EMPLOYER RATES

The Hows and The Whys

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IMRF™

Employer Rates: The Hows and The Whys

Agenda

I. IMRF Structure

II. Calculating Pension Costs

III. Methodology for Distributing Costs

IV. The Five Parts of Employer Rates

V. Additional Information

VI. Questions & Answers

IMRF Structure

IMRF is the administrator of an agent multi-employer public employee retirement system:

- Provides retirement, death, and disability benefits.
- Neither funded nor managed by the state.
- Each employer funds its own employees' retirement benefits.

2,976
DIFFERENT EMPLOYERS

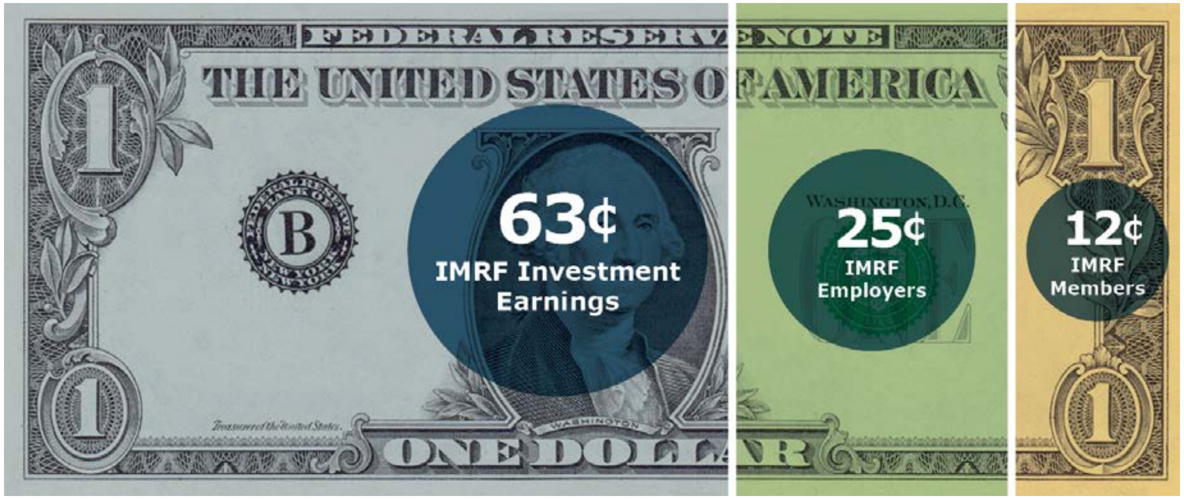
173,968
PARTICIPATING MEMBERS

112,762
BENEFIT RECIPIENTS

IMRF Structure

Three sources of revenue fund IMRF retirement benefits:

1) Investment Earnings
2) Employer Contributions
3) Member Contributions



IMRF Structure

IMRF retirement benefits are paid under a **defined benefit plan** with **fixed member contributions**.

- ❑ Both are established by state law.

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IMRF Structure

An independent actuary calculates each employer contribution rate every year:

- Shown as a percent of participating payroll.

Calculating Pension Costs

Independent actuaries determine pension costs using four types of information:

This information is combined to determine how much each employer must contribute yearly.

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Calculating Pension Costs

Member Demographics

- IMRF pensions are determined by a formula:

The member's Final Rate of Earnings (FRE) multiplied by a percentage for each year of service.

- The percentage varies, depending on which IMRF plan (Regular, SLEP, or ECO) is involved.

- Important member information considered:

Salary history

Total years of service

Gender

Age

Calculating Pension Costs

Actuarial Assumptions

The Defined Benefit Cost Equation:

$$B - E = EC + ER + I$$

B	=	**Benefits** ***(Fixed)***
E	=	**Expenses** ***(Variable)***
EC	=	**Employee Contributions** ***(Fixed)***
ER	=	**Employer Contributions** ***(Variable)***
I	=	**Investment Income** ***(Variable*)***

***7.5% is assumed**

Calculating Pension Costs

Actuarial Assumptions

Actuarial Assumptions are a formal set of estimates of ***what will*** happen to IMRF members:

- ➢ Death
- ➢ Refunds
- ➢ Single/Widowed
- ➢ Longevity

The actuary compares IMRF's actual experience to our assumptions every three years.

The actuary recommends any necessary changes in the assumptions to the IMRF Board of Trustees.

