

Actuarial Valuation of Employee Benefits

Impact of Social Security Code and COVID 19

Presentation at WIRC of ICAI

By

Date: 18-04-2021 Time: 11 am to 12:30 pm

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Agenda

Introduction to Actuarial Valuation

KAP Insights - COVID-19 & the Impact

The Code on Social Security, 2020

Actuarial Valuation Assumptions - Analysis and Impact

Actuarial Valuation - Calculation Example

Practical points in Actuarial Valuation

Q&A and Open Forum Discussion

Introduction to Actuarial Valuation



Introduction

Employee Benefits



Short Term

Other Long Term



Post Employment

Termination



Defined Benefit (DB)

- Fixed Formulae based Benefits
- Unknown cost for employer
- Majority financial risk borne by the employer

Defined Contribution (DC)

- Fixed contributions
- No benefit guarantee
- Known cost for employer
- Majority financial risk borne by the employee



Actuarial Valuation of Employee Benefits

Gratuity Eligibility as per 10 Employees

Leave Provisions as per Shops Establishment Act

Para 70 of AS 15/ Para 72 of Ind AS 19 – Gratuity Provision even service less than 5 years

AS 15 & Ind AS 19 - Provision as per Projected Unit Credit Method

Detailed Disclosure to Notes to Accounts



KAP INSIGHTS
COVID-19 & THE IMPACT

➔ Impact of COVID-19 on Employee Benefits



The analysis conducted:

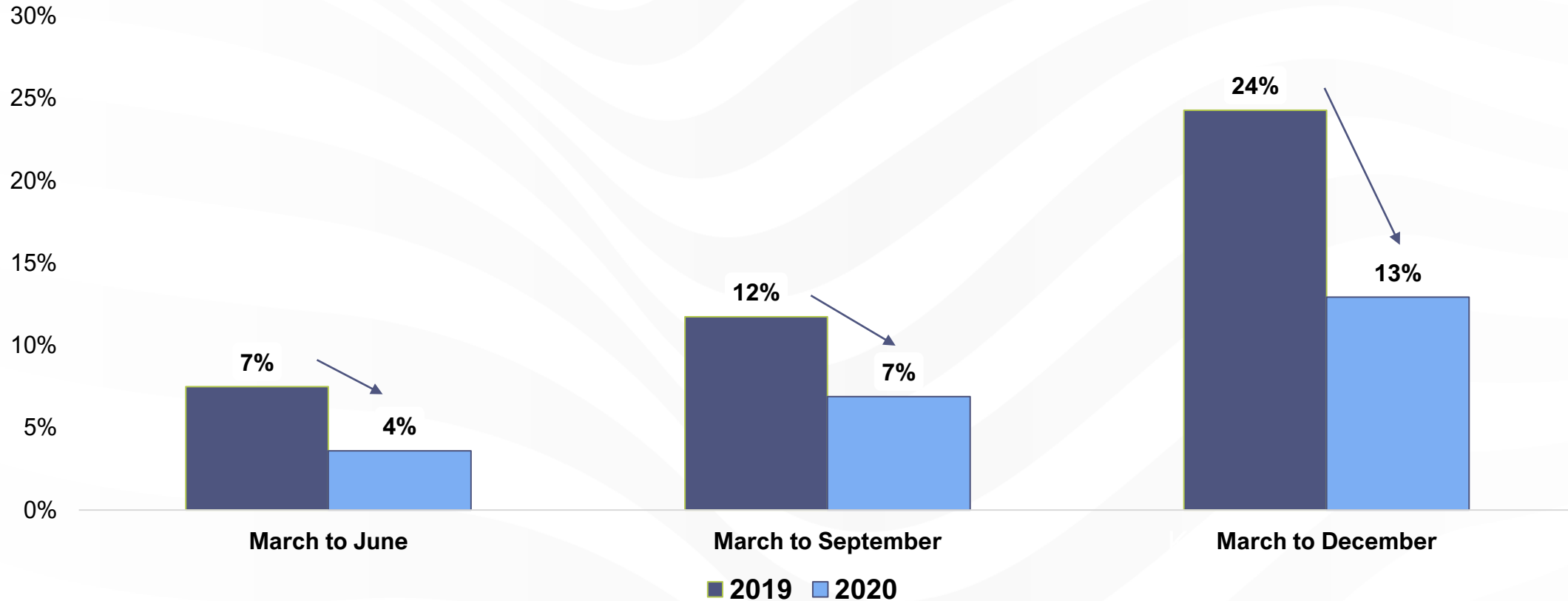
- FY 2019 v/s FY 2020 - Q1
- FY 2019 v/s FY 2020 - H1
- FY 2019 v/s FY 2020 - 9M

Between 550,000 and 650,000 employees



Pattern of Leavers and New Joinees

Attrition Rate as percentage of opening members

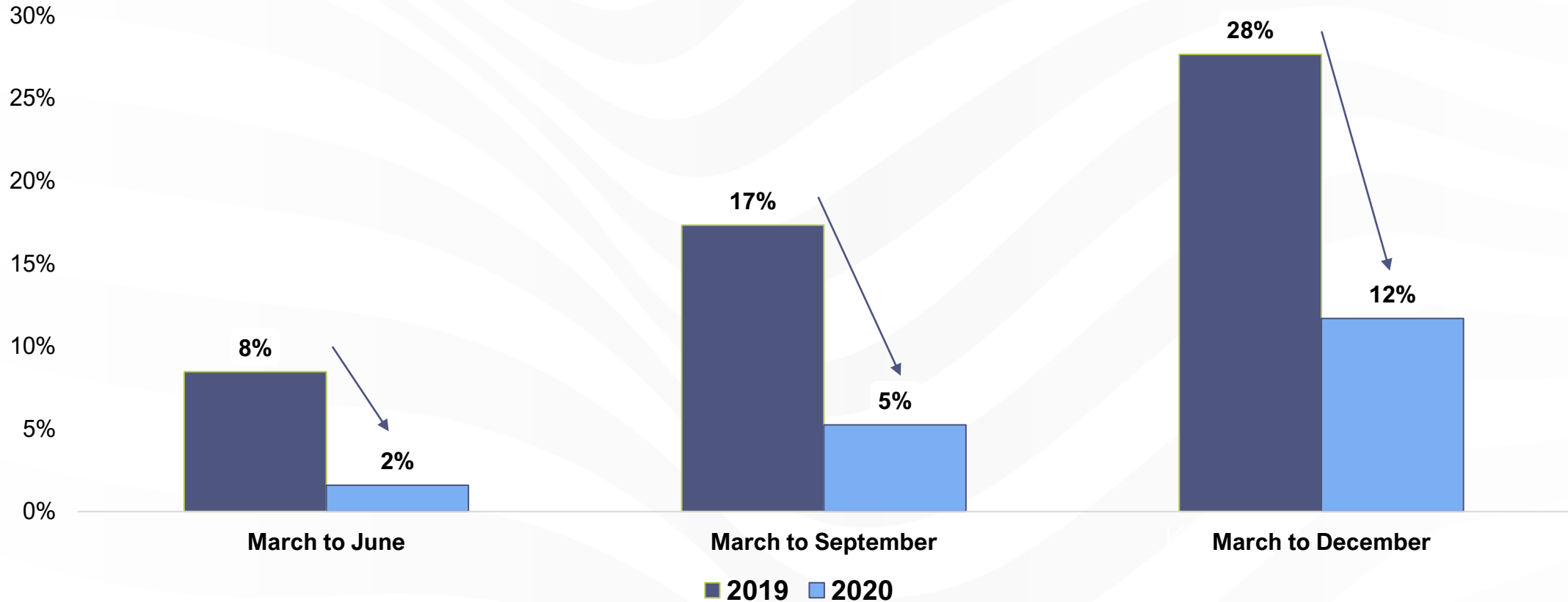


Reduction in attrition over the first 2 quarters, 3rd quarter slightly higher attrition.



