

Australian Government

# THE JUDGES PENSION SCHEME LONG TERM COST REPORT 2014

A report on the long term costs arising under the Judges Pension Act 1968, prepared by the Australian Government Actuary using data as at 30 June 2014



GOVERNANCE AND RESOURCE MANAGEMENT GROUP



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### Australian Government

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# 1. Summary

- **1.1** This report sets out estimates of the long term costs arising under the Judges' Pension Scheme (the Scheme). This is the sixth long term cost report prepared by the Australian Government Actuary.
- **1.2** This report has been prepared based on data as at 30 June 2014. The previous review using data as at 30 June 2011 was also carried out by me with the results being presented in my report dated 21 June 2012 (the 2011 Report).

### **Notional Employer Contribution Rate and Accrued Liability**

**1.3** The notional employer contribution rate (NECR) is the contribution rate expressed as a percentage of superannuation salaries that would be payable if the Scheme was fully funded by the Commonwealth. The accrued liability represents the present value of pensions payable to current pensioners as well as the present value of benefits accrued for serving judges in respect of judicial service up to the valuation date under the Scheme. For serving judges benefits are assumed to accrue uniformly over the period of service to the date of exit. The following table summarises NECRs and accrued liabilities from the 2011 Report and this Report.

### Table 1.1 Notional Employer Contribution Rates and Accrued Liabilities

	30 June 2011 Report	30 June 2014 Report
Notional Employer Contribution Rate	68.9%	76.1%
Accrued Liability (\$m)	782	857

- **1.4** The increase in the notional employer contribution rate results from some small changes to the demographic assumptions, continuing improvements in pensioner mortality over the three years and a different serving membership profile.
- **1.5** The accrued liability as at 30 June 2014 of \$857 million is lower than the figure projected in the 2011 Report of \$884 million. The main reason for this is that superannuation salaries over the period only increased by an average of 1.8% per annum compared to the 4.0% per annum assumed.

### **Projected Accrued Liabilities and Cash Outlays**

**1.6** The projections in section 9 of this report indicate that projected liabilities and cash outlays in terms of Gross Domestic Product (GDP) are likely to gradually reduce over time. The main reason for this is that the projections assume that the number of serving judges as a percentage of the Australian population declines over time.

# 2. Introduction

- 2.1 This report has been prepared within the Office of the Australian Government Actuary at the request of the Department of Finance. It sets out estimates of the long term costs arising under the Judges' Pension Scheme (the Scheme). The estimates are based on an examination of scheme data supplied by the Department of Finance and data supplied by the Fair Work Commission.
- **2.2** Three estimates of long term costs on a best estimate accrual basis are provided:
  - notional employer contribution rate

This is the total Commonwealth contribution rate that would be required to maintain the Scheme in a fully funded position in three years' time if it were fully funded as at 30 June 2014 and the assumptions made were borne out in practice. It represents the gross employment cost that arises from the Scheme and has been expressed as a percentage of salaries.

• projection of actual employer costs

This is a projection of the actual cash outlays payable annually by the Commonwealth under the Scheme. The expenditure has been projected over the next 41 years and expressed as a percentage of gross domestic product (GDP).

• net present value of accrued liabilities

This indicates the total level of the accrued Commonwealth unfunded liability under the Scheme for superannuation benefits in respect of service up to 30 June 2014.

- **2.3** The notional employer contribution rate and the net present value of accrued liabilities have been calculated on a best estimate accrual basis. The best estimate accrual basis assumes that serving judges accrue benefits uniformly over the period of service to the projected date of exit and is the same approach as was used for the previous Long Term Cost Report.
- **2.4** As with other Commonwealth sponsored schemes, the notional employer contribution rate and the net present value of accrued liabilities have also been calculated using the AASB 119 accrual basis. For serving judges, under the AASB 119 accrual approach, benefits are assumed to accrue uniformly over the period of service to when a judge first becomes eligible for a retirement pension rather than the projected date from which the pension is expected to be paid. The AASB 119 accrual approach assumes a faster accrual of benefits compared to the best estimate accrual basis and results in a higher accrued liability for serving judges. I regard the AASB 119 accrual

approach as being conservative in the context of the Scheme. It produces a higher unfunded liability value compared to the best estimate accrual basis.

2.5 I believe that this report complies with the Institute of Actuaries of Australia Professional Standard 400 (PS400) (Investigations of Defined Benefit Superannuation Funds) allowing for the fact that the Judges' Pension Scheme is unfunded and has an underlying Commonwealth government guarantee. For reference, PS400 is primarily designed to cover funded (private sector) superannuation schemes where actual contributions paid into the scheme and solvency matters are important.

# 3. The Judges' Pension Scheme

- **3.1** The legislation covering the Judges' Pension Scheme is the Judges' Pensions Act 1968. The Judges' Pension Scheme covers the following office holders:
  - Justices of High Court;

• Judges of the Federal Court (other than the Federal Circuit Court of Australia or the Australian Military Court);

• Justices of the Family Court (including the Family Court of Western Australia);

• Persons who, under an Act, have the same status of Justice ,or a Judge; and

• Judges of the Australian Capital Territory Supreme Court appointed before self-government.

