members on receipt of a benefit.

Demographic Assumptions

Resignation/Retirement Rates

Age	Resignation/ Retirement
<60	0.5%
60	1.0%
61	1.5%
62	2.0%
63	2.5%
64	3.0%
65	5.0%
66	7.5%
67	10.0%
68	15.0%
69	20.0%
70	100.0%

Death and Invalidity Retirement Rates

Age	Death		Invalidity	
	Male	Female	Male	Female
50	0.088%	0.060%	0.213%	0.268%
55	0.124%	0.097%	0.336%	0.447%
60	0.183%	0.166%	0.625%	0.646%
65	0.274%	0.249%	0.732%	0.894%
66	0.298%	0.271%	0.744%	0.943%
67	0.323%	0.294%	0.755%	0.991%
68	0.350%	0.318%	0.767%	1.041%
69	0.379%	0.345%	0.778%	1.090%
70	0.411%	0.374%	-	-

Invalidity Pensioner Mortality Rates

Age	Male	Female
50	0.51%	0.32%
55	0.75%	0.46%
60	1.12%	0.65%
65	1.63%	0.98%

Proportion Married

Age	Male	Female
45	92.50%	93.00%
50	92.50%	90.50%
55	92.50%	87.00%
60	92.50%	83.50%
70	92.50%	75.50%

The above rates include allowance for same sex marriages.

Future New Entrants

Each Judge exiting the Scheme is assumed to be replaced by a new entrant. The ages at which new entrants join are assumed based on the following distribution:

Age	2017		2020	
	Male	Female	Male	Female
40	6.4%	4.3%	5.0%	5.0%
45	13.2%	8.8%	10.0%	5.0%
50	18.0%	12.0%	10.0%	2.5%
55	15.3%	10.2%	10.0%	2.5%
60	6.7%	4.5%	15.0%	15.0%
65	0.4%	0.2%	10.0%	10.0%
Total	**60.0%**	**40.0%**	**60.0%**	**40.0%**

Mercer Consulting (Australia) Pty Ltd
ABN 55 153 168 140
AFS Licence # 411770
Collins Square, 727 Collins Street
Melbourne VIC Australia 3008
GPO Box 9946 Melbourne VIC 3001
www.mercer.com.au