Pattern of Leavers and New Joinees

New Joinees as percentage of opening members

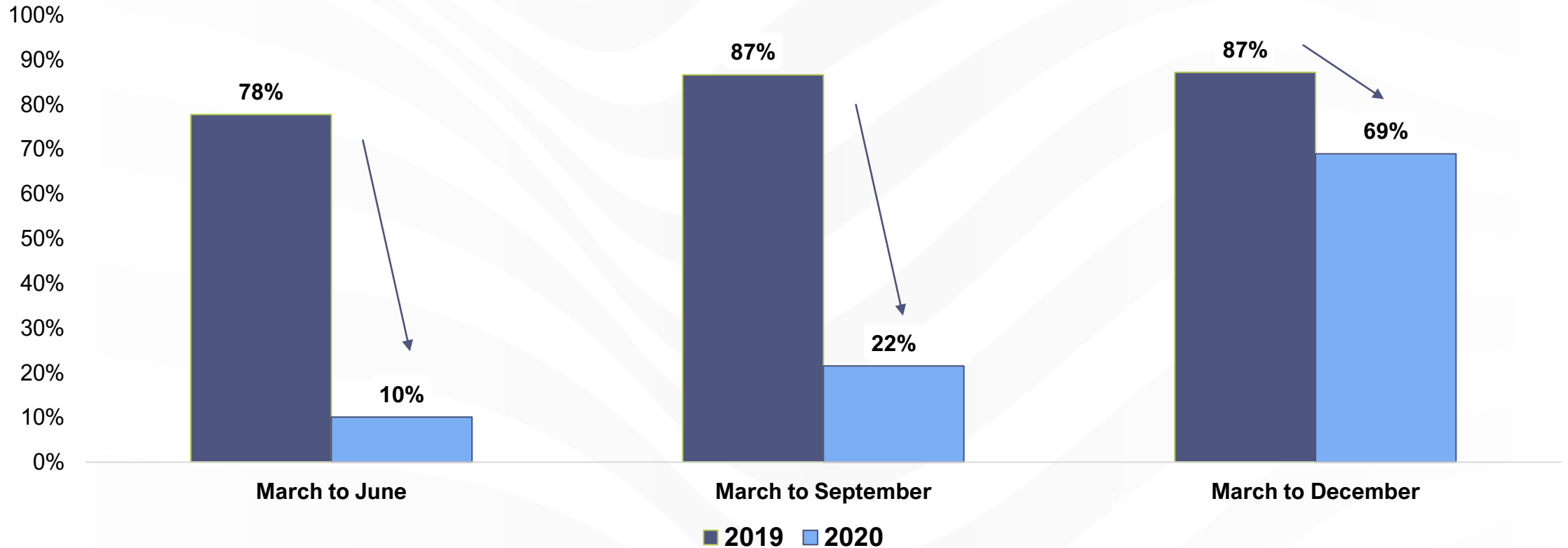


Fewer New Joinees in the current year compared with 2019, slightly improved in Q3.



Pattern on Salary Movement

% of Members getting Increase in Salary

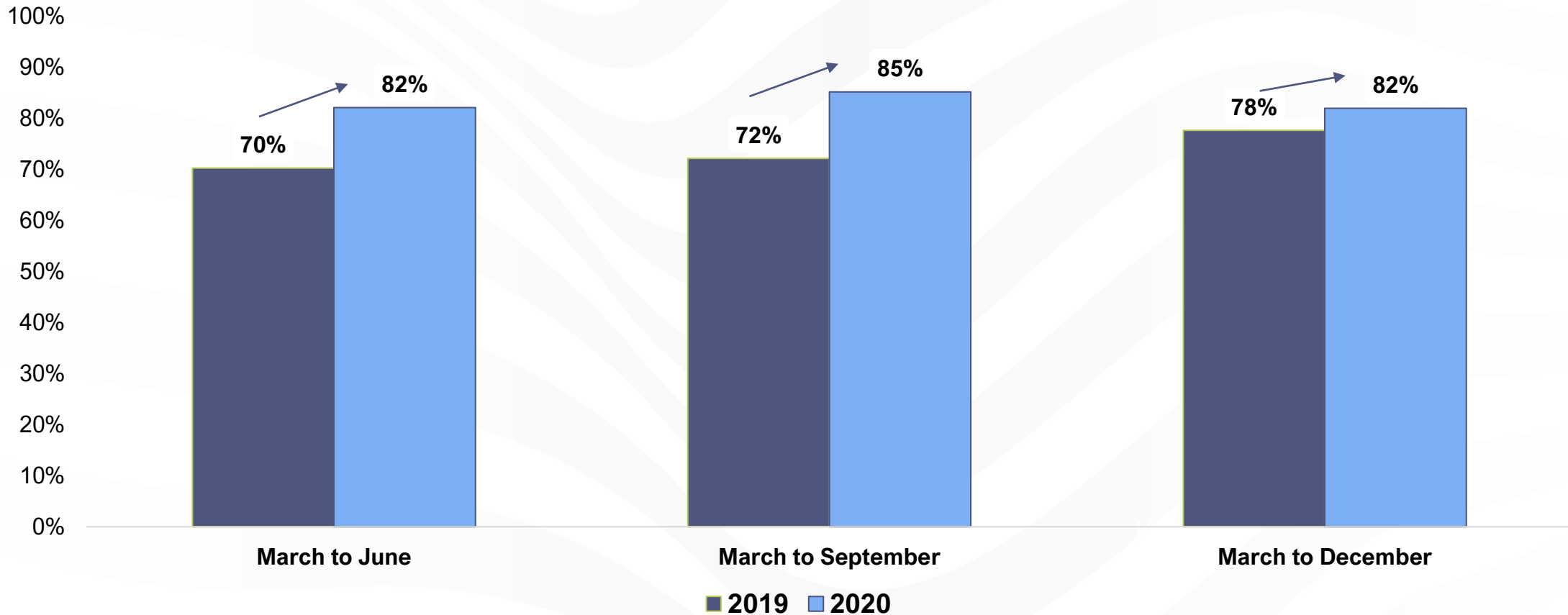


Significantly few members received any salary increment till H1. This gap has reduced by Q3 end.



Pattern on Accumulated Leave Days

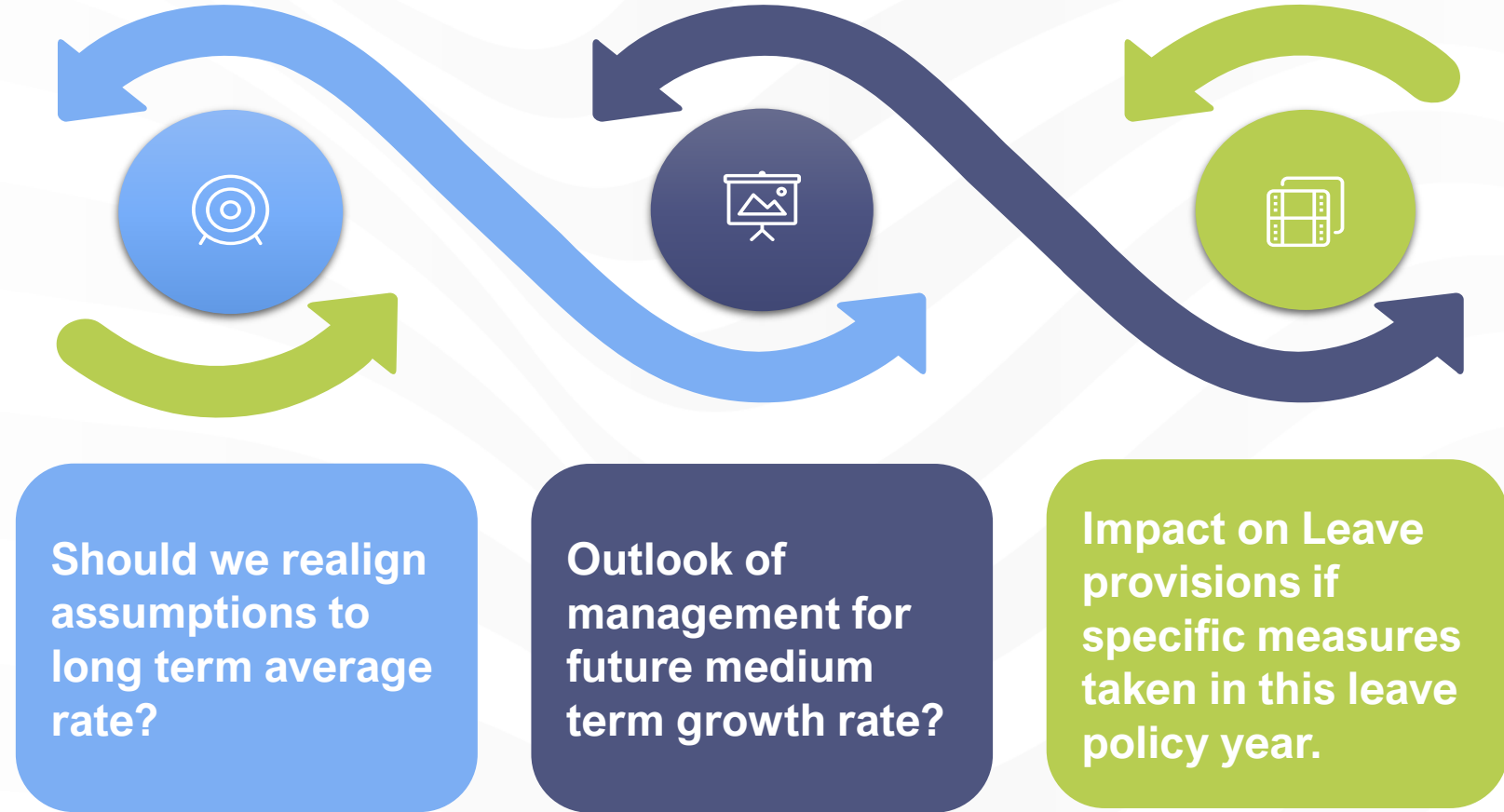
Increase in Leave Days



Over 80% of employees having an increase in accumulated leave balances in 2020, up from 70% in 2019



What's Next Post Unlock?



The background of the image consists of a series of wavy, horizontal lines in various shades of blue and purple, creating a textured, liquid-like effect. The lines are more densely packed in the center and become more sparse towards the edges.