- **3.2** Throughout the remainder of this report judges and justices are referred to as judges.
- **3.3** In the past, eligibility for membership of the Judges' Pension Scheme (the Scheme) was wider and included individuals from the Fair Work Commission's antecedents, the Administrative Appeals Tribunal (AAT) and Solicitors-General. The President of the AAT is always a serving Federal Court judge under the legislation covering the AAT but no other individuals from the AAT are currently serving judges for the purposes of the Scheme. The President of the Fair Work Commission (FWC) would normally be covered by the Scheme but other new FWC appointments are no longer eligible to be covered by the Scheme. There are a number of other serving individuals in the FWC who are covered by the Scheme under grandfathered arrangements. New Solicitors-General are no longer eligibile for membership of the Scheme.
- **3.4** The Scheme is unfunded and no assets are held. The Scheme has no external insurance arrangements. Benefits are financed from the Consolidated Revenue Fund as they become due for payment. Given the underlying Commonwealth guarantee of payment of benefits, this is a reasonable means of providing the benefits.
- **3.5** Members do not contribute to the Scheme and the Commonwealth meets all of the costs of benefits except for one retired Judge of the ACT Supreme Court where the ACT Government funds 80% of his benefits.
- **3.6** The Scheme is untaxed and no tax is levied on employer contributions. The Scheme is an exempt public sector superannuation scheme under the *Superannuation Industry (Supervision) Act 1993*.

- **3.7** Details of benefits payable under the Scheme are set out in Appendix A. The main benefit is a retirement pension of 60% of the salary payable to the equivalent level judge. To qualify for this pension a judge must have:
  - served at least ten years; and
  - attained at least age 60 before retiring.
- **3.8** Judges have a compulsory retirement age of 70 except for the FWC where it is age 65.

### Legislation changes (1 July 2011 to 30 June 2014)

- **3.9** The Scheme was amended with effect from 15 March 2013 to provide a new approach for dealing with the splitting of superannuation on relationship breakdown under the Family Law regime. This allows for the former spouse of a member to become entitled to their own superannuation benefit under the Act. Before the change, the Scheme operated on a "percentage only" basis where the non-member spouse received a percentage of the member spouse's pension while the member spouse was receiving pension payments. As a result of this change benefits payable to non-member spouses are independent of the pensions payable to their former spouses.
- **3.10** There are also transitional arrangements under the new 'clean break' Family Law regime for those that had pre-existing percentage only Family Law splits. Under these transitional arrangements, if the non-member spouse pre-deceases the member spouse then the member spouse's pension reverts to the full pension. Also, if the member spouse remarries, then the pension payable to any surviving reversionary spouse following the member spouse's death is paid at the full rate assuming that there had not been a Family Law split. There were only two Judges or former Judges covered by the transitional arrangements. These transitional arrangements have marginally increased the costs of the Judges' Pension Scheme.
- **3.11** Over the three inter-valuation years, the Superannuation Guarantee (SG) rate that applies in the calculation of the lump sum benefit payable when no pension benefit is payable from the Judges' Pension Scheme increased from 9.0% at 1 July 2011 to 9.25% at 1 July 2013 and to 9.5% at 1 July 2014. The SG rate is scheduled to remain at 9.5% for 7 years, increasing to 10% from July 2021, and eventually to 12% from July 2025. As the SG lump sum has a value very much less than value of a pension payable from the Scheme and it is very rare for a member to leave voluntarily without being eligible for a pension, the cost impact associated with these historic and scheduled future changes is immaterial in an overall Scheme context.

# 4. Data and Membership

### **Data Validation**

- **4.1** This report has been based on data primarily supplied by the Department of Finance and the Fair Work Commission which carry out the administration of the Scheme.
- **4.2** Data validation was done in two main ways. The first was a reconciliation of the data from the Long Term Cost Report as at 30 June 2011. This involved accounting for all members valued as at 30 June 2011 by establishing that they were still members of the Scheme as at 30 June 2014 or that there is a valid reason for their exit eg death or transfer to a state jurisdiction. In addition, all individuals who joined the Scheme after 30 June 2011 had to be accounted for.
- **4.3** The second method of data validation was to check the data against outside sources of information. For serving judges, the data was cross checked against court website information where that was available. The salaries for serving judges were compared to those set out in the relevant Remuneration Tribunal Determination. For pensioners, an approximate check on pensions valued compared to the amount recorded as expenditure in 2013/14 was done.
- **4.4** There were also a number of other data checks which were carried out on an annual basis over the inter-valuation period. These checked that actual pension increases were in line with the stated increase in salaries as set out in the Remuneration Tribunal Determinations. The pensions paid to new pensioners were checked for reasonableness, taking into account their mode of exit, length of service, the current salary as set out in the relevant Remuneration Tribunal Determination and, where appropriate, the reduction in benefits due to the superannuation surcharge.
- **4.5** None of these checks indicated any material issues. Hence, I regard the data as satisfactory and suitable for purpose of this report.

### Membership

**4.6** The following table summarises, by Court, the membership of the Scheme as at 30 June 2014 and the corresponding position as at 30 June 2011.

	1 July 2011		1 Jul	y 2014
Serving Judges	Number	Salaries \$ pa	Number	Salaries \$ pa
High Court	7	3,275,630	7	3,454,950
Non-High Court <sup>1</sup>	80	31,381,270	84	34,769,918
Fair Work Commission	15	5,871,157	13	5,388,060
Total	102	40,528,057	104	43,612,928
Pensioners	Number	Annual Pension \$ pa	Number	Annual Pension \$ pa
Retirement	137	31,816,068	143	34,899,496
Invalidity	1	234,684	3	732,535
Spouse	42	6,174,150	44	6,727,481
Associate spouse (Family Law split)	0 <sup>2</sup>	0	4	324,287
Total	180	38,224,902	194	42,683,799

### Serving members

**4.7** The following table summarises, by Court, the membership of the scheme as at 30 June 2014 and the corresponding position as at 30 June 2011.

