

LGIAsuper - Regional DBF

**Actuarial Valuation
as at 1 July 2021**

7 December 2021

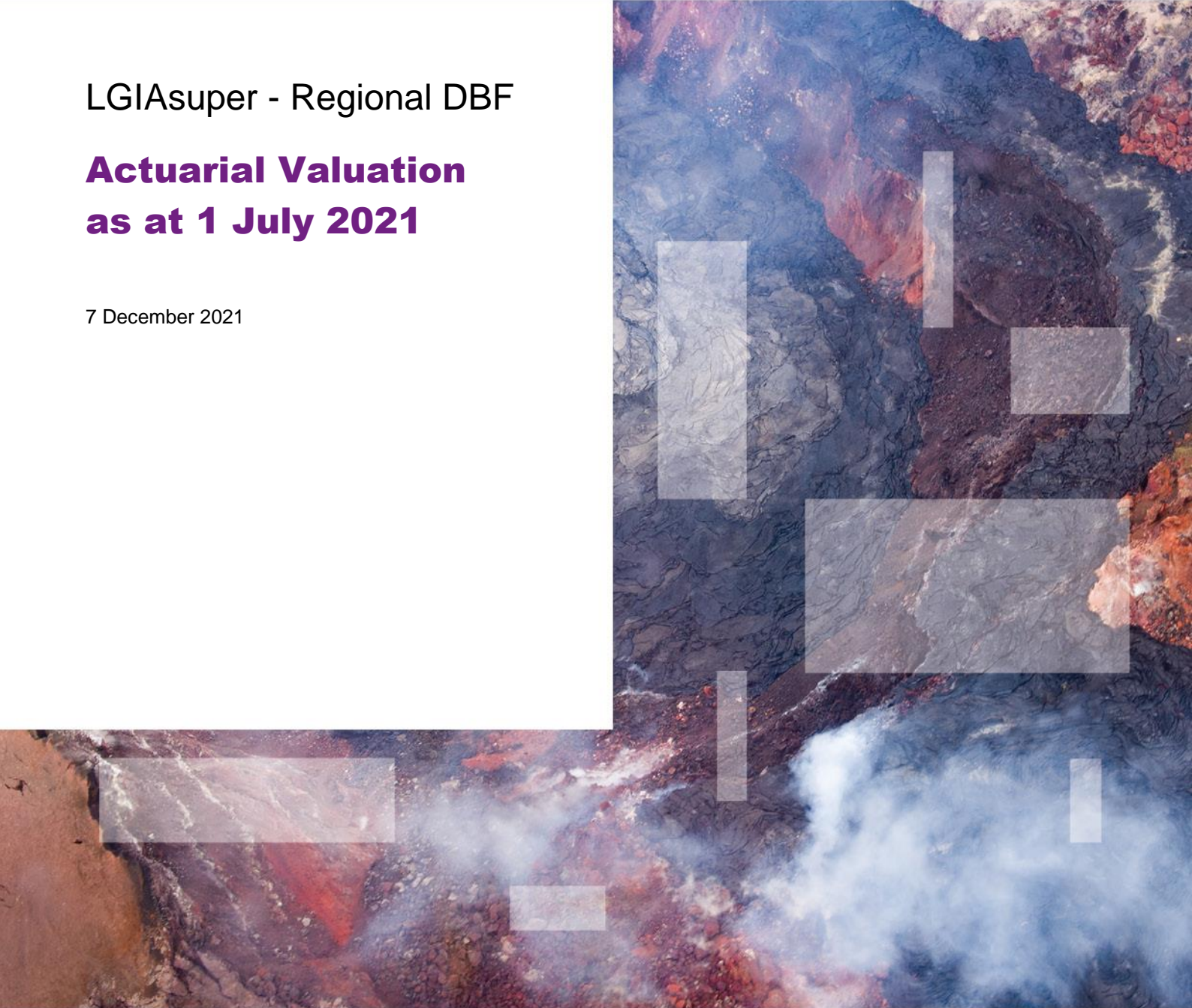


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Section 1: Purpose and Summary

LGIAsuper provides benefits which are of the “*defined benefit*” type where benefits are defined by salary and period of membership. There are three divisions of defined benefit arrangements within LGIAsuper, all of which are closed to new members:

- **Regional Defined Benefits Fund (Regional DBF)**
- City Defined Benefits Fund (City DBF)
- Energy Super Defined Benefits Fund (Energy Super DBF)

This report covers the Regional DBF arrangements.

There are also a significant number of Accumulation members of the Accumulation Benefits Fund (ABF) within LGIAsuper. The ABF is open to new members. Additional accumulation benefits are also provided within the ABF for most Defined Benefit members.

A regular actuarial review of LGIAsuper is necessary to:

- examine the sufficiency of each DBF's assets in relation to members' accrued benefit entitlements
- determine the recommended employer contribution rate required to ensure that each DBF maintains a satisfactory financial position
- examine the suitability of the insurance and investment arrangements
- satisfy Clause 4.28 of the Trust Deed, and
- meet legislative and prudential standard requirements, in particular paragraph 23 of Prudential Standard 160 Defined Benefit Matters (“SPS160”).

This report covers the Regional DBF and has been prepared for the Trustee, LGIAsuper Trustee in my capacity as RSE Actuary to LGIAsuper. The effective date of this actuarial valuation is 1 July 2021.

This report has been prepared in accordance with Professional Standard 400 issued by the Institute of Actuaries of Australia dated March 2021. John Burnett conducted the previous valuation as at 1 July 2018 with the results set out in a report dated 29 November 2018.

Reliance statement and data

This report is provided subject to the terms set out herein and in our engagement letter signed 11 May 2021 and the accompanying Terms and Conditions of Engagement. This report is provided solely for the Trustee's use and for the specific purposes indicated above. It may not be suitable for use in any other context or for any other purpose.

Except where we expressly agree in writing, this report should not be disclosed or provided to any third party, other than as provided below. In the absence of such consent and an express assumption of responsibility, no responsibility whatsoever is accepted by us for any consequences arising from any third party relying on this report or any advice relating to its contents.

The Trustee may make a copy of this report available to its auditors, to employers who contribute to LGIAsuper and to any person to whom the Trustee may be required to provide a copy under relevant legislation, but we make no representation as to the suitability of this report for any purpose other than that for which it was originally provided and accept no responsibility or liability to the Trustee's auditors or the participating employers or any other parties in this regard. The Trustee should draw attention to the provisions of this paragraph when passing this report to these or any other parties.

In preparing this valuation, we have relied upon information and data provided to us orally and in writing by the Trustee and other persons or organisations designated by the Trustee. We have relied on all the data and information provided, including LGIAsuper Trust Deed provisions, membership data and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have performed limited checks for consistency. The data and information we have relied upon is shown in Section 2.