**THE CODE ON
SOCIAL SECURITY, 2020**



The Code on Social Security, 2020

The Employees' Compensation Act, 1923

The Employees' State Insurance Act, 1948

The Employees' Provident Funds and Miscellaneous Provisions Act, 1952

The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959

The Maternity Benefit Act, 1961

The Payment of Gratuity Act, 1972

The Cine-Workers Welfare Fund Act, 1981

The Building and Other Construction Workers' Welfare Cess Act, 1996

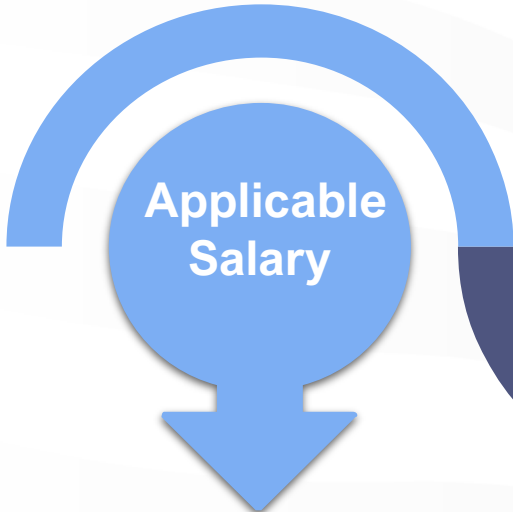
The Unorganised Workers Social Security Act, 2008



The Code
on Social
Security,
2020

➔ Key Changes - Chapter V “Gratuity”

Minimum Vesting criteria relaxed from 5 years to 3 years for Gratuity Eligibility



Definition updated from Basic + DA to 'Wages'

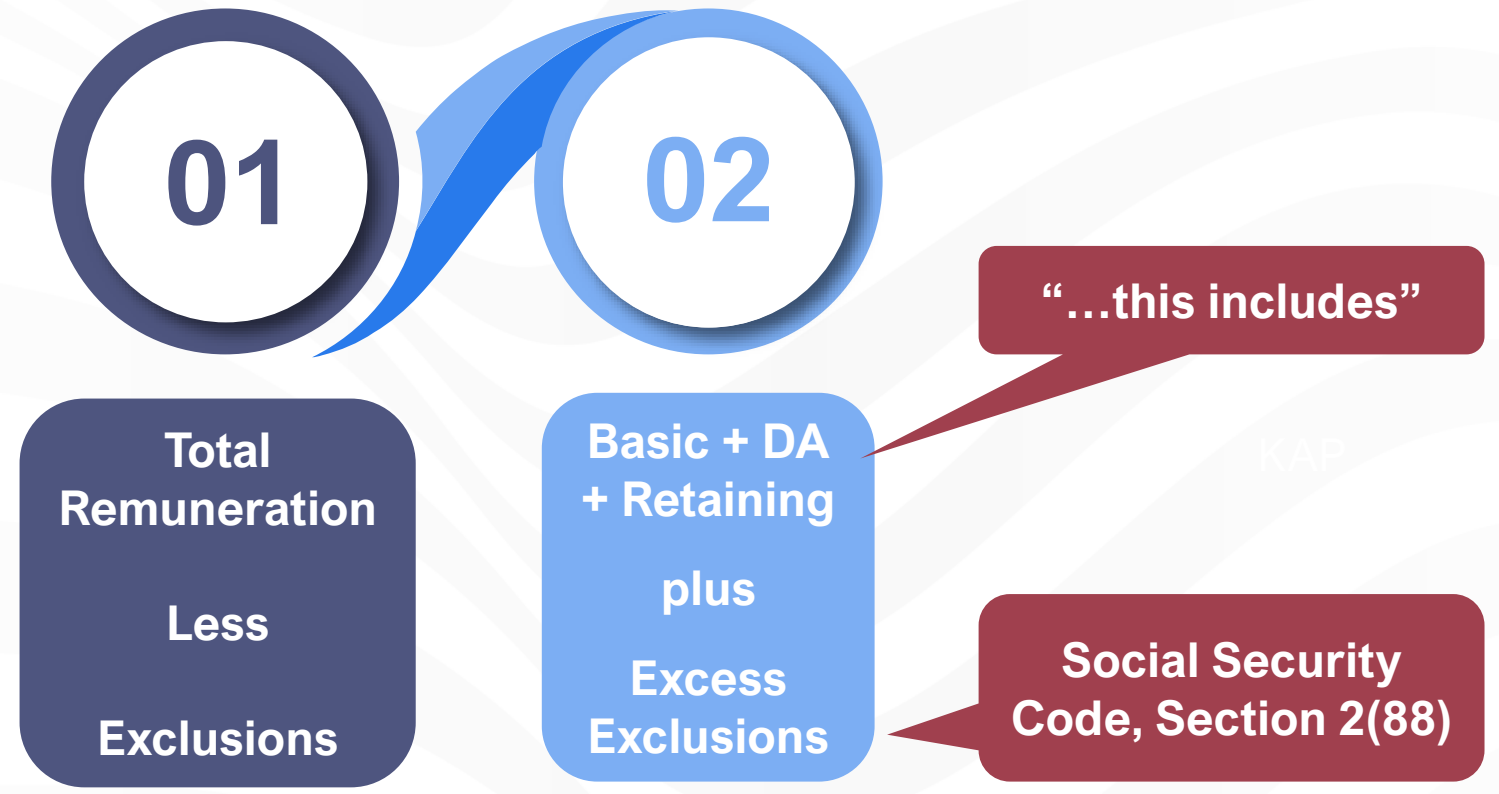


No Minimum vesting criteria





“Wages” definition



The specified exclusions, however may not exceed 50 percent of all remuneration, and in the event of exceeding, such excess amount will be added in "wages"



“Wages” definition - Scenarios

Pay Component	SSC Act Exclusion	Current	01	02
Basic Pay (35% CTC)		420,000	420,000	420,000
HRA	Y	210,000		
LTA	Y	75,000		
Conveyance	Y	120,000		
PF Employer Contributions	Y	50,400		
Gratuity	Y	20,202		
NPS Contributions	Y	42,000		
Special allowance		262,398	262,398	
Variable Bonus	?	300,000		
CTC incl. Bonus		1,500,000		
CTC No Bonus		1,200,000		
Wages for Gratuity (p.a.)		420,000	682,398	600,000
Wages for Gratuity (p.m.)		35,000	56,867	50,000
If Bonus considered...				
Wages for Gratuity (p.a.)		420,000	982,398	750,000
Wages for Gratuity (p.m.)		35,000	81,867	62,500

57% of CTC

65% of CTC



About the study

1,000+ companies in 2020

**31 March
data**

2016-2020





Basic to Gross Ratios – Year on Year

Year	Less than 25%	From 26% to 35%	From 36% to 49%	From 50% to 65%
2020	3%	16%	49%	32%
2019	4%	15%	48%	33%
2018	3%	19%	48%	30%
2017	4%	18%	48%	30%
2016	2%	17%	49%	32%

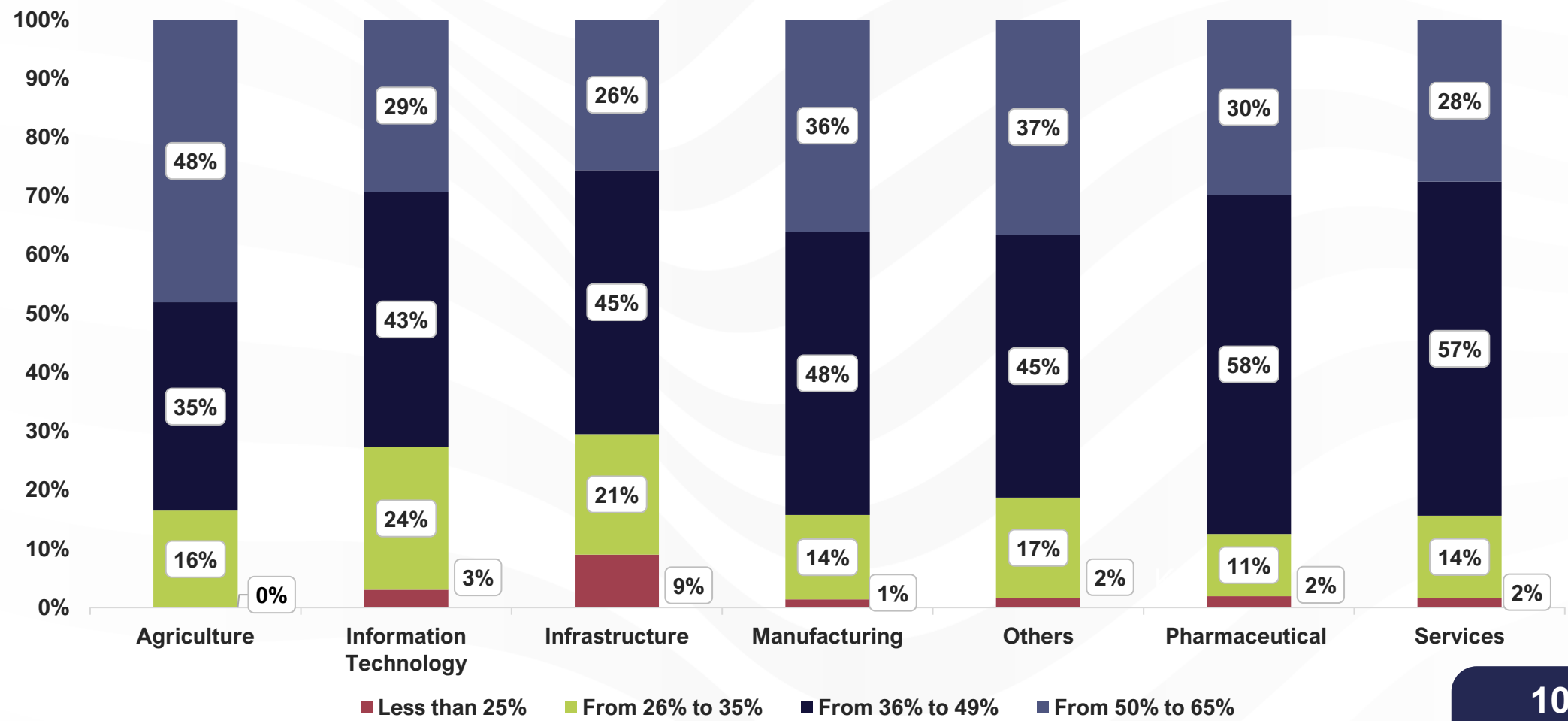
Percentage of companies with the following Basic to Gross Ratios

Companies may face an increase in the deemed “wages” for benefit calculations. For e.g. if current ratio is 40% the deemed wages would increase by 25%.