<sup>1</sup> Non-High Court includes Federal Court, Family Court, Western Australia Family Court and ACT Supreme Court.

<sup>2</sup> Before March 2013, there was no stand-alone interest for the non-member spouse. At 30 June 2011, there was one individual who was receiving a percentage of the former judge's pension.

MEMBERSHIP (Serving judges)						
	1 July 2011		1 July 2014			
	Males Females Total		Males	Females	Total	
High Court	4	3	7	4	3	7
Federal Court	35	8	43	35	11	46
Family Court (inc WA)	23	13	36	20	18	38
ACT Supreme Court	1	0	1	0	0	0
Fair Work Commission	12	3	15	10	3	13
Total	75	27	102	69	35	104

- **4.8** The number of serving members has increased from 102 to 104. Over the inter-valuation period 30 members joined the Scheme, and 28 members exited from serving member status. The majority of departing members retired. Two members retired on invalidity grounds and one serving judge died during this period.
- **4.9** Over the period, the number of serving female judges increased from 27 to 35.

### Pensioners

- **4.10** Over three year period to 30 June 2014, the number of pensioners has increased from 180 to 194. During this period 40 new pensioners commenced, 4 independent associate pensions commenced due to Family Law splits (including the replacement of previous percentage only splits) and 30 pensioners died.
- **4.11** The majority of retirement and invalidity pensioners are male (124 out of a total of 146) and the majority of spouse and associate pensioners are female.

# 5. Assumptions

**5.1** Estimates of superannuation costs over a future time horizon, of necessity, are based on assumptions about the future. These assumptions are divided into two categories:

• Economic assumptions – those are not directly related to the Scheme membership; and

• Demographic assumptions – those are based on the Scheme membership experience

- **5.2** This chapter discusses the assumptions made and their implications in broad terms.
- **5.3** Details of the assumptions used are provided in Appendix B.

### **Economic Assumptions**

- **5.4** The significant economic assumptions made in determining the estimated long term costs of the Scheme, are:
  - the level of future increases in salary (and pensions); and

• the interest rate that is assumed for discounting projected benefit payments to give a present value.

- **5.5** The relationship between these rates is one of the most significant matters affecting the long term cost estimates. Changes of equal magnitude in the absolute levels of each of the rates will have only a minor effect on the long term cost estimates whereas changes in the relationship between the rates can have quite substantial effects.
- **5.6** For this report, the following assumptions have been adopted:

Interest Rate:	6.0% per annum
Long Term General Salary Increases:	4.0% per annum

These assumptions represent a 2.0% p.a. real rate of return over the rate of salary increases. These are the same assumptions as have been adopted since the first review by the Australian Government Actuary and are the same as those used for other Commonwealth schemes.

**5.7** Assumptions regarding the rate of increase in GDP are also required. Based on the above assumptions for wage growth relative to a CPI increase assumption of 2.5% per annum, Treasury has produced a projection of annual GDP growth rates (included in Appendix B). This projection has been generated specifically for the purpose of long term cost reports for Commonwealth Schemes. It should not be regarded as an official Commonwealth Treasury projection. The GDP growth rates incorporate the long term effects of demographic and labour force change. The changes to the GDP growth assumptions from those used for the 2011 report have no

effect on nominal dollar outlays. However, the variation in GDP growth rates does affect the outlays and liabilities reported as a percentage of GDP.

### **Demographic Assumptions**

**5.8** As the number of members of the Scheme is relatively small, the data available from 1 July 1999 is, for the most part, insufficient to set detailed assumptions. Given the likely similarity between the experience of the membership of the Scheme and that of the Parliamentary Contributory Superannuation Scheme (PCSS), most assumptions have been based on the PCSS assumptions with adjustments, where appropriate. The PCSS assumptions are in turn are based on the assumptions for the Commonwealth Superannuation Scheme (CSS). However, to capture Scheme specific features, a close examination of limited available data was conducted. When considering Scheme specific features, it needs to be borne in mind that the experience from successive inter-valuation periods can be quite volatile.

### Mortality of Serving Judges

**5.9** One serving judge died during the inter-valuation period and this was the first death in service in nine years. Given that deaths in service are uncommon, mortality assumptions cannot be reliably based on recent experience. Accordingly, the mortality rates for serving judges have been assumed to be the same as those adopted for members in the Commonwealth Superannuation Scheme (CSS) at the most recent long term cost report (2014) i.e. general public servant levels. An examination of the actual experience versus the expected experience over the inter-valuation period is shown in table 5.1.

### Invalidity

**5.10** There were two invalidity retirements during this inter-valuation period. Again the experience has been volatile over time. The same approach for setting death in service assumptions has also been used for setting invalidity retirement assumptions. That is, the rates of invalidity retirement adopted are the same as those used for the most recent CSS long term cost report (2014), with an extension to allow for invalidity retirements up to age 70. An examination of the actual experience versus the expected experience over the inter-valuation period is shown in table 5.1.