In our opinion, all calculations are in accordance with requirements of applicable legislative requirements, and the procedures followed and the results presented conform to applicable actuarial standards of practice.

Employer Contributions

In the absence of any special circumstances, we recommend that each Regional DBF employer continues to contribute at the following rates for the three year period commencing 1 July 2021:

- 12.0% of salaries for members contributing at 6% of salary.
- 11.0% of salaries for members contributing at 5% of salary.
- Additional contributions to the ABF for Regional DBF members at the rate of the prevailing Superannuation Guarantee rate (currently 10%) of the excess of Ordinary Time Earnings over the Regional DBF salary.

Funding Status Measures

Vested Benefits

Vested benefits are the benefits payable if all members voluntarily resigned from service. As at the valuation date, the ratio of the net assets to vested benefits was 123.2%.

The Regional DBF is in a “*satisfactory financial position*” if the net realisable value of the assets exceed the vested benefits. At the valuation date of 1 July 2021, the net assets of the exceeded the vested benefits and the Regional DBF was in a satisfactory financial position.

Assuming in respect of Regional DBF:

- a. the benefits described in the Trust Deed remain unchanged,
- b. employer contributions are paid at the recommended rate and
- c. the future experience is in accordance with the assumptions made in this actuarial valuation

then the net assets of Regional DBF should remain in excess of the corresponding vested benefits of the Regional DBF up to 1 July 2021.

Present Value of Accrued Benefits

The present value of accrued benefits is the actuarial value (using the assumptions and methodology detailed in this report) of the expected future benefits payable to the current members and their dependents in respect of membership completed up to the date of the actuarial investigation.

As at the valuation date, the ratio of the net assets to the present value of accrued benefits was 120.0%.

The net assets of the Regional DBF are adequate to cover the present value of the accrued benefits of Regional DBF members at the valuation date.

Minimum Benefits

Minimum Requisite Benefits (MRB) include member-financed benefits and the portion of the employer-financed benefit that is defined to meet Superannuation Guarantee requirements as specified in LGIAsuper's Benefit Certificate.

As at the valuation date, the ratio of the net assets to the MRB was 134.3%.

The Regional DBF is "solvent" if the net realisable value of the assets of the Regional DBF exceeds the MRBs. As at the valuation date the net assets exceeded the MRBs and the Regional DBF was in a solvent financial position.

Shortfall Limit

As required under SPS 160, the Trustee has set Shortfall Limit for the Regional DBF of 98.0%.

We have reviewed this Shortfall Limits as part of this actuarial investigation and consider that the Shortfall Limit remains appropriate.

Superannuation Guarantee

Superannuation Guarantee obligations of employers are met for members by the minimum benefits provided under LGIAsuper. The latest Benefit Certificate is dated 12 August 2021.

A Funding and Solvency Certificate dated 12 August 2021 has been issued to the Trustee corresponding to the above mentioned Benefit Certificate. The purpose of this Funding and Solvency Certificate is to specify the required Company contributions needed to fund the MRBs used to offset the Superannuation Guarantee charge. All necessary Funding and Solvency Certificates have been issued to the Trustee during the three years to 1 July 2021.

Based on the actuarial assumptions adopted in this valuation being borne out in practice, we expect that an actuary will be able to certify the solvency of the Regional DBF in any Funding and Solvency Certificate required during the three-year period following the valuation date.

Investments

The current investment policy adopted by the Trustee is to have the assets supporting the Regional DBF liabilities invested 50% in growth assets such as shares and property and 50% in defensive assets such as cash and fixed interest. The longer term strategic asset allocation is 60% growth and 40% defensive assets.

The current investment policy is considered suitable to the defined benefit liabilities of Regional DBF based on membership as at 1 July 2021. The Trustee regularly monitors the investment performance of the underlying investment managers and we recommend that this continues.

Insurance

In relation to Regional DBF, the total amount of insurance held to provide the unfunded portion of death and total and permanent disablement benefits and the fully insured temporary disablement benefit is considered adequate as at 1 July 2021.

Experience since 1 July 2021

Given the strong financial position of the Regional DBF at 1 July 2021 we do not consider any of the recommendations in this report need to be reviewed in the light of recent experience.

Next Valuation

The next valuation should be held no later than 1 July 2024. Vested Benefits coverage should continue to be monitored at least annually and more frequently if warranted.



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Australia

7 December 2021

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Section 2: Background and Data

LGIAsuper was initially established under a Trust Deed first made in 1995 as amended subsequently. LGIAsuper was originally known as the Queensland Local Government Superannuation Scheme. On 1 July 2017 the Scheme was renamed LGIAsuper. On 1 July 2011, the City Super Fund merged with the Scheme and on 1 July 2021, Energy Super transferred into LGIAsuper.

Under Clause 19.1 of the Trust Deed, the Regional DBF employers are required to contribute in line with the rates as specified in the Trust Deed.

LGIAsuper is a regulated complying superannuation fund under the SIS Act and for taxation purposes.

The Regional DBF is closed to new defined benefit members.

A summary of the main benefits of the Regional DBF is included in Appendix A of this report.

Previous Recommendations

John Burnett of Willis Towers Watson conducted the previous valuation as at 1 July 2018 with the results set out in a report dated 29 November 2018. Employer contributions paid to the Regional DBF over the three year period ending 1 July 2021 have been in line with the recommendations made at the previous valuation, as follows:

- 12% of salaries for members contributing at 6% of salaries, and
- 11% of salaries for members contributing at 5% of salaries, and
- Additional contributions to the ABF for Regional DBF members of 9.5% of the excess of Ordinary Time Earnings over the Regional DBF salary.

Changes to benefits since the last valuation

There have been no changes to the benefits of Regional DBF members considered in this valuation over the three years ending 1 July 2021.

From 1 July 2021, the Superannuation Guarantee (SG) rate, being the minimum rate of superannuation employers must provide for its employees increased from 9.5% to 10.0% and is set to increase further to 12.0% over the period to 1 July 2025. We have allowed for these future changes to the SG rate in the projections covered later in this report.

Sources of Information

We have relied on the administrative records at 1 July 2021, as currently stored on LGIAsuper's administration system.

We have relied on the audited accounts for the three years ending 1 July 2021 together with information set out in the LGIAsuper annual reports in each of these years.

Where possible the information provided has been checked for reasonableness and is considered suitable for the purposes of this investigation.

Data

The membership details are summarised in Appendix B. In brief there were 1,306 members of the Regional DBF as at 1 July 2021 with total salaries of \$104.1m. The Regional DBF does not have any lifetime pensioners.

We have checked a sample of the membership data for internal consistency and are satisfied as to the accuracy of this sample.

Since the previous valuation, the average attained age of Regional DBF members has increased from 57.6 years to 58.7 years.