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Calculating Pension Costs

Actuarial Assumptions

The actuary uses eight principle assumptions to determine rates:

1) **Investment Return**
2) **Retirement Age**
3) **Marital Status (*Upon retirement*)**
4) **Mortality of Active (*Non-retired*) Members**
5) **Mortality of Retired Members**
6) **Disability**
7) **Separation/Refunds**
8) **Payroll Increases**

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Calculating Pension Costs

Employer Information

Two important pieces of information
the actuary must know about each employer:

1) The Employer's IMRF Assets.

2) The Amortization Period for the Unfunded Liability.

Both have a significant effect on the employer rate.

Calculating Pension Costs

Employer Information

1) The Employer's IMRF Assets:

- Each employer has a reserve account with IMRF, used to pay retirement benefits for employees.

- Items that increase or decrease the reserve account:

  - **Employer retirement contributions.**
  - **Interest credited or charged.**
  - **Adjustments.**
  - **Residual investment income or loss.**
  - **Employer's share of the cost of an annuitant's pension.**

Calculating Pension Costs

Employer Information

2) The Amortization Period for the Unfunded Liability:

The **Unfunded Liability** is the estimated cost of retirement benefits earned to date that ***have not*** been funded.

A portion of the unfunded liability *(determined by the employer's structure)* must be paid each year.

Employers without taxing authority *(participating instrumentalities)* amortize their unfunded liability over a 10-year period.

Many IMRF employers have an unfunded liability due to several reasons such as past service adjustments and additional factors.

For most employers, the unfunded liability is amortized over a closed period then declines yearly. In 2016, it is 27 years.

Methodology for Distributing Costs

After the actuary estimates the cost of future benefits, a closed-period amortization period is used to determine future rates to pay the estimated cost.

- The possibilities are infinite. Examples include:
  - Contribute the whole amount when a member joins.
  - Contribute what’s needed in the five years between ages 50 and 55.
- The actuarial profession has developed several widely accepted methodologies.

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Methodology for Distributing Costs

IMRF uses a method called "Entry Age Normal" to manage pension costs:

Entry Age Normal is the method IMRF uses to calculate employer retirement rates.

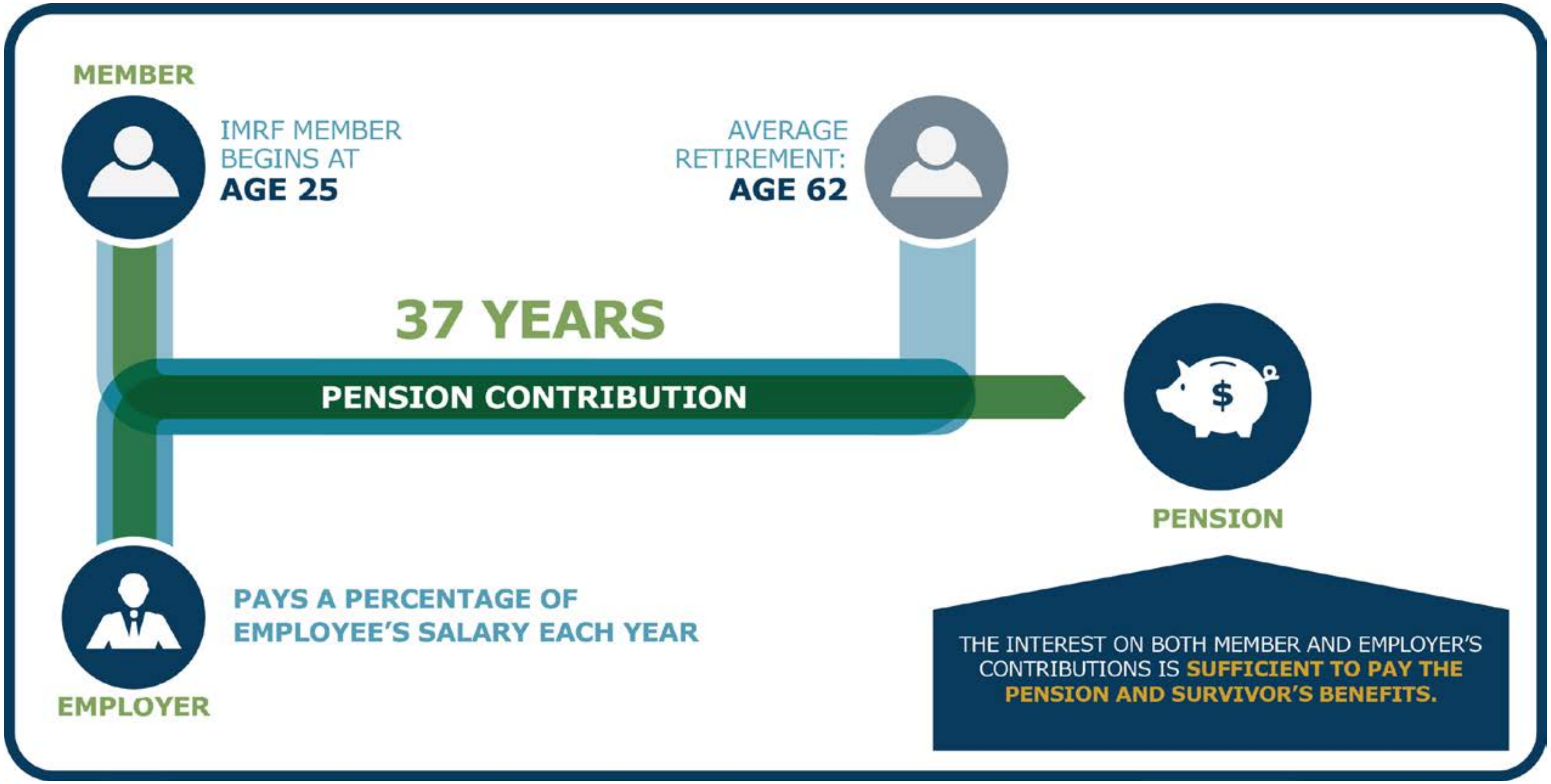
The cost of each individual's pension is allocated on a level percent of payroll between entry age *(the time employment starts)* and the assumed retirement date.