**Under
Interpretation
#2**



Basic to Gross Ratios – Industry Wise



**1000+
Companies
in 2020**



Impact of Social Security Code on Gratuity Provisions – Macro level

Sector	Gratuity Defined Benefit Obligation at 31.03.2020 (INR Cr)	Approx. Percentage increase
Agriculture	148	35%
Information Technology	435	49%
Infrastructure	333	41%
Manufacturing	894	38%
Others	363	36%
Pharmaceutical	558	28%
Services	624	29%
Grand Total	3,355	36%

**1000+
Companies
in 2020**

While calculating the above increase in Gratuity liability, we have considered change only in applicable wages and have kept other variable such as data, actuarial assumptions, and scheme constant as per each company's previous valuation as on 31-03-2020



Impact of Social Security Code on Gratuity Provisions – Salary Definition

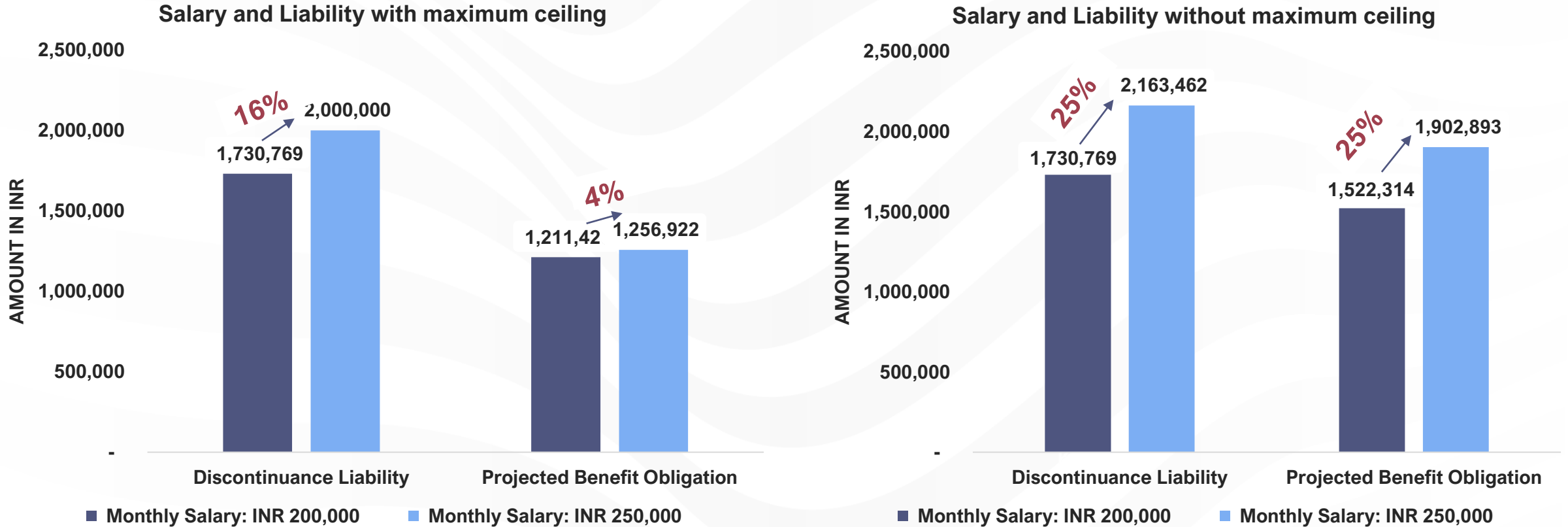
Example

- Monthly Basic +DA: INR 200,000
- Monthly Wages (SSC): INR 250,000
- Age: 42 years
- Service: 15 years

Valuation Assumptions

- Financial Assumptions
 - Discount Rate : 8.00% p.a.
 - Salary Escalation : 6.00% p.a.
- Demographic Assumptions
 - Mortality Rate – IALM (2006-08)
 - Attrition Rate – 10.00% p.a.

➔ Impact of Social Security Code on Gratuity Provisions – Salary Definition



Impact – Past service cost / Actuarial Loss?



Impacts of Wages Definition on Other Benefits



Leave encashment impact depends on The Shops and Establishment Act in respective states



Impact on PF and ESIC contributions may be limited



Will be pertinent to see if NPS contribution tax allowances and salary definition may change

Actuarial Valuation Assumptions Analysis and Impact

Discount Rate

Based on Expected Working Term of Obligation/ Expected Future Service

Source – FBIL (mostly used by RBI regulated entities)

'Fixed Income Securities' tab under 'GSEC'

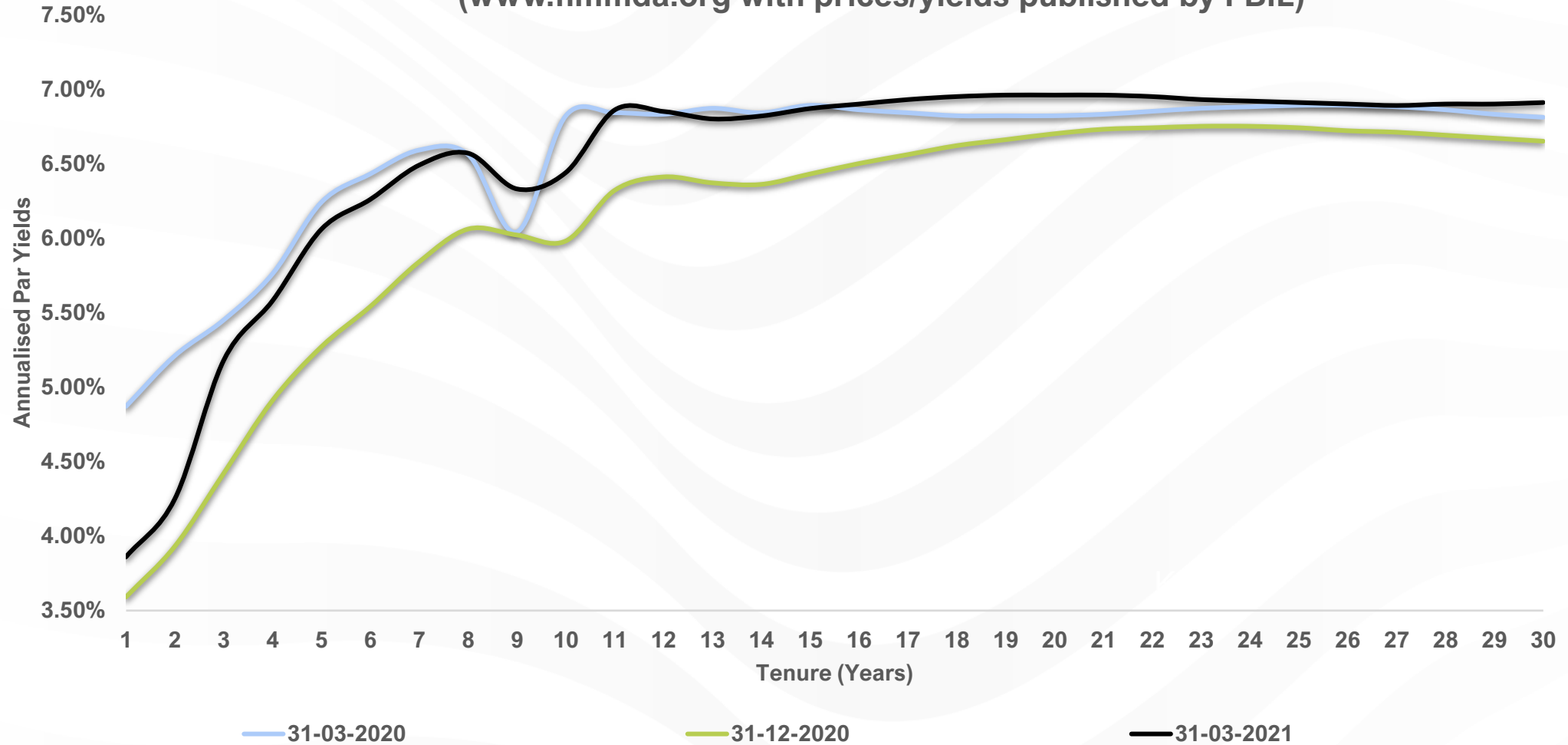
Select required date in from and to, download G-sec excel file

Go to sheet >>Par-Yield. We need to select annualized rates.



Discount Rate Trend

Annualised Par Yields on G. Secs
(www.fimmda.org with prices/yields published by FBIL)





Salary Escalation & Attrition Rate

Can be based on past trend and allow for future outlook

Assumption analysis at regular intervals

Category wise?