### **Retirement/Early Retirement Rates**

- **5.11** Prior to the maximum retiring age (70 except for the FWC where it is 65) judges become eligible for benefits on completion of 10 years' service and attainment of age 60. Unless both conditions are met no pension benefit is payable from the Scheme on voluntary exit prior to maximum retiring age. Over time there has been considerable volatility in the inter-valuation period experience. Exits are spread over a wide range of ages. As might be expected, there do seem to be proportionately more exits when an individual first becomes eligible to retire voluntarily and when retirement is compulsory (age 70 for most Scheme members).
- **5.12** An investigation of the length of service counting for benefit purposes of retirees confirmed that there was a higher rate of retirement exits at 10

years duration. This is the minimum service period required to be eligible for a pension benefit provided that the individual had attained age 60. Table 5.1 below reveals that the actual number of exits over the inter-valuation period was higher than would have been expected using the 2011 retirement assumptions. We have decided to adjust the retirement assumption for this long term cost report by doubling the standard age related retirement exit rate at duration 10 years provided the member is aged 61 or more at that time. For example, the standard age probability of retirement at age 62 is 0.10. If an individual were to be first eligible to retire voluntarily at age 62, the retirement probability would be doubled to 0.20 at age 62 before reverting back to the standard age retirement probabilities at subsequent ages. The adjusted expected exits under this approach are still lower than the observed exits but again the exit experience varies considerably over different inter-valuation periods.

2011 Assumptions				
Type of Exit	cit No Change Doubling Exit F		ate at Duration 10	
	Expected	Expected	Actual	
Retirement	20.9	21.8	24	
Invalidity	1.0	0.9	2	
Death	0.6	0.6	1	
Total	22.5	23.3	27	

#### Table 5.1 Exit Experience for in Service Members

**5.13** The detailed retirement assumptions are set out in Appendix B.

### **Mortality of Pensioners**

**5.14** We observed an unexpectedly large number of deaths for male pensioners in the inter-valuation period. Over the last 12 years since the long term cost report as at 30 June 2002, there have been 36 male pensioner deaths. 16 of these 36 deaths occurred in the last three years. This illustrates just how volatile outcomes can be with a small membership group. Table 5.2 shows the analysis of the mortality rates over the 12 year period compared to what would have been expected had the rates used for the current long term cost report been used throughout the whole period. Some care needs to be taken in interpreting these figures as the current rates have not been adjusted for mortality improvement over the 12 year period. Had the rates been adjusted for mortality improvement over the period, the number of expected exits would have been a little higher. This analysis indicates that there is no obvious reason not to continue with the approach of using 90 per cent of most recent CSS pensioner mortality rate for male pensioners.

Age group	Actual exits	Expected exits	Actual/Expected
60 - 69	3	1.8	1.667
70 – 79	11	9.6	1.146
80 - 89	18	18.0	1.000
90 - 99	4	4.4	0.909
Total	36	33.8	1.066

#### Table 5.2 Analysis of Male Pensioner Mortality Rate

- **5.15** A similar observation to that of male pensioners also occurred in the female widow pensioners' experience over the inter-valuation period. Of the 26 widow deaths that occurred over the 12 year period to 30 June 2014, 12 occurred in the last three years. However, the numbers involved are small. When the impact of possible random fluctuations is factored in, there is not enough evidence at this stage to draw any meaningful conclusions about a change in the approach for setting mortality assumptions for widow pensioners. Therefore, the most recent CSS assumptions for this group have been adopted for this report.
- **5.16** There is insufficient experience to analyse for female age and widower pensioners. Again, the most recent CSS assumptions for these groups have been adopted for this report.
- **5.17** There is an argument that invalid pensioners would, on average, be in poorer health than pensioners who have retired voluntarily. Again, there is insufficient experience to analyse. The rates of pensioner mortality for invalid retirements have been set equal to that adopted for longer term CSS invalid retirements in the most recent long term cost report (2014).
- **5.18** Allowances for future improvements in mortality rates of age pensioners and spouse pensioners were made in accordance with the trend in improvements shown in the series of Australian Life Tables published over the 40 years to 2000-02. No allowance has been made for improvements in mortality rates for invalid retirements.

### Proportions married and spouse assumptions

- **5.19** Table 5.3 gives a summary of the marital status of male members who died during the period since 1 July 2002. The proportions married experience was in line with previous experience and the 2011 assumptions have been retained.
- **5.20** In previous review we have assumed male judges will, on average, be five years older than their surviving partners. Adding new data for the current three year inter-valuation period suggests the average age gap between male members and their partners is 4.5 years which is not out of line with the previous assumption. The 2011 assumption remains unchanged for this report. There is no sensible data to analyse for the age gap between female pensioners and judges and their partners. We have maintained the

assumption that female judges would, on average, be three years younger than their surviving partners.

Period	No of Deaths	No of Widows	Age Difference (M-F)	% of Deaths with Widows
1 July 2002 – 30 June 2005	10	7	1.5	70
1 July 2005 – 30 June 2008	10	8	5.1	80
1 July 2008 – 30 June 2011	8	6	7.9	75
1 July 2011 – 30 June 2014	16	13	4.2	81
Overall	44	34	4.5	77

# Table 5.3 Summary of Experience Relating to Male Members since 1 July2002

### **Transfers between courts**

**5.21** Judges can move between Courts (including some State and Territory jurisdictions) and have previous judicial service recognised for benefit purposes. No allowance has been made in our costings for the possible impact of transfers from, or to, the Commonwealth. This is broadly equivalent to assuming that the costs of transfers to and from the Commonwealth net out to zero. In practice, it appears that there are more transfers to the Commonwealth than from the Commonwealth and this results in a small cost impost on the Commonwealth.