All members of the Regional DBF at the current valuation date were present at the previous valuation. Salaries over the period since the last valuation have increased on average by 2.4% p.a. for Regional DBF members.

Section 3: Assets and Investment Strategy

Accounts

We have been supplied with audited accounts covering the 12 month periods to 1 July 2019, 1 July 2020 and 1 July 2021. These accounts were audited by PricewaterhouseCoopers and no material qualifications were identified in the audit report dated 28 September 2021. We have also been provided with details of the breakdown of these accounts for each of the three Defined Benefit Funds.

Fair value of Assets or Net Assets

These accounts for the Regional DBF have been combined to produce the following consolidated accounting statement for the period 1 July 2018 to 1 July 2021.

	Regional DBF \$000
Net Assets available to meet liabilities as at 1 July 2018	1,036,324
Plus:	
Employer Contributions	59,632
Member Contributions	8,847
Transfers from other funds	-
Insurance claim proceeds	760
Investment returns (net of investment tax)	154,049
Less:	
Benefit payments	(350,497)
Expenses	(9,535)
Insurance costs	(2,090)
Contribution tax	(9,555)
Net Assets available to meet liabilities as at 1 July 2021	887,836

We have adopted the net asset value of \$887.8 million for Regional DBF in determining the contribution recommendations and Funding Status Measures at the valuation date.

We note that at 1 July 2018, the Trustee maintained a separate Operational Risk Reserves (ORR) for the Regional DBF to meet the Operational Risk Financial Requirement. We also note that during 2021, the Trustee merged the ORR for each DBF into the main ORR for LGIAsuper and no longer maintains separate reserves for each DBF.

Defined Benefit Liabilities in general

The level of the Defined Benefit liabilities does not bear the same direct relationship with the defined benefit assets as exists with accumulation liabilities (where the assets and liabilities are generally matched).

The Defined Benefit liabilities reflect membership and salary growth, whereas the supporting assets depend on a range of factors including:

- i. the level of employer contributions, and
- ii. the level of investment returns.

In this case it is the employers who bear the investment risk as the level of contributions required depends on the level of investment returns achieved.

An investment strategy to provide defined benefits which is framed to take a long-term view will often adopt relatively high levels of equity investment in order:

- i. to secure attractive long term investment returns, and
- ii. to provide an opportunity for capital appreciation and dividend growth, which gives some protection against inflation (as benefits are linked to salary growth which is also influenced by inflation).

The main constraint is that potential fluctuations in asset values mean the total asset value could fall below the level of Vested Benefits, placing the DBF concerned and possibly the entire fund in an unsatisfactory financial position.

While the impact of a sudden sharp fall in asset values can be limited by maintaining a buffer of assets over and above the level of vested benefits, the level of the buffer may never be sufficiently high to safeguard against all possible investment outcomes. However, the buffer should be at a level where the risk of the asset values falling below the level of vested benefits under a particular investment strategy is acceptable to the Trustee and the sponsoring employers.

In this regard, a lower buffer may be acceptable where the sponsoring employers are willing and able to accept short-term variations in contributions as part of underwriting the defined benefits of the DBF they participate in. In this case, short-term variations in employer contributions may result from:

- i. reducing a buffer that has grown too large, or
- ii. rebuilding a buffer that has fallen or become negative.

An alternative to consider if a DBF does not have a sufficient asset buffer above the level of Vested Benefits is to adopt a more conservative investment strategy. While this may reduce short-term fluctuations in asset values, it is also likely to reduce long-term returns and hence result in increased employer contributions in the long-term. In summary, a balance needs to be achieved between these short-term and long-term considerations in funding the defined benefit liabilities.

Regional DBF liabilities

The Regional DBF provides 'greater of' benefits where the defined benefit is compared to one or more accumulation benefits and the higher amount is the benefit payable.

As the level of the accumulation benefit depends on the investment strategy adopted, this affects how the defined benefit and accumulation benefit correspond to each other and so is an important consideration when reviewing the investment strategy adopted under such a design.

Defined Benefits – Investment Objective

The Trustee's principal investment objective for the Regional DBF is to achieve returns in excess of salary inflation plus 1.5% p.a. over rolling three year periods.

We have taken account of the investment objectives of the Regional DBF and the investment guidelines under which LGIAsuper's investment managers operate in setting our actuarial assumptions in Section 4 of this report.

Investment Strategy

In order to meet the investment objectives set for the Regional DBF, the Trustee has adopted a specific long term strategic allocation and ranges for each asset class as shown in the table below. The strategic asset allocation and actual allocation at 1 July 2021 are shown below:

Asset Class	Strategic Asset Allocation	Actual Allocation
Australian shares	8.0%	8.0%
International shares	12.0%	8.1%
Property	9.0%	9.5%
Private Capital	10.0%	13.9%
Infrastructure	11.0%	4.3%
Diversifying Strategies	10.0%	6.9%
Diversified Fixed Interest	37.0%	36.0%
Cash	3.0%	13.3%
Total	100.0%	100.0%

Suitability of Investment Strategy

At the valuation date of 1 July 2021, the average age of the employed members with defined benefits is 58.7 years within Regional DBF, indicating that a medium-term time horizon should still apply for investment purposes.

Given the age profile and the number of members expected to retire over the next three years as outlined in Appendix B, it is expected that benefit outgo will exceed contribution inflow to the Regional DBF. The Trustee is able to take this into account the broader fund level cash-flow profile when considering how the liquidity needs of the Regional DBF will be met.

The current investment strategy of the Regional DBF is within a range considered suitable but should be reviewed regularly (at least triennially) by the Trustee in the light of changes in membership and age profile.

The Trustee regularly monitors the investment performance of the underlying investment managers and it is recommended that this continues.

Suitability of crediting rates

The crediting rate applied to the Minimum SG accumulation benefit outlined in Appendix A is based on the actual investment returns (net of fees and taxes) from the underlying assets. I consider this crediting rate policy to be suitable.

The crediting rate known as the Accumulation Comparison Rate (ACR) applied to other accumulation benefits held within the Regional DBF is subject to smoothing. The Trustee also has regard to the financial position of the DBF when setting this rate. I note that over the last two years, the Trustee has been reviewing the past history of how returns have been released under the ACR and has made appropriate adjustments in accordance with our advice to the ACR in the years ending 30 June 2020 and 30 June 2021. We note that this remains an ongoing area of review for the Trustee.

While I consider this crediting rate policy is also suitable, I recommend that the Trustee conduct a review of the smoothing approach to confirm if it is still warranted.

Section 4: Valuation Method, DBF Experience and Actuarial Assumptions

To carry out an actuarial valuation of the defined benefit liabilities of the Regional DBF, it is necessary to decide on:

- the valuation method to be adopted, and
- the assumptions as to the factors which will affect the cost of the benefits to be provided in the future.