Short term/ long term

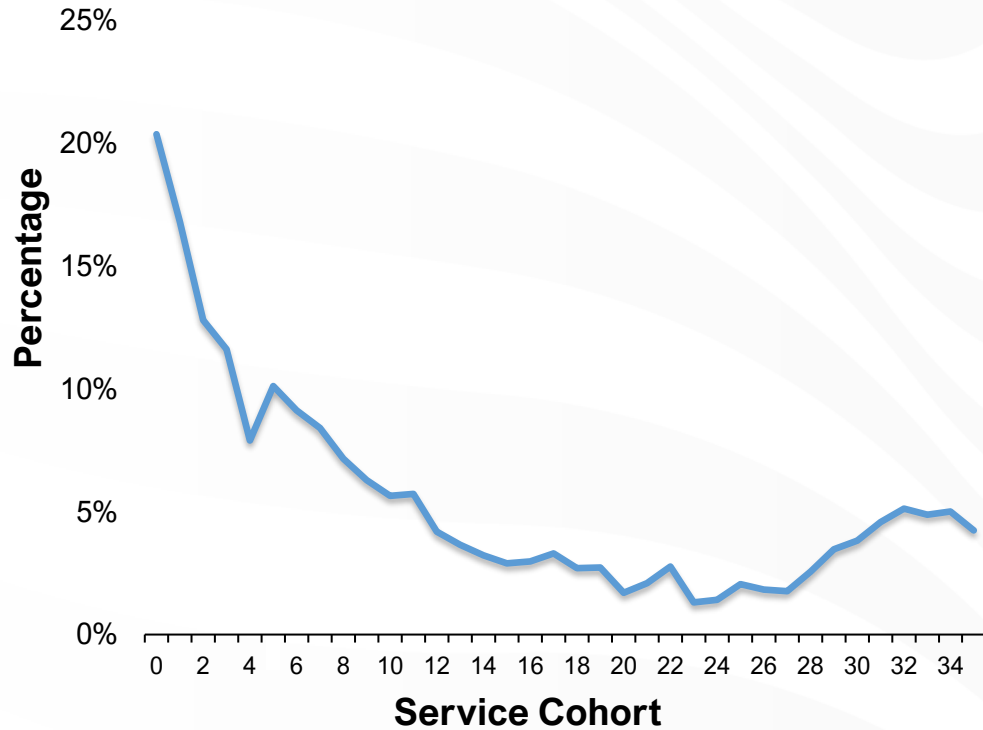
Service Specific/ Age Specific

Comments

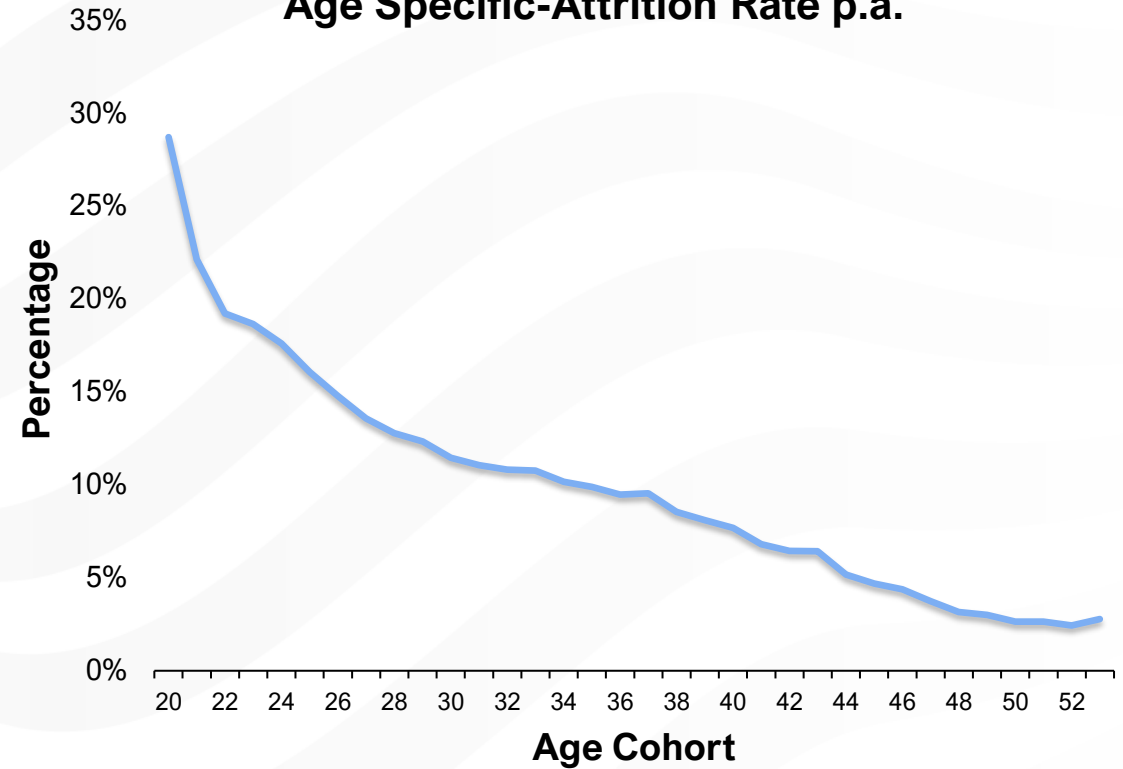


Attrition Rate – Analysis Results

Service Specific-Attrition Rate p.a.



Age Specific-Attrition Rate p.a.



Attrition rate lower for employees with lower service,
Attrition rate high at the younger ages.



While in Service Leave Availment Rate

The availment is expected leave taken in the future years out of the current accumulated balance.

Should be valued on CTC

Can be based on past trend and allow for future outlook

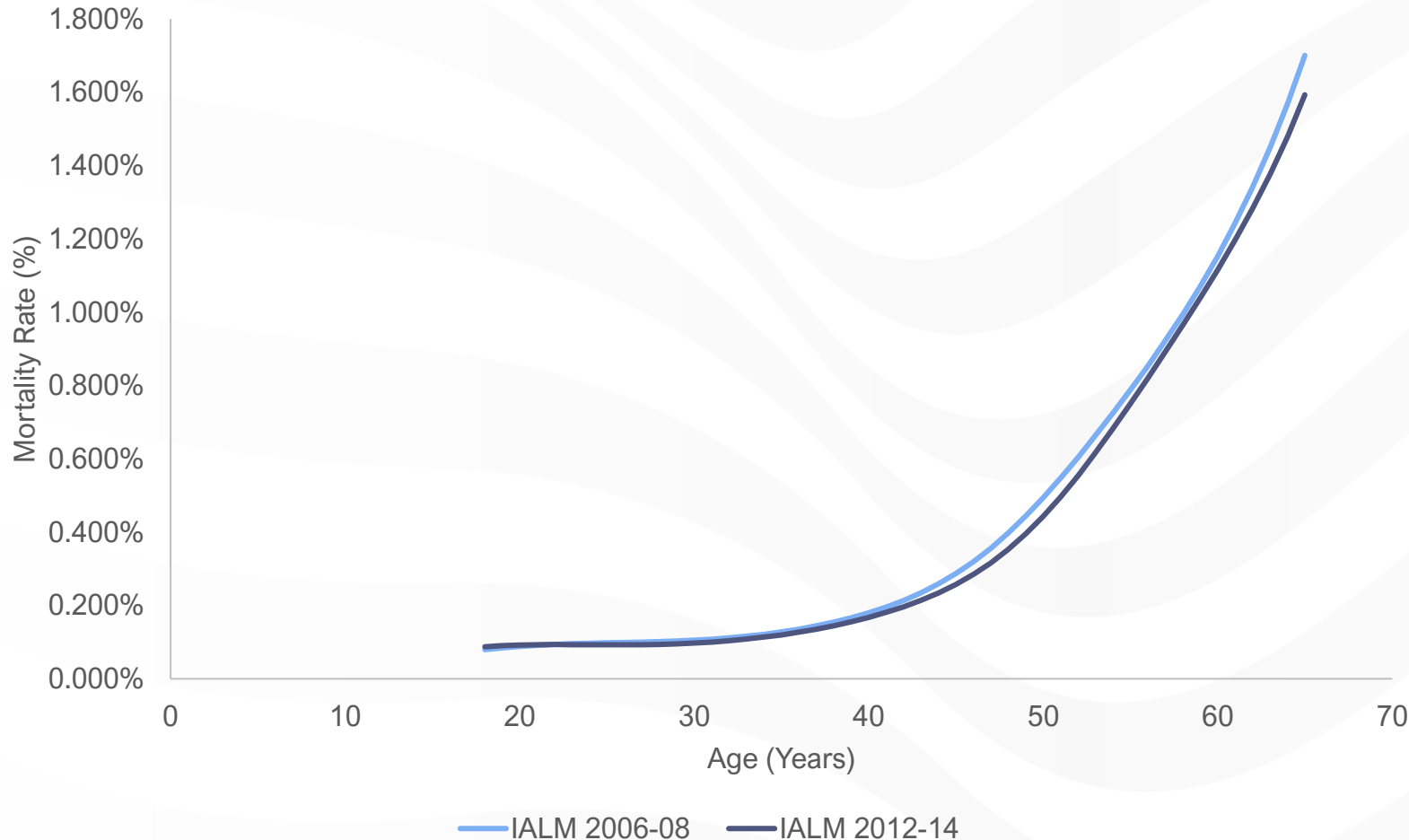
(Leave Aailed - Leave Credited)/Opening Leave Balance