### **New Entrants**

- **5.22** The 2011 long term cost report was the first time new entrant assumptions were required so as to allow the projection of future cash flows. As this is only the second long term cost report where new entrant assumptions are required, we have taken the opportunity to review the appropriateness of the assumptions. In setting assumptions, there are three elements that need to be considered. They are the number of new entrants, the age distribution of new entrants, as well as the salaries of new entrants.
- **5.23** To consider the numbers of new entrants required, the Scheme membership was divided into three categories
  - Exiting FWC members the FWC section of the Scheme is effectively closed to new members and therefore no new entrants are assumed.
  - Exiting High Court judges -replaced by a new judge of the same gender
  - Exiting non-High Court judges replaced by a new judge of the same gender

As such, the number of members in each category and gender ratio remains unchanged (except for the FWC section).

**5.24** There were only four new entrants during the last 12 years to the High Court. The data is scarce but it appears that most new appointments are at

ages in the late fifties. Relative to the 2011 assumption, we have allowed for a slightly wider spread of ages at joining.

**5.25** We have analysed the new entrant experience of courts other than the High Court from 1 July 2002 onwards. The results of that analysis are summarised in Table 5.4 and the new entrant assumptions for the 2014 long term cost report have been set to better reflect the observed experience.

Age at Joined the Scheme	2011 Assumption	Actual Data 1/7/2002 to 30/6/2014	Actual Data 1/7/2011 to 30/6/2014	2014 Assumption
Age 35-39	7%	0%	0%	0%
Age 40-44	16%	5%	4%	4%
Age 45-49	24%	15%	15%	15%
Age 50-54	27%	32%	27%	29%
Age 55-59	21%	34%	31%	39%
Age 60-64	5%	13%	23%	13%
Age 65 and over	0%	1%	0%	0%
Total	100%	100%	100%	100%
Age over 55	26%	48%	54%	52%

### Table 5.4 the non-High Court new entrant age distribution

**5.26** Figure 5.1 shows the assumptions for non-High Court judges for the 2011 and 2014 long term cost report and the raw ungraduated rates derived from the analysis.



Figure 5.1 New entrant age distribution for Non-High Court Judges

**5.27** The table 5.5 displays the assumed new entrant salaries. New entrants are assumed to join at a salary equal to that of the average of those for existing judges of the relevant court.

#### Table 5.5 New Entrant Salary as at 1 July 2014

High Court	Non-High Court
\$486,480	\$412,550

### **Effect of Changes to Assumptions**

**5.28** Overall, the changes to the assumptions are relatively minor but they do have the impact of increasing reported costs in terms of the accrued liability and the notional employer contribution cost.

#### Superannuation Surcharge

**5.29** In 1996 the Government introduced the superannuation surcharge. Most serving judges at the time the measure was introduced were exempted from the superannuation surcharge. The surcharge results in the Scheme paying a tax on employer contributions in respect of members with high incomes. The superannuation surcharge was abolished for benefits accruing on or after 1 July 2005. The maximum rate of tax was 15%. As the Scheme is an unfunded scheme the tax levied each year is accumulated with interest and is paid to the Commonwealth when the individual retires. Thus, at 30 June 2014, the Scheme had an accrued liability to pay the Commonwealth tax in respect of superannuation assessments received.

- **5.30** The Government also passed legislation to reduce benefits payable from the Scheme where the superannuation surcharge applies. This results in a reduction in the benefits paid by the Scheme and hence a reduction in the accrued liability attributable to payment of benefits.
- **5.31** For the 2014 costing, we have made an assumption that the liability to pay the Commonwealth tax in respect of superannuation surcharge assessments will equal the value of reduction in the accrued liability resulting from the reduction in benefits (pensions) payable. Using this assumption means that the impact of the superannuation surcharge on serving judges (the tax liability and the resulting reduction of benefits) can be ignored for costing purposes. Using this assumption will slightly distort projected cash payments as some pension payments made over a number of years will be replaced by a superannuation surcharge lump sum payment. This effect is very minor in an overall scheme context. For reference, total surcharge debts accounts as at 1 July 2014 amounted to approximately \$2.1 million.

# 6. Notional Employer Contribution Rate (best estimate accrual)

- **6.1** A notional employer contribution rate has been calculated to illustrate the effective costs arising under the Scheme as a percentage of the total salaries of serving judges. It represents the contribution rate that would be required to keep the Scheme fully funded in three years' time if it was fully funded at 30 June 2014 and the experience of the Scheme was in line with the assumptions. This methodology is known as the projected unit credit (PUC) method.
- **6.2** The best estimate accrual methodology assumes that benefits for serving members are accrued uniformly over the period of service to the date of exit. The notional employer contribution rate calculated is 76.1% of the salaries for all courts.
- **6.3** The comparable notional employer contribution rate in 2011 Report was 68.9%. Had the 2011 assumptions been retained and 2014 data used, the notional employer contribution rate would have been 72.2%. The increase in notional employer contribution rate of 3.3% of salaries was due to changes in membership structure and three years' worth of pensioner mortality improvement.
- **6.4** The increase from 72.2% had the 2011 assumptions been retained to 76.1% is due to changes in the demographic assumptions. The most significant impact is from the introduction of doubling the normally assumed age exit rate for the year that an individual completes 10 years of effective service provided that the relevant age is 61 or more. For an individual, employer cost per year of service is maximised if the individual retires at the first available opportunity. Thus, assuming more individuals retire at the first available opportunity increases estimated costs. There were smaller impacts from changes to the pensioner mortality rates and changes to the new entrant age distribution.