Attained Age funding method

The funding method adopted at the previous valuation was the Attained Age method. This funding method remains appropriate for the Regional DBF, given the declining nature of the active/employed membership. We have retained the Attained Age method for this valuation.

Under the Attained Age funding method, the calculation of the employer contribution consists of two parts.

The **first part** is the “normal cost”. The total normal cost is expressed as a level % of expected future salaries and is equal to the sum of:

- the cost based on actuarial assumptions of the benefits accruing to the members in respect of all future membership following the valuation date, plus
- the cost of employer funded insurance premiums and administration expenses as well as resulting cost of contributions tax.

The **second part** is the adjustment to the employer contribution as a result of amortising any surplus or deficiency at the valuation date arising from the funding of past service benefits.

The contribution rate required to maintain vested benefits coverage above 100% in three years' time based on the valuation assumptions is also considered.

Experience and Valuation Assumptions

It is important when setting the valuation assumptions to examine the experience of the Regional DBF to see whether the previous assumptions have been borne out in practice. A summary of the major items of experience over the last three years is given in the following paragraphs.

Further details on the valuation assumptions adopted for Regional DBF are set out in Appendix C.

Investment Return

The assumption for investment returns at the last valuation was 4.8% p.a. (net of administration and investment fees and investment tax). The Regional DBF's investment returns over the three years to 1 July 2021 (net of administration and investment fees and investment tax) and the resulting crediting rate applied to ACR accounts have been as follows:

Year Ending 30 June	Investment Return (net of administration and investment fees and investment tax)	Crediting Rates applied to ACR accounts
2019	6.71%	7.00%
2020	1.61%	8.76%
2021	7.73%	11.14%
Average over the 3 years	5.32% p.a.	8.95% p.a.

The average investment return over three years of 5.3% p.a. was 0.5% p.a. higher than the assumed rate. This has had a positive effect on the Regional DBF's financial position in relation to defined benefit style liabilities and the Regional DBF's surplus.

The Crediting Rate applied to ACR accounts over the three year period of 8.95% p.a. has been 3.6% p.a. higher than the return earned by the regional DBF assets. This gap is due to two main factors, the first being the smoothing formula applied in determining the ACR under normal circumstances and the second is the positive interventions made by the Trustee in the years ending 30 June 2020 and 30 June 2021.

We also note that from 1 July 2021 onwards, the expense deduction from the Regional DBF assets has been increased from 0.18% pa to 0.33% pa.

For this valuation, we have adopted a lower long term future investment return equal to 4.5% p.a. (net of administration and investment fees and investment tax). This assumption is consistent with the Trustee's current investment strategy having regard to expected returns in the medium-term under Willis Towers Watson's investment model.

We have also allowed for a further positive interventions in the ACR over the next two years in relation to ongoing unwinding of the previous intervention during the Global Financial Crisis in accordance with the Trustee's Unit Pricing Policy (previously known as the Earning Rate Policy).

Salary Inflation

The assumed rate of salary inflation was 3.0% p.a. at the last valuation. The average rate of salary growth for members who were present at both the last and current valuation dates was 2.4% p.a. The actual increase in salary growth was 0.6% p.a. lower than the assumed rate. This has reduced the growth in accrued liabilities of the Regional DBF, which has had a positive effect on the Regional DBF's financial position.

At this valuation we retained the assumption of 3.0% p.a. for salary inflation.

Over the long term, it is the “gap” between the investment return (net of tax) and salary inflation assumption that is important when valuing member’s liabilities. In this valuation we have decreased the “gap” of 1.8% p.a. used in the previous valuation to 1.5% p.a. Over the review period the actual “gap” was 2.9% p.a. which has had a significant positive impact on the financial position of the Regional DBF.

Rates at which Members Leave Service

We have analysed the rates at which members resign and retire from the Defined Benefit Plan and compared the actual experience of the Regional DBF to that expected based on the previous valuation assumptions. A summary of the comparison is set out in the table below:

	Actual	Expected
Total attrition over 3 year period to 1 July 2021	13%	15%

For this valuation we have not changed the assumptions used at the previous valuation.

Insurance Premiums

The projected cost of insurance premiums are included in our valuation and the estimate of the long term cost of benefits. The cost of insurance premiums are modelled based on the projected insurance coverage and prevailing premium rates in the latest insurance policy.

We note that there are increases applicable to defined benefit premium rates from 1 July 2022 of the order of 11-12%. We have included these increases in the projected insurance costs in our valuation results.

New Members

The Regional DBF is closed to new entrants.

Summary of Valuation Assumptions

A summary of our valuation assumptions is set out in Appendix C of this report.

Section 5: Insurance Arrangements

Adequacy of Insurance

LGIAsuper currently has death, total and permanent disablement (TPD) and income protection insurance with TAL.

The insurance coverage within the Regional DBF is considered adequate if the net assets are sufficient to cover the Death and TPD benefits after any insured components have been allowed for.

The following table is based on the information provided to us and shows the adequacy of the insurance cover as at 1 July 2021:

	Death and TPD \$M
Lump Sum Death and TPD Benefits (A)	858.3
Less Aggregate Group Life Insurance (B)	54.9
Exposure (A – B)	803.4
Net Assets	887.9

For the Regional DBF as at 1 July 2021, the net assets are sufficient to meet the uninsured portion of the death and TPD benefits. The temporary disablement benefit provided by Regional DBF is also insured under an insurance policy.

On this basis the insurance coverage is considered to be adequate at the valuation date.

Section 6: Solvency and Funding Status Measures

There are several methods used to assess the current financial situation (i.e. funding status measures) of a defined benefit arrangement. These measures are dealt with below.

Vested Benefits

Under SPS 160, a fund (or a section of a fund) is in a “satisfactory” financial position if the assets cover the corresponding Vested Benefit entitlements of members.

The Vested Benefits represent the benefits payable on the review date if all members voluntarily resigned (if under 55) or retired (if over 55). The following table shows the progression of the Vested Benefits Index for the Regional DBF over the review period.

	Last Valuation \$M	This Valuation \$M
Net Assets (a)	1,036.3	887.9
Vested Benefits (b)	851.6	720.6
Vested Benefits Index (a)/(b)	121.7%	123.2%

As at 1 July 2021, the net assets exceeded the Vested Benefits and so the Regional DBF was in a satisfactory financial position. The ratio of the net assets to the Vested Benefits was 123.2%. At the previous valuation, this ratio was 121.7%. The ratio has improved mainly due to the favourable financial experience over the three year valuation period, with investment returns being greater than expected and salary increases being less than expected as outlined in Section 4.