The cost includes expected future service and salary increases.

The goal is to spread the cost over the career of the member as a level percentage of payroll.

Methodology for Distributing Costs

IMRF uses a method called "Entry Age Normal" to manage pension costs:



The Five Parts of the Employer Rate

Your Employer Contribution Rate consists of five parts:

Each part is calculated separately and used for specific purposes designated by state law.

Normal Retirement Contributions

Death Benefit Contributions
(Active Members)

Disability Benefit Contributions

Supplemental Retirement Contributions
("13th" Payment)

Unfunded Liability Contributions

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The Five Parts of the Employer Rate

Normal Retirement Contributions

Normal Retirement Contributions

(also known as "normal cost") is the percentage of payroll needed to fund the year's portion of the expected total cost of future pension benefits for the average IMRF member.

The actuary uses the "Entry Age Normal" method to distribute the expected future cost over the member's career as a percentage of payroll. That is the normal cost.

Each participating employer pays a normal cost rate based on the weighted average of its Tier 1 and Tier 2 projected wages.

For 2016, the average normal cost is:

- **6.84%** for Regular employers
- **11.95%** for SLEP employers
- **16.49%** for ECO employers

The Five Parts of the Employer Rate

Death Benefit Contributions
(Active Members)

Death Benefit Contributions fund the death benefit paid when IMRF members die in service.

The contributions from all employers are pooled to pay the death benefit.

The rates are calculated separately for each employer based on the average age of its employees.

The average death benefit contribution rate for 2016 is 0.15% of participating payroll for Regular, SLEP and ECO plans.

The Five Parts of the Employer Rate

Disability Benefit Contributions

Disability Benefit Contributions are used to pay IMRF disability benefits.

Only employer contributions are used to pay disability benefits.

Disability benefit contributions are pooled. All employers pay the same rate.

The disability benefit contribution rate for 2016 is 0.14% of participating payroll.

The Five Parts of the Employer Rate

Supplemental Retirement Contributions
("13th Payment")

Supplemental Retirement Contributions are used to pay the additional "13th Payment" every year in July.

The supplemental retirement rate is set by state statute and is 0.62% of participating payroll.

The Five Parts of the Employer Rate

Unfunded Liability Contributions

Unfunded Liability Contributions are used to eliminate any difference between your employer's IMRF assets and its projected liabilities.

The actuary calculates the projected cost, *or the present value*, of the expected retirement benefit for each IMRF member.

Current and projected ***member*** contributions and interest are then subtracted.

Current and projected ***employer*** contributions and interest are then subtracted.