# 7. Accrued Liabilities (best estimate accrual)

- **7.1** The accrued liabilities of the Scheme are the liabilities for superannuation entitlements in respect of judicial service already rendered. They do not fall due until the rules of the Scheme provide for benefits to be payable which, generally, is when members retire and so they are spread over many years into the future. They are the present value of all of the liabilities accrued in respect of service already rendered by members and pensioners. No allowance is made in the calculations for any offset the Commonwealth will receive as a result of payment of pension benefits e.g. tax payable on benefit payments.
- 7.2 The net present value of accrued liabilities was calculated to be \$857 million as at 30 June 2014. As the Scheme is completely unfunded this is also the value of the unfunded superannuation liabilities. The equivalent figure at 30 June 2011 was \$782 million. Table 7.1 shows the breakdown of these in 2014 and 2011.

	Accrued Liabilities as at 30 June 2011 (\$ million)	Accrued Liabilities as at 30 June 2014 (\$ million)
Pensioners	537	603
Serving judges	245	254
TOTAL	782	857

### Table 7.1 Breakdown of Accrued Liabilities

- **7.3** In the 2011 Report, it was projected that the accrued liability would have been \$884 million as at 1 July 2014. The estimate presented in this report is \$857 million. However, if the assumptions for the 2011 long term cost report had been retained for this valuation, the value of accrued liabilities calculated in this report would have been even lower at \$844 million.
- 7.4 The main reason that the value of the accrued liability differs from that projected is that over the three years, Remuneration Tribunal Determinations have resulted in judicial salaries increasing by an average of 1.8% per annum which is lower than the 4.0% per annum assumed. This has resulted accrued liability being around \$55 million less than it otherwise would have been. The second significant factor in the outcome was the impact of new entrants with previous judicial service. Over the three years, this has added about \$10 million to the accrued liability. Other items have

had a more minor effect. These included the higher than expected number of pensioner deaths over the three years which has been mentioned earlier in the report and which reduced the accrued liability. In last three years, more female judges than male judges have been appointed to the courts and this has had a very small impact on accrued liability.

**7.5** The increase in the accrued liability from \$844 million to \$857 million is as a result of the changes to the demographic assumptions. These included changes in pension mortality rates and the introduction of doubling the normally assumed age exit rate for the year that an individual completes 10 years of effective service provided that the relevant age is 61 or more at the time.

# 8. AASB 119 Accrual Methodology

- **8.1** As with other Commonwealth sponsored schemes, we have provided figures assuming that the AASB 119 accrual methodology is used for serving judges. The AASB 119 accrual methodology results in a faster recognition of accruing benefits for serving judges than the best estimate accrual methodology. This results in a higher accrued liability figure.
- **8.2** The accrued liabilities are set out in the table below (on the economic basis used in this report):

	Accrued Liabilities as at 30 June 2011 (\$ million)	Accrued Liabilities as at 30 June 2014 (\$ million)
Pensioners	537	603
Serving judges	294	305
TOTAL	831	907

### **Table 8.1 Accrued Liabilities**

- **8.3** The notional employer contribution rate under this approach is 70.7% of salaries as compared to 63.3% in the 2011 Report.
- **8.4** We consider that the use of AASB 119 accrual methodology in the context of the Judges' Pension Scheme is conservative and results in a higher accrued liability than the best estimate accrual approach.
- **8.5** More generally, care should be exercised when applying the results presented in this report to particular purposes.
- **8.6** For example, for the current group of serving judges, the AASB119 methodology results in a lower notional employer contribution rate than the best estimate accrual methodology, all else equal. This is because under the AASB 119 accrual methodology, there is a higher employer contribution rate during the period to when the individual is first eligible for a pension but once eligibility is attained, the employer contribution rate drops to zero. Thus, under the AASB 119 accrual methodology, the notional employer contribution rate is more sensitive to the membership service profile than under the best estimate accrual methodology. As a result of this, we consider that the use of the best estimate notional contribution rate would be more appropriate than the AASB 119 notional employer contribution rate when considering broader remuneration issues for the judiciary.
- **8.7** The accrued liability figure given above differs from the figure in the Department of Finance's financial statements for the Scheme as at

30 June 2014. The main reason for this is that the relevant accounting standard, AASB 119, requires that economic (or financial) assumptions are to be based on 'market expectations' with the interest rate to be based on the yield on Government bonds. This resulted in an interest rate of 4.1% per annum being used for financial statements purposes which increases the accrued liability. There are also differences in that slightly different data was used, and the demographic assumptions used were those from the Long Term Cost Report as at 30 June 2011.

# 9. Projections

- **9.1** A projection of annual Commonwealth outlays has been carried out to show the cash impact of the Scheme in the long term. The Table below shows projected outlays for the next six years and then every fifth year from 2019-20. Note that the projections assume that the Scheme remains open to new judges and that there are no changes to benefits.
- **9.2** The Table below also shows projected unfunded liabilities at the end of the year, both on the best estimate accrual basis and the AASB 119 accrual basis (on the economic basis used in this report).
- **9.3** To enable a long term comparison, projected cash expenditure and projected unfunded liabilities on a best estimate accrual basis have been expressed as a percentage of GDP.