(Applicable only when aailed days are greater than the current leave credited, else availment rate is 0%)

**Alternative method - (Closing Leave Balance – Opening Leaves Balance)/
Opening Leaves Balance**

Mortality Rate : Pre-Retirement

Comparison of Mortality Rates over IALM 2006-08 and 2012-14 over ages 18-65



Indian Assured Lives Mortality 2006-08 Ultimate

Indian Assured Lives Mortality 2012-14 Ultimate

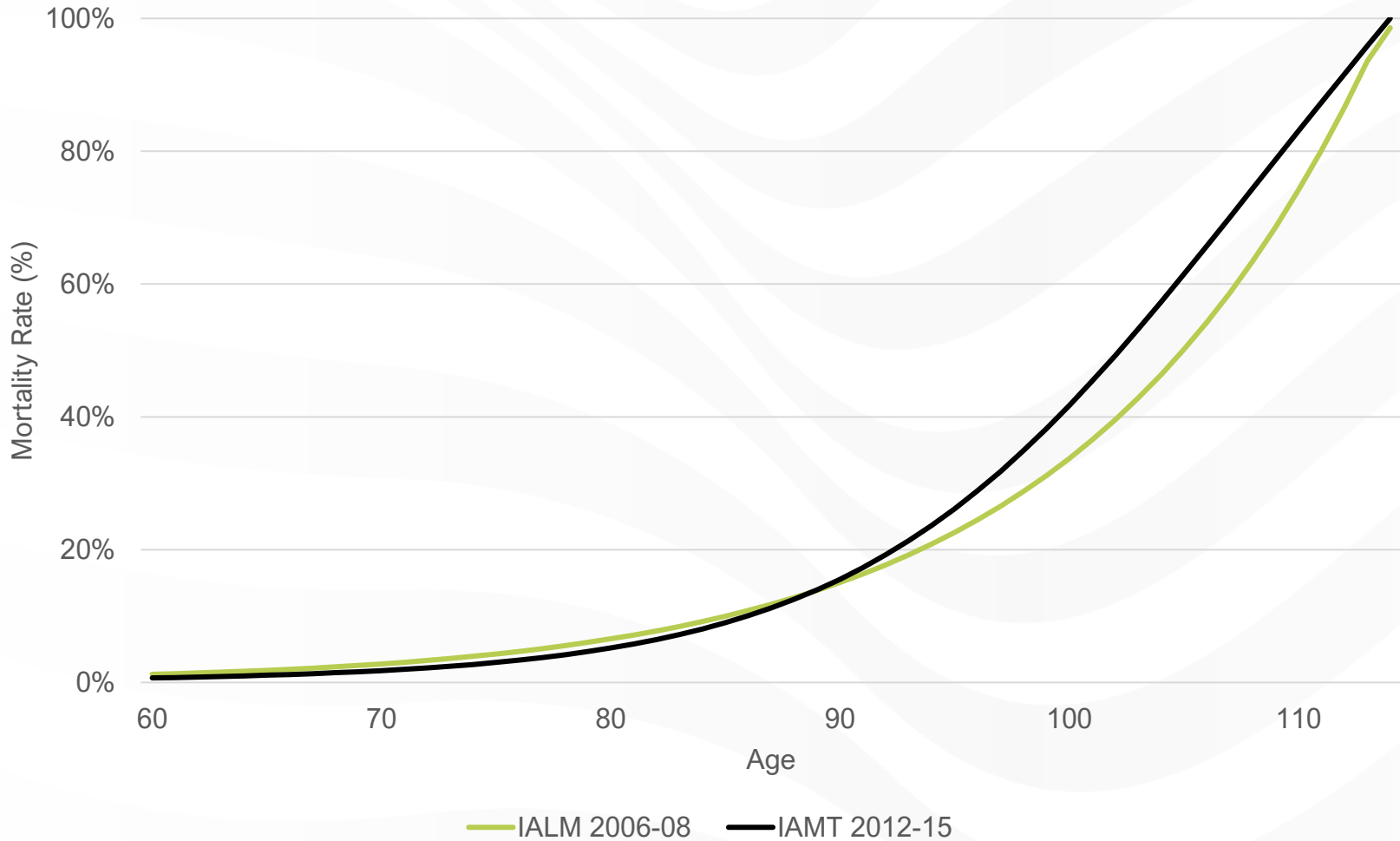


Male Insured Lives Medically underwritten



Mortality Rate : Post-Retirement

Comparison of Mortality Rates over IALM 2006-08 and IAMT 2012-15 over ages 60 and above



Indian Assured Lives Mortality 2006-08 Ultimate

Indian Individual Annuitant's Mortality Table (2012-15)

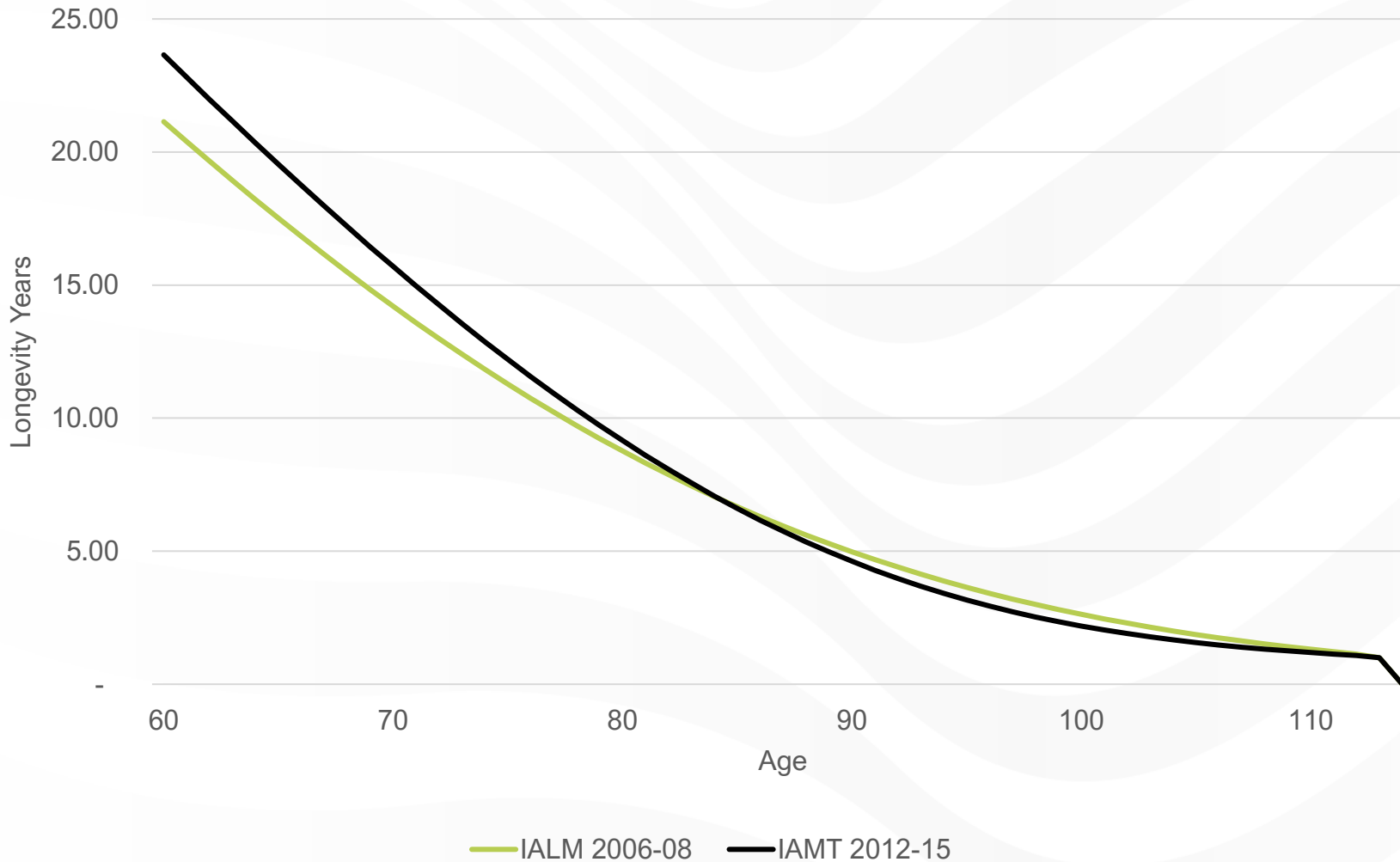


- All Genders
- Effective From 1st April, 2021
- Longevity increase by 2.61 years at age 60 years



Mortality Rate : Post-Retirement

Comparison of Longevity (Life Expectancy)
IALM 2006-08 and IAMT 2012-15 over ages 60 and above



Indian Assured Lives Mortality 2006-08 Ultimate

Indian Individual Annuitant's Mortality Table (2012-15)