Actuarial Value of Accrued Benefits

Another indication of the funding status is given by the ratio of the net assets to the Actuarial Value of Accrued Benefits (AVAB). This is called the Actuarial Value of Accrued Benefits Index (AVABI).

AVAB represents the value in today’s dollars of future benefits based on membership completed to the review date, allowing for future salary increases, investment earnings and expected incidence of payment. “Accrued Benefits” has the meaning given in Regulation 9.27 of the SIS Regulations.

Different superannuation funds can be expected to have different Actuarial Value of Accrued Benefits Ratios depending on the age and membership history of the members. A fully secured position is represented by a ratio of 100.0%. At this level, with the DBF being closed to new entrants and if no further benefits were allowed to accrue to current members, assets would be sufficient to meet all future benefit payments if the actuarial assumptions are borne out in practice.

The following table shows the progression of the Actuarial Value of Accrued Benefits Index over the review period.

	Last Valuation \$M	This Valuation \$M
Net Assets (a)	1,036.3	887.9
Actuarial Value of Accrued Benefits (b)	856.4	740.0
Actuarial Value of Accrued Benefits Index (a)/(b)	121.0%	120.0%

As at 1 July 2021, the net assets exceeded the Actuarial Value of Accrued Benefits. AVABI has decreased from 121.0% to 120.0% over the valuation period. If calculated using the assumptions at the previous valuation, AVABI would be 120.2% at this valuation.

Minimum Benefits

Under SPS 160, a fund (or section of a fund) is “solvent” if the net assets exceed the Minimum Requisite Benefits (MRB) of members, where the MRB is the portion of the benefit meeting the Superannuation Guarantee obligations as defined in LGIAsuper’s Benefit Certificate.

The following table shows the progression of the Minimum Benefits Index for the Regional DBF over the review period.

	Last Valuation \$M	This Valuation \$M
Net Assets (a)	1,036.3	887.9
Minimum Benefits (b)	836.6	661.2
Minimum Benefits Index (a)/(b)	123.9%	134.3%

As at 1 July 2021, the net assets exceeded the Minimum Benefits and so the Regional DBF was “solvent”. The Minimum Benefits Index has increased from 123.9% to 134.3% over the valuation period.

Shortfall Limit

The Trustee has set the Shortfall Limit for the Regional DBF as 98.0%. The shortfall limit is defined in paragraph 10 of SPS 160 as:

“... the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year.”

Should the Vested Benefits Index breach the Shortfall Limit, additional interim Actuarial investigations will be required with rectification plans to be put in place to address the unsatisfactory financial position.

We have reviewed this Shortfall Limits as part of this actuarial investigation and consider that the Shortfall Limit remains appropriate.

Benefits payable on Retrenchment

A specific retrenchment benefit is not defined in the Trust Deed for Regional DBF members. The benefit payable on retrenchment is the member's Vested Benefit. Members' Vested Benefits are 123.2% covered by net assets at the valuation date.

Benefits payable on Termination

The Trust Deed does not address the termination of either Regional DBF or fund as a whole.

Section 7: Valuation Contribution Results

It should be emphasised that the funding measures shown in Section 6 relate to the current position at the review date. A valuation which projects the benefits of each DBF is required to assess the adequacy of current contribution rates to provide defined benefits in the future. The results of the valuation are summarised in this Section.

Contribution Rates for future service benefits

Using the Attained Age funding method outlined in Section 4, we have calculated the present value of all expected benefits payable in respect of future membership after the valuation date ("future service benefits"). After allowing for the value of future member contributions, we then calculate the balancing employer contribution rate expected to be required (inclusive of contributions tax) to meet these future service benefits, as shown in the table below:

	\$000
Future Service Benefit Liabilities	71,580
<i>Less</i> Value of future member contributions	27,112
Benefit Liability to be funded from future employer contributions	44,468
Present Value of future salaries	452,286
Future employer contribution rate calculated (before tax)	9.8%
<i>Plus</i> Allowance for 15% contributions tax	1.8%
Total Employer Contribution Rate calculated	11.6% of salary

Adjustment for financial position at 1 July 2021

As the net assets of the Regional DBF exceed the value of past service benefits shown in Section 5, there is potential to reduce the employer contribution rate shown above.

The financial position of the Regional DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 121.7% at the last valuation to 123.2% at this valuation.

The relatively strong investment returns over the valuation period has also resulted in accumulation benefits rising relative to the defined benefits they are compared against when determining vested benefits. This relationship can change depending on the prevailing investment returns and the investment strategy adopted.

While there is scope to increase the employer contribution rate to the Regional DBF if a period of low investment returns were to occur in future, this has not occurred to date, with the financial position during those periods being managed by the Trustee through the setting of the Accumulation Comparison Rate applied to some accumulation accounts.

Recommended Contribution Rates

We recommend that the current employer contribution rates to Regional DBF be maintained as follows:

- 12.0% of salaries for members contributing at 6% of salary.
- 11.0% of salaries for members contributing at 5% of salary.
- Additional contributions to the ABF for Regional DBF members at the prevailing Superannuation Guarantee rate (currently 10.0%) of the excess of Ordinary Time Earnings over the Regional DBF salary.

Projection of vested benefits coverage

We have tested the impact of adopting the recommended employer contribution rates above, by projecting the cash flows and the build-up of the assets over the next three years, and comparing the assets to the projected levels of the Vested Benefits within the Regional DBF.

Projection Date	Regional DBF Assets \$million	Vested Benefits \$million	VBI %	% of liabilities that are Defined Benefit in nature
1 July 2021	887.9	720.6	123.2	7.0%
1 July 2022	816.3	675.5	120.8	6.1%
1 July 2023	747.0	617.9	120.9	5.9%
1 July 2024	676.9	547.3	123.7	5.7%

The projection shows a further increase in the Vested Benefits Index to 123.7% at 1 July 2024 if future experience of Regional DBF is in line with our assumptions. If the recommended employer contribution rates shown in this Section are paid, then I expect the Vested Benefits Index (VBI) to increase and to also remain above 100% over the three years to 1 July 2024, assuming the valuation assumptions are borne out in practice.

The financial experience over the next three years may differ from the valuation assumptions we have adopted and we have considered the sensitivity of these projections further in Section 8 following.

Recommended Future Review of Financial Status

The financial status of each DBF is sensitive to actual financial experience (principally, investment returns and salary increases) and membership movements. We therefore recommend that a check is placed on the Vested Benefits Index at least at each annual review date, and more frequently if required, in order to monitor the ongoing coverage of vested benefits. The next actuarial valuation is due at 1 July 2024.

As the Regional DBF matures and membership continues to decline, the prevalence of the accumulation style benefits is resulting in a steady increase in surplus levels within the Regional DBF. We recommend that the Trustee continue to monitor emerging levels of surplus and explore approaches/mechanisms through which the surplus can be effectively managed.