Financial	Cash Outlay		Accrued Liability (end year)			
Year	(\$M)	%GDP	Best estimate(\$M)	%GDP	AASB 119 (\$M)	
2014-15	43.1	0.0026%	898	0.0539%	950	
2015-16	46.1	0.0026%	937	0.0531%	990	
2016-17	49.3	0.0026%	977	0.0524%	1,029	
2017-18	52.2	0.0026%	1,019	0.0517%	1,070	
2018-19	55.5	0.0027%	1,060	0.0509%	1,112	
2019-20	58.2	0.0026%	1,104	0.0501%	1,155	
2024-25	76.1	0.0026%	1,317	0.0456%	1,376	
2029-30	93.9	0.0025%	1,552	0.0412%	1,626	
2034-35	113.8	0.0023%	1,822	0.0372%	1,912	
2039-40	134.9	0.0021%	2,147	0.0337%	2,258	
2044-45	157.5	0.0019%	2,555	0.0310%	2,692	
2049-50	184.5	0.0017%	3,073	0.0291%	3,240	
2054-55	219.6	0.0016%	3,727	0.0276%	3,929	

#### Table 9.1 Projection of Cash Outlays and Accrued Liabilities

- **9.4** Over the period to 2054-55, cash expenditure as a percentage of GDP is projected to reduce by around 40%. The main reason for this is that the serving membership is assumed to fall as a percentage of the total Australian population. This is mainly due to assuming that the total number of serving judges of the High Court, Federal Court and Family Court remains constant while the size of the Australian population increases. It is also partly due to exiting FWC members not being replaced by new members. In addition, the past closure of eligibility for membership of the Scheme to new members of other bodies such as the Administrative Appeals Tribunal has a similar effect on projected cash expenditure as a percentage of GDP.
- **9.5** Given the projected decline in costs as a percentage of GDP and the implicit Commonwealth guarantee to pay benefits, we believe that the current method of funding benefits is adequate from the perspective of the continuing financial viability of the Scheme.

# 10. Sensitivity Analysis

**10.1** We analysed how sensitive the best estimate accrued liability and notional employer contribution rate as a percentage of salaries was to a change in the assumed rate of salary increases. The results are outlined in the table below:

## Table 10.1 Accrued Liability and Notional Employer Contribution Rate Under Different Scenarios

Scenario (30 June 2014)	Accrued Liability	Notional Employer Contribution Rate
Base assumption (4% pa salary increase)	\$857 million	76.1%
Base assumption - 1% (3% pa salary increase)	\$767 million	63.8%
Base assumption + 1% (5% pa salary increase)	\$965 million	91.4%

- **10.2** As can be seen from the above table, an increase of one percentage point in the assumed annual rate of salary increases adds approximately 13% to the accrued liability and approximately 15 percentage points to the notional employer contribution rate.
- **10.3** Importantly, if both the salary increase assumption and the discount rate assumption are changed by the same amount, there will only be a minor change to estimates of the accrued liability and the notional employer contribution rate.
- **10.4** It should be noted that the actual costs of the Scheme will depend on actual experience which will only be known with the benefit of hindsight. It is possible that actual costs will be outside the range outlined above.

Peter Martin FIAA Australian Government Actuary 27 May 2015

# Appendix A: Summary of Benefit Provisions

This report covers liabilities relating to members of the Judges' Pension Scheme. Provisions relating to the Scheme are set down in the Judges' Pensions Act 1968. A summary of the principal provisions of the Scheme is set out below. It should not be used to calculate benefits for individuals. The PSS was closed to new entrants from 1 July 2005.

### Eligibility

#### **Pension Benefit on Voluntary Exit**

Minimum Age for Retirement Pension Benefit:	Age 60
Maximum Age at Retirement (except FWC):	Age 70
Maximum Age at Retirement (FWC)	Age 65

#### **Invalidity Pension Benefit**

The judge is certified by the Finance Minister as having retired on the grounds of permanent disability or infirmity.

### **Benefits**

#### **Retirement Pension Benefit**

Exit after attaining the minimum retirement age with 10 or more years judicial service completed:

60 per cent of the salary currently paid in respect of a judge of equivalent appointment to that of the judge at the time of retirement.

Exit at the maximum retirement age with at least 6 years but less than 10 years judicial completed:

0.5 per cent of the appropriate judicial salary for each completed month of service

#### Invalidity pension

60 per cent of the salary currently paid in respect of a judge of equivalent appointment to that of the judge at the time of retirement.

#### **Spouse Benefits**

On death in service of a married judge:

62.5 per cent of the pension the judge would have received had that judge retired either voluntarily or, if not eligible for a voluntary retirement pension, on the grounds of invalidity, on the date of his/her death

On the death of a married retired judge, providing the marriage took place

- prior to the later of retirement and age 60 years; or
- at least 5 years before the judge's death

62.5 per cent of the pension entitlement of the retired judge.

Note that marriage includes de facto relationships and same sex partners.

# Resignation (or voluntary exit not included above) and death in service with no spouse

If voluntary exit occurs:

- prior to attainment of age 60 years; or
- prior to the maximum retiring age with less than 10 years judicial service; or
- at the maximum retiring age with less than 6 years of judicial service

no benefit is payable from the Scheme if the judge commenced office prior to 1 July 2006.

If a judge dies in service with no spouse or eligible children, no benefit is payable from the Scheme if the judge commenced office prior to 1 July 2006.

Note that a small benefit would be payable under the Commonwealth's Superannuation Guarantee safety net legislation where no benefit is payable from the Judges' Pension Scheme.

For judges that commenced office on or after 1 July 2006, a lump sum accumulation benefit is payable from the Scheme at a level sufficient to meet Superannuation Guarantee requirements.