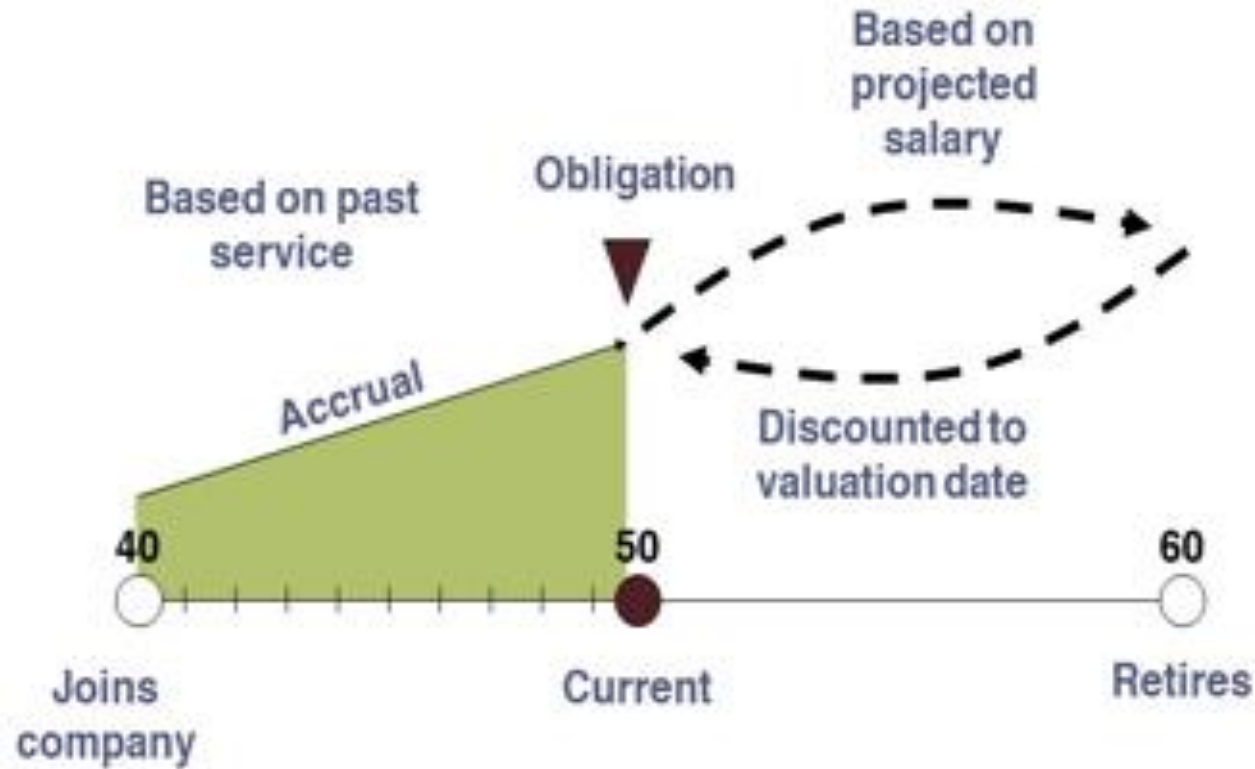


- All Genders
- Effective From 1st April, 2021
- Longevity increase by 2.61 years at age 60 years

Actuarial Valuation Calculation Example



Actuarial Valuation Method



Calculated for each:

- Type of benefit payment
- Projected year till retirement age
- Employee

$$\text{Obligation} = \text{Projected Benefit} \times \text{Probability} \times \text{Discounting}$$



Actuarial Valuation Calculation Example

Example

- Monthly Eligible Salary: INR 85,000
- Age: 32 years
- Service: 2 years

Valuation Assumptions

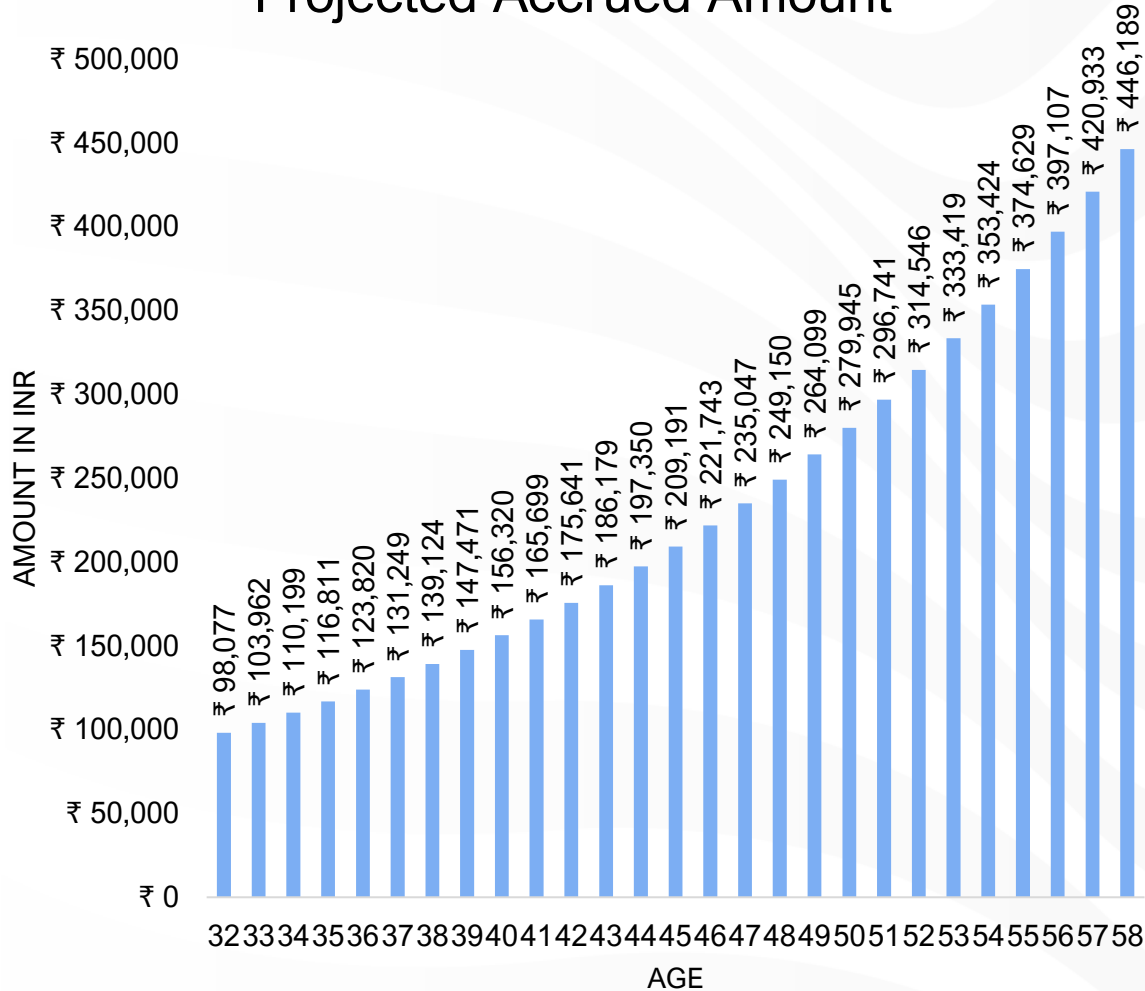
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 - Attrition Rate – 10.00% p.a.