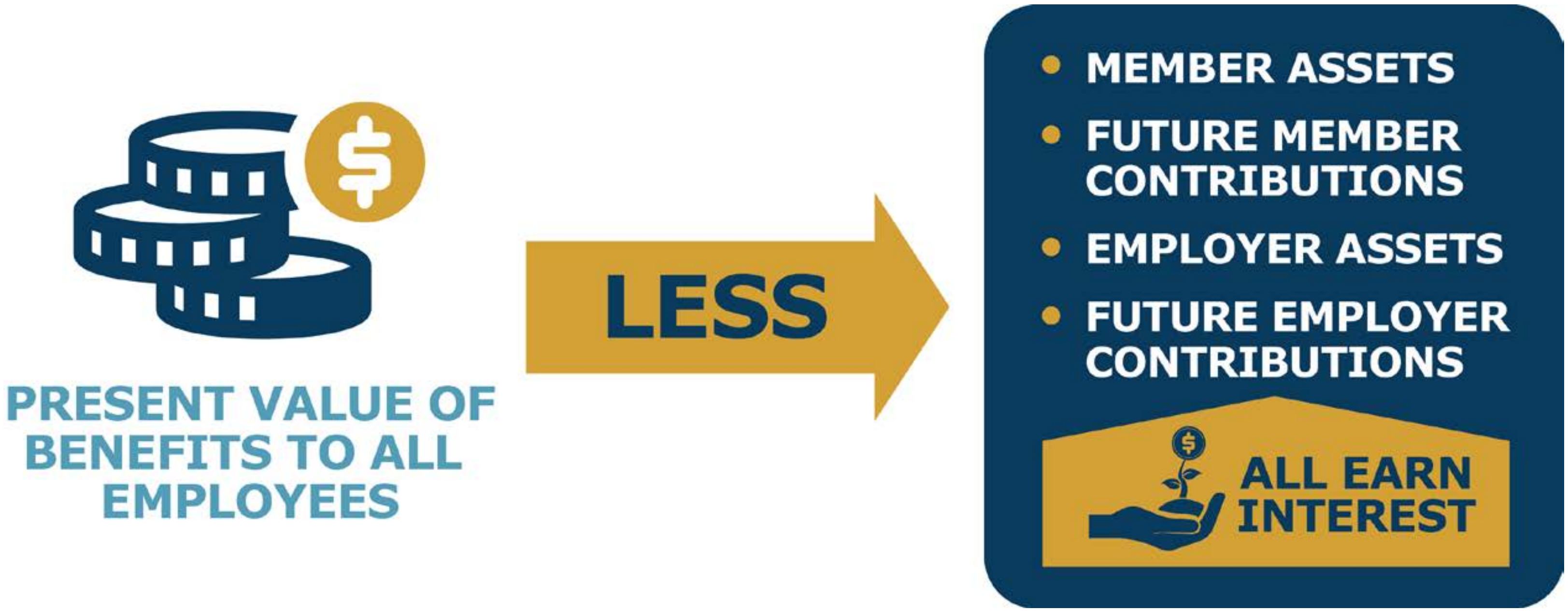
The remainder is the employer's unfunded liability.

The Five Parts of the Employer Rate

Unfunded Liability Contributions

Unfunded Liability Contributions

The unfunded liability is calculated for each employer as follows:



The Five Parts of the Employer Rate

Unfunded Liability Contributions

Why Does The Unfunded Liability Fluctuate?

The most important reasons:

- ❑ Investment returns
- ❑ Pension spiking
- ❑ Past service adjustments
- ❑ Changes in actuarial assumptions
- ❑ Benefit enhancements granted after a member joins IMRF
- ❑ Demographic disparity from averages

The Five Parts of the Employer Rate

Why Does The Unfunded Liability Fluctuate?

Unfunded Liability Contributions

THE ACTUARY …

… compares the future cost estimates to IMRF's actual experience every three years, as part of a Triennial Experience Study.

IMRF'S BOARD …

… reviews the changes and assumptions to match experience.

THE CHANGES …

… can result in additional unfunded costs, adding to the unfunded liability.

The Five Parts of the Employer Rate

Unfunded Liability Contributions

Influences on Unfunded Liability Contributions:

- The employer's demographics compared to the demographics of IMRF can have a significant effect on the unfunded liability.
  - To the extent that employees differ from the average IMRF member, an employer's unfunded liability will vary to make up the difference.
  - The actuary assumes payroll increases will be 3.5% per year. More or less than the actuarial assumption impacts the unfunded liability.
- Investment earnings less than or greater than 7.5% will effect the unfunded liability.

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The Five Parts of the Employer Rate

Average Contribution Rates for 2016:

Unfunded Liability Contributions

	REGULAR PLAN
Tier 1 Normal Cost	7.29%
Tier 2 Normal Cost	4.41%
Average Employer Contributions for Total Normal Cost*	**6.84%**
Lump Sum Death-in-Service Benefits	**0.15%**
Temporary Disability	**