#### Superannuation Surcharge

The benefits set out above apply to those judges that have no surcharge debt account. If a judge has a surcharge debt account in debit at the time a benefit is payable, benefits are reduced in line with the relevant provisions of the *Judges' Pensions Act 1968.* 

### Contributions

Judges do not contribute to the Scheme. The Commonwealth meets the whole cost of the Scheme.

# Appendix B: Detailed Actuarial Assumptions

### **Economic Assumptions**

The long term economic assumptions adopted were as follows:

- Interest Rate /Discount Rate 6% per annum
- General Salary Increase 4% per annum
- Pension rates move in line with General Salary Increases

### **Demographic Assumptions**

#### **Retirement Rates**

Prior to the maximum retiring age (70 except for FWC where it is 65) members become eligible for benefits on completion of 10 years' service and attainment of age 60 i.e. retirement is a function of both age and duration. The rates set out in the table below are the rates applying to members who are eligible to retire (have more than 10 years' service or reach maximum retiring age):

Attained Age	Retirement Rate			
Attained Age	Non-Fair Work Commission	Fair Work Commission		
60	0.15	0.15		
61	0.10	0.10		
62	0.10	0.10		
63	0.10	0.10		
64	0.10	0.10		
65	0.15	1.00		
66	0.15	-		
67	0.15	-		
68	0.20	-		
69	0.20	-		
70	1.00	-		

### **Mortality and Invalidity Retirement**

The table below illustrates the decrement rates used for deaths and invalidity retirements. The figures represent the number of deaths and invalidity retirements expected per 100,000 serving members at each age.

Age	Deaths		Invalid Retirements	
	Males	Females	Males	Females
35	38	20	57	61
40	47	26	79	103
45	63	41	127	164
50	88	62	194	255
55	124	106	305	426
60	183	173	601	646
65	274	269	704	851

### **Pensioner Mortality**

The table below shows the mortality rates assumed for all pensioners.

	Males (Per 1,000 at age shown)			Females (Per 1,000 at age shown)		
Age	Age Retirement	Invalidity	Widower	Age Retirement	Invalidity	Widow
40	-	1.16	1.28	-	0.92	0.59
50	-	2.03	2.40	-	2.05	1.42
60	2.56	5.75	6.67	2.24	5.72	3.56
65	4.62	10.76	11.45	3.69	9.43	5.56
70	8.78	18.76	20.16	6.89	15.90	9.30
75	16.84	31.11	32.91	12.50	26.08	15.98
80	34.37	56.15	56.47	24.42	42.09	30.13
90	128.62	159.21	161.77	102.25	145.24	110.21
100	377.17	358.79	358.79	313.35	356.50	338.67

### **Proportion Married**

The Table below shows the proportions married assumed.

	Proportion Married		
Age	Males	Females	
40	0.950	0.950	
50	0.950	0.950	
55	0.950	0.950	
60	0.950	0.950	
65	0.950	0.950	
70	0.944	0.885	

	Proportion Married		
Age	Males	Females	
75	0.906	0.771	
80	0.844	0.585	
90	0.576	0.135	
100	0.154	0.009	

Male judges are assumed to be married to females five years their junior. Female judges are assumed to be married to males three years their senior.

### Improvements in Pensioner Mortality

The following Table summarises assumed future improvements in age and spouse pensioner mortality.

Assumed Percentage Annual Rates of Mortality Reduction			
Age	Male	Female	
40	1.6	1.9	
50	2.4	2.1	
60	2.4	1.9	
70	2.0	2.0	
80	1.5	1.9	
90	1.1	1.3	
100	1.3	1.1	

## **GDP** Assumptions

GDP growth rates are based on Commonwealth Treasury projections of nominal GDP values adjusted for consistency with the inflation and wage growth assumptions adopted for the 2014 long term costs reports of the Commonwealth superannuation schemes. Given this adjustment, they should not be regarded as official Commonwealth Treasury projections.

GDP Growth Rates (adjusted for CPI inflation assumed to be 2.5% per annum)			
Year	Per cent per annum	Year	Per cent per annum
2014-15	2.9	2035-36	2.9
2015-16	3.1	2036-37	2.8
2016-17	3.1	2037-38	2.8
2017-18	3.1	2038-39	2.8
2018-19	3.2	2039-40	2.8
2019-20	3.1	2040-41	2.7
2020-21	3.0	2041-42	2.7
2021-22	3.0	2042-43	2.7
2022-23	2.9	2043-44	2.7
2023-24	2.9	2044-45	2.7
2024-25	2.9	2045-46	2.6
2025-26	2.9	2046-47	2.6
2026-27	2.9	2047-48	2.6
2027-28	2.9	2048-49	2.5
2028-29	2.8	2049-50	2.5
2029-30	2.9	2050-51	2.5
2030-31	2.8	2051-52	2.5
2031-32	2.9	2052-53	2.4
2032-33	2.8	2053-54	2.4
2033-34	2.9	2054-55	2.4
2034-35	2.8	2055-56 onwards	2.4

## **New Entrant Assumptions**

	New Entrant Age Distribution			
Age at entry	Non-High court	High court		
40	7	-		
41	8	-		
42	8	-		
43	9	-		
44	13	-		
45	18	-		
46	23	-		
47	29	-		
48	35	-		
49	41	-		
50	46	-		
51	52	-		
52	58	-		
53	64	-		
54	69	100		
55	76	150		
56	85	150		
57	87	150		
58	79	150		
59	67	150		
60	50	150		
61	32	-		
62	20	-		
63	12	-		
64	12	-		
Total	1,000	1,000		

The following table below shows assumed age distribution per 1,000 new entrants.