Section 8: Sensitivity Analysis and Material Risks

Sensitivity Analysis

The “gap” adopted in this valuation between the investment return (net of administration and investment fees and investment tax) and salary inflation assumptions is 1.5% p.a. Other assumptions could be used and the table below shows the impact of varying the “gap” between these assumptions on the Regional DBF’s financial position and the contribution rate calculated to provide future service benefits under the Attained Age funding method. No changes have been made to the demographic assumptions adopted for this valuation in the scenarios below.

	This Valuation Basis	Scenario 1 +1%	Scenario 2 -1%
The “gap” between net investment return and salary inflation assumptions*	1.5% p.a.	2.5% p.a.	0.5% p.a.
Actuarial Value of Accrued Benefits Index	120.0%	120.6%	119.3%
Attained Age Employer Contribution Rate to provide future service benefits	11.6%	11.5%	11.7%

* The results shown above vary the discount rate by 1% p.a.

It should be noted that the variations selected in the sensitivity analysis above do not indicate upper or lower bounds of all possible outcomes. Further analysis can be carried out if required.

Material Risks

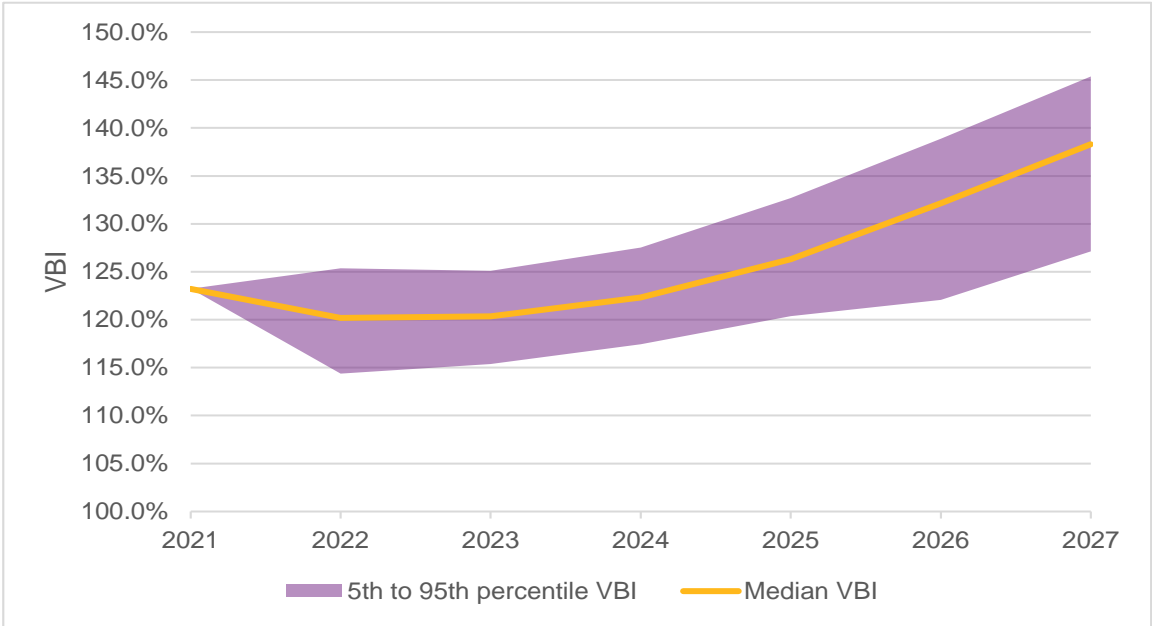
Salary Inflation

For this valuation we have adopted a salary inflation assumption of 3.0% p.a. However, if actual salary increases are greater than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements. Given the extent to which the various accumulation underpin benefits are applying at the valuation date, the Regional DBF funding position is currently not overly sensitive to salary inflation experience. Further analysis can be carried out if required.

Investment Returns

For this valuation we have adopted an investment return assumption (net of tax and investment management expenses) of 4.5% p.a. However, if actual investment returns are less than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements.

For example, the following graph highlights the sensitivity of the Regional DBF funding position (Vested Benefits Index) to different investment returns over the next five years. The purple area shows the variability of VBI for returns between the 5th and 95th percentile of our modelled returns.



Appendix A: Summary of Benefits

A.1 Regional DBF – Summary of benefits as at 1 July 2021

Membership

Queensland local government employees other than Brisbane City Council, Queensland Urban Utilities and associated employers. The Regional DBF is closed to new members.

Member Contributions

6% of salary after-tax, or 7.06% by salary sacrifice if the employer agrees.

A small number of members contribute 5% of salary, or 5.88% by salary sacrifice if the employer agrees. These members receive lower benefits (see Accrued Benefit Multiple below).

Final Average Salary (FAS)

FAS is generally the average of the member's superannuation salary over the final 12 months of employment.

Unless otherwise determined by the Trustee, FAS cannot be greater than 120% of the member's superannuation salary three years prior, unless the member's average salary over the last three years of employment is greater than 120% of their superannuation salary three years ago. In this situation, the three year average salary applies.

Accrued Benefit Multiple

The Accrued Benefit Multiple is equal to:

- 18% x Years of Membership after 1 January 1986; plus
- 13.5% x Years of Membership before 1 January 1986.

Where members contribute 5% of salary rather than 6% of salary, the 18% defined benefit scale is reduced to 15.75%.

Normal Retirement Benefit

Normal retirement is at any time from age 55 until attaining age 70.

The benefit payable is a lump sum equal to the greater of:

- FAS x Accrued Benefit Multiple; and
- The member's minimum retirement benefit, which is defined as the sum of:
 - the greater of FAS x Accrued Benefit Multiple from 1 January 1986 and the accumulation of member contributions plus 11% employer contributions (less deductions for fees and taxes) at the "accumulation comparison rate", and
 - the greater of FAS x Accrued Benefit Multiple to 1 January 1986 and the prior scheme accumulation together with the "accumulation comparison rate".

Resignation Benefit

A lump sum equal to the greater of:

- FAS x Accrued Benefit Multiple from 1 July 1992 x Discount Factor; and
- The accumulation of member contributions plus employer contributions at the Superannuation Guarantee rate from 1 July 1992 with interest at the "accumulation comparison rate" and deductions for taxes, fees and premiums.

The Discount Factor is equal to 100% less 2% for each year prior to age 55, subject to a minimum of 60%. For members prior to 30 June 1992 an additional benefit is provided based on a similar calculation.

Late Retirement Benefit

The retirement benefit is crystallised at age 70 and transferred to an accumulation account. All subsequent contributions go to this accumulation account.

Death and Total and Permanent Disablement (TPD) Benefit

A lump sum benefit applies to age 60 which in most cases is equal to the sum of:

- The portion of the Normal Retirement Benefit accrued to the date of death or TPD, but calculated using projected FAS (as defined in the Deed); and
- Projected FAS x 18% x Future years to age 60.