Accrued Amount = $15/26 * 2 * 85,000$ capped at INR 20 Lakhs = INR 98,077

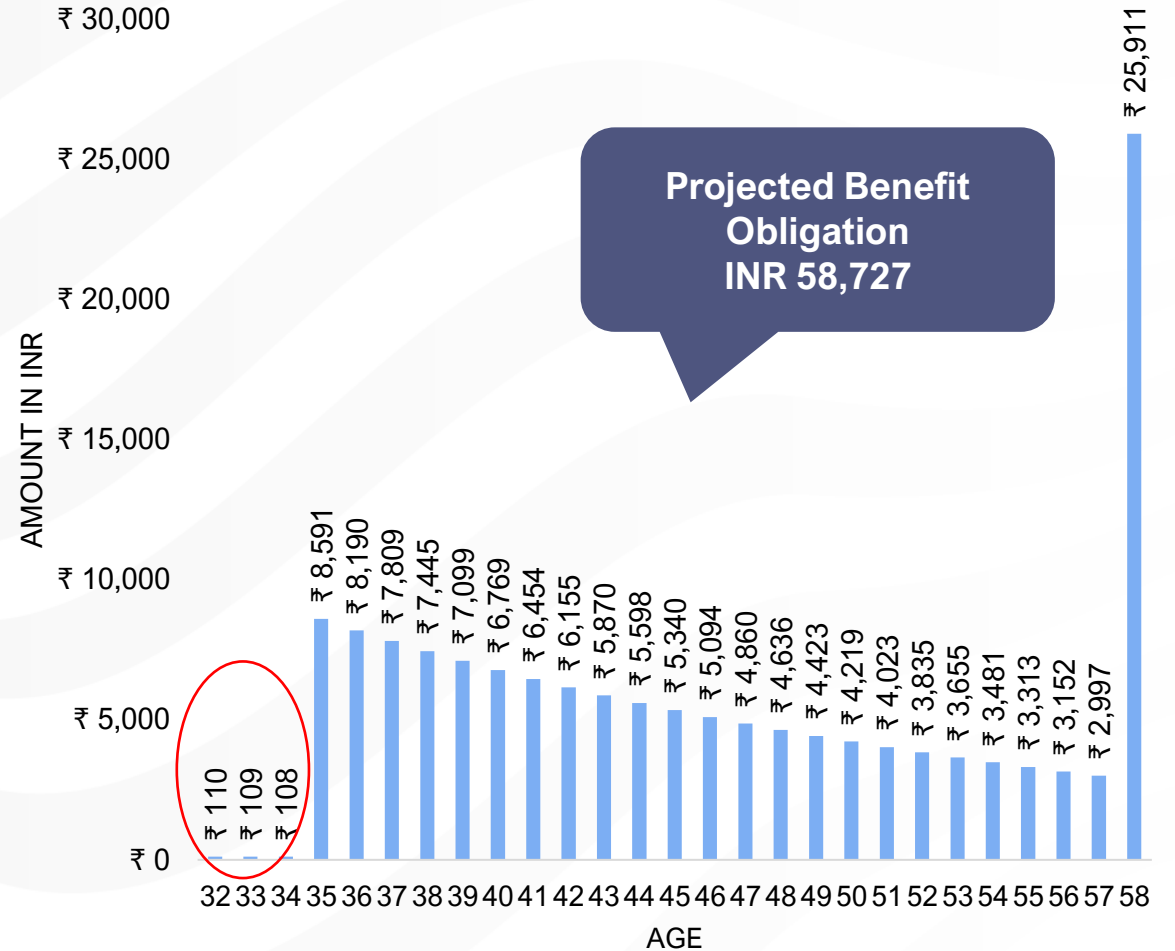


Actuarial Valuation Calculation Example

Projected Accrued Amount



Expected Payout





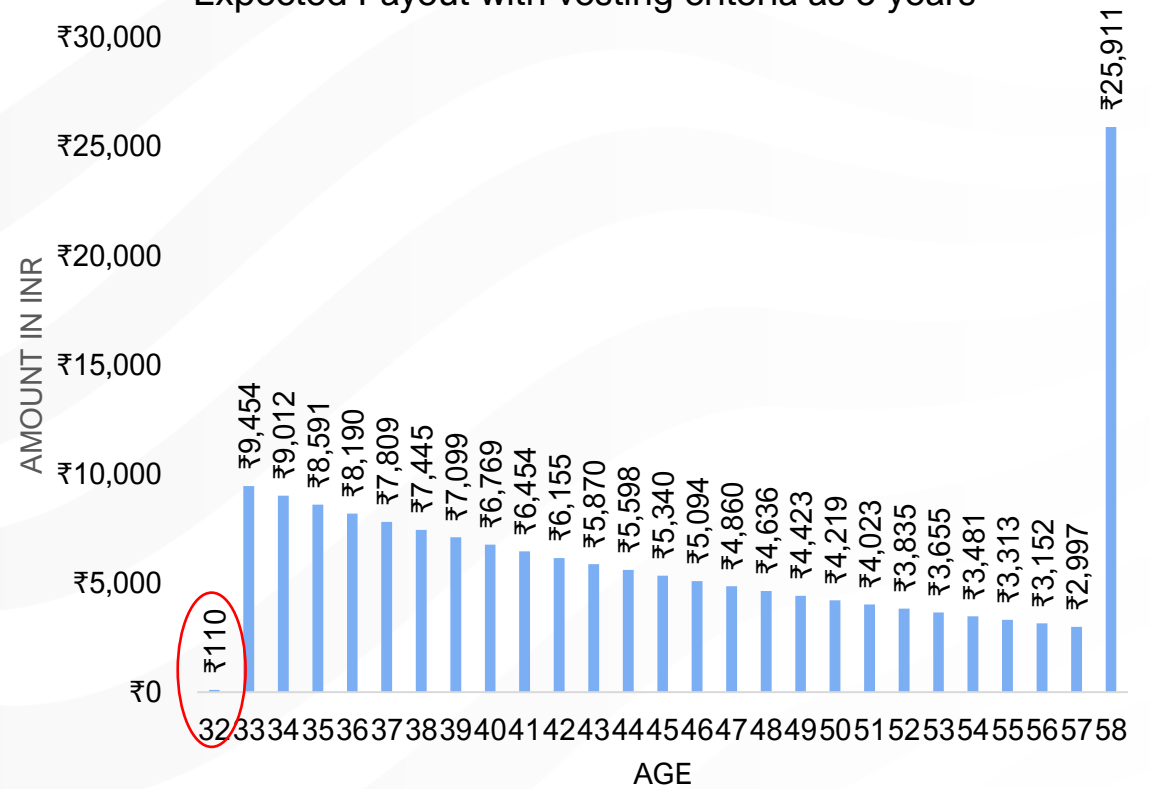
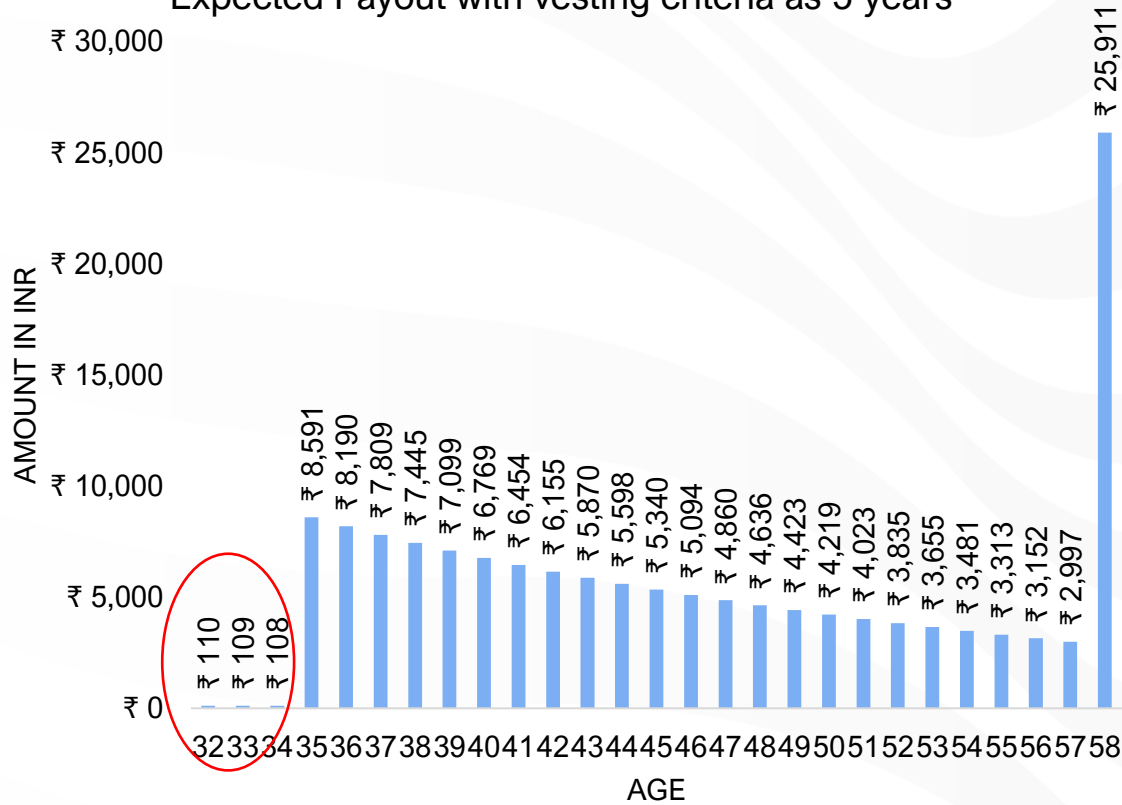
Impact of Change in Vesting Criteria

Projected Benefit Obligation INR 58,727

Projected Benefit Obligation INR 75,013

Expected Payout with vesting criteria as 5 years

Expected Payout with vesting criteria as 3 years



Expected cashflow for – Fixed term contract employees - ?

Practical aspects in Actuarial Valuation



Practical aspects in Actuarial Valuation





Common Errors Found by FRRB in Implementation of AS 15 Employees Benefits

Non-provisioning of Gratuity (Matching Principle)

Inadequate disclosure in policy pertaining to liability for superannuation fund (Para 45)

No disclosure or inadequate disclosures pertaining to para 120

Defined Benefit Plan wrongly treated as Defined Contribution Plan

Non-Disclosure of para 47 (expense for Defined Contribution Plan)

Inadequate disclosure pertaining to para 65 (Use of PUCM Method)

OPEN FORUM DISCUSSION



Food for thought - Open Discussion

Wages definition - Statutory Bonus v/s Variable Bonus ?

PF Interest – On Opening Accumulated Balance
or Current year contribution interest only ?

Impact of change in Gratuity Wage definition under Social Security
code (Past Service Cost/ Other Comprehensive Income) ?

Companies likely to restructure CTC?

Discount Rate as Single G-Sec or Term Structure of G-Sec?

ANY QUESTIONS?

→ Our Solutions for Employee Benefits



Financial Insights

- **Actuarial valuations** under Indian and Global Accounting Standards
- **Financial projections** for management and funding purposes
- **Cashflow projections** for asset-liability assessments
- **Trend and experience analyses** for appropriateness of assumptions



Governance and Administration

- **Advise** on Retirement Trusts set up and ongoing operations
- **Regulatory advice**
- **Trust Documentation** drafting and approvals
- **Trust accounting and secretarial support**
- **Project management** of Trust operations
- **Funding** vendor selection
- **Trustee Training workshops**



Design and Structure

- **Design** new employee benefits
- **Review** existing designs to optimize
- **Assess** cost implications of proposed changes



Communication

- **Draft** handbooks / rules
- **Presentation** to employees



We work for you, wherever your business takes you!

Thank You!





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