For some members, the age for projections is age 55 instead of age 60 above.

Total and Temporary Disablement (TTD) Benefit

Members under age 60 (or for some members age 55) who are working 14.5 or more hours per week on a permanent basis are eligible for a total and temporary disablement benefit based on 12.5% p.a. of the member's TPD benefit. This is paid as a monthly sum for up to 2 years after a 90 day waiting period. TTD benefits do not reduce the member's resignation or retirement benefits.

Failure of Health Benefit

Failure of health is defined as an injury or illness which, in the opinion of the Trustee, permanently incapacitates the member from carrying out his/her ordinary work with the employer, and any reasonably available and suitable alternative work with the employer, but does not constitute TPD.

The Failure of Health benefit is equal to the retirement benefit calculated at the date of retirement due to failure of health, inclusive of the Age Discount Factor.

Superannuation Guarantee Minimum Benefit

On all forms of exit, the benefit paid is subject to the Minimum Requisite Benefit which is an accumulation benefit as outlined in the Trust Deed.

Additional Accounts

Additional voluntary, rollover and surcharge offset accounts are paid in addition to all of the above benefits.

Appendix B: Details of Membership

Membership at valuation dates

Membership as at:	Number of Members	Total Salaries	Average Salary	Average Age	Average Completed M'ship	Average Entry Age
1 July 2021	1,306	\$104.1m	\$79,739	58.7	30.8	27.9
1 July 2018	1,972	\$142.2m	\$72,129	57.6	28.0	29.6

There were 8 members making lower member contributions of 5% of salary at 1 July 2021. Other members contribute at 6% of salary as outlined in Appendix A.

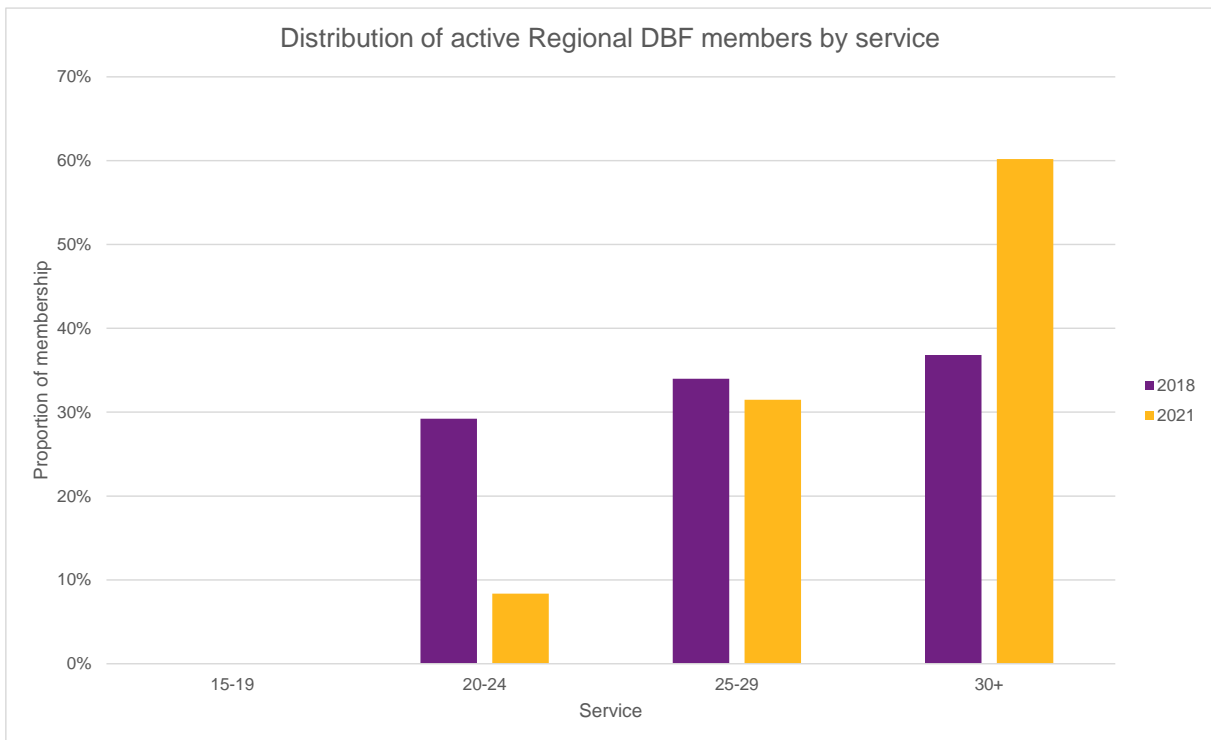
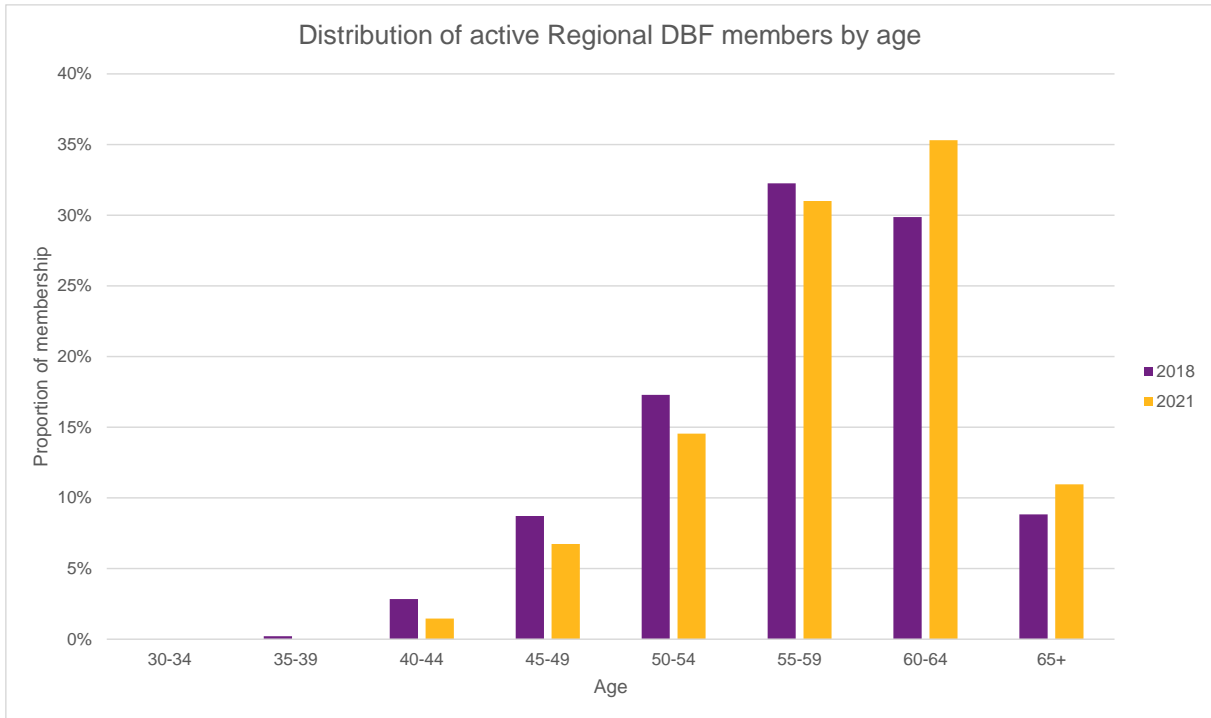
Approaching Retirements

In the next three years, 264 members of Regional DBF are expected to reach their Normal Retirement Date. The total of their vested benefits at 1 July 2018 is \$156.2m.

As at 1 July 2021, there are 143 members of Regional DBF who have passed their Normal Retirement Date. The total of their vested benefits as at 1 July 2021 is \$90.6m.

Distribution of Active Defined Benefit Membership

Age Band	Number of Members at 1 July 2018	Number of Members at 1 July 2021
35-39	4	0
40-44	56	19
45-49	172	88
50-54	341	190
55-59	636	405
60-64	589	461
65+	174	143
Total	1,972	1,306



Appendix C: Valuation Method and Assumptions

Valuation Method

The Attained Age Funding Method has been adopted, having regard also to the projected coverage of vested benefits. Further details are set out in Section 4 of this report.

Asset Value

Market value taken from the audited financial statements and DBF breakdown data at the valuation date.

Investment Returns

4.5% p.a. compound (net of investment and administration expenses and taxes).

Inflationary Salary Increases

3% p.a. compound.

Promotional Salary Increases

Nil.

Rates of Mortality and Total and Permanent Disability (TPD)

Examples of rates at which members leave the Regional DBF per year per 10,000 members:

Age Next Birthday	Death	TPD	
		Male	Female
35	10.3	4.5	2.9
40	13.4	8.2	6.2
45	19.0	16.4	12.0
50	28.7	31.2	22.1
55	43.8	54.0	39.7
60	66.0	93.8	58.6

Rates of Early Retirement

The number of members reaching a given age who are expected to retire are as follows:

Age Next Birthday	Number per year per 10,000 members	Age Next Birthday	Number per year per 10,000 members
55	1,000	63	1,500
56	700	64	1,500
57	700	65	4,000
58	700	66	4,000
59	800	67	3,000
60	1,000	68	2,500
61	1,200	69	4,000
62	1,300	70	10,000
63	1,500		

Rates of Leaving Service

Age Next Birthday	Number per year per 10,000 members	Age Next Birthday	Number per year per 10,000 members
35	750	50	450
40	750	55	0
45	525		

Rates of Retrenchment

A retrenchment rate of nil per 10,000 members has been assumed.

Future Expense Allowance

Investment expenses and administration expenses are allowed for in the investment returns shown above which are assumed to be net of investment and administration expenses.

Premium rates

Premium rates for the Regional DBF are assumed to be paid in line with the premium rates outlined in the most recent policy schedule dated 1 May 2021. A sample of the premium rates for Death and Total and Permanent Disablement cover are shown in the table below.

Age	Premium rate per \$1,000 of sum insured	
	Male	Female
40	2.65	3.94
45	4.34	6.00
50	7.11	9.50
55	13.70	16.78
60	23.93	25.34

New Entrants

No allowance for new entrants.

Taxes

Tax on investment income is allowed for in the Investment Returns shown above.

Tax on contributions has been allowed for as 15% of Company contributions reduced by allowable deductions (administration and insurance costs). No allowance has been made for GST or Reduced Input Tax Credits.

Surcharge Tax and Excess Contributions Tax

No allowance has been made for the Surcharge Tax and Excess Contributions Tax as it is assumed the Trustee will offset any tax payable against the benefits of the relevant member, if the member does not reimburse LGIAsuper for the tax payable.

Appendix D: Actuarial Statements required under SPS 160 for Regional DBF

The following statements are made for the Regional Defined Benefit Fund (DBF) which is part of LGIAsuper in response to Prudential Standard SPS 160:

1. These statements relate to the Regional DBF as at 1 July 2021.
2. The value of the assets at 1 July 2021 used to assess the long term employer contribution rates to the Regional DBF was \$887.9 million based on audited financial statements. This asset value excludes any amount held to meet the Operational Risk Financial Requirement.
3. It is my opinion that the value of the Regional DBF's assets in point 2 are sufficient to meet the value of the Regional DBF's liabilities in respect of Accrued Benefits at the review date. These liabilities are 120.0% covered while vested benefits are 123.2% covered.
4. The assumptions and valuation methods used to determine the Accrued Benefit liabilities shown in point 3 are considered appropriate for this purpose.
5. The recommended employer contribution rates payable as a result of this valuation are:
 - 12.0% of salaries for members contributing at 6% of salary.
 - 11.0% of salaries for members contributing at 5% of salary.
 - Additional contributions to the ABF for Regional DBF members at the prevailing Superannuation Guarantee rate (currently 10.0%) of the excess of Ordinary Time Earnings over the Regional DBF salary.
6. Within the meaning of SIS Regulation 9.03, I consider that the financial position of the Regional DBF is satisfactory at 1 July 2021 and, provided employer contributions are made at the recommended rates above and the valuation assumptions adopted are borne out in practice, the Regional DBF is likely to remain in a satisfactory financial position over the three years following 1 July 2021.
7. The current Shortfall Limit of 98% for the Regional DBF is considered to still be suitable.
8. As at 1 July 2021, the Regional DBF's assets were sufficient to cover the corresponding Minimum Benefits of \$661.2 million by 134.3%.
9. All Funding and Solvency Certificates that were required or were material during the period of the investigation have been obtained.

10. The projected likely future financial position of the Regional DBF during the three years following the valuation date and based on my best estimate assumptions and recommended contribution rates is as follows:

Projection Date	DBF Assets \$millions	Vested Benefits \$millions	VBI %
1 July 2021	887.9	720.6	123.2%
1 July 2022	816.3	675.5	120.8%
1 July 2023	747.0	617.9	120.9%
1 July 2024	676.9	547.3	123.7%

11. I consider that an Actuary is likely to be able to certify the solvency position of the Regional DBF in any Funding and Solvency Certificate that may be required under the Superannuation Industry (Supervision) Regulations during the three year period commencing from 1 July 2021 based on the current level of Superannuation Guarantee and increases from 10.0% to 12.0% over the period to 1 July 2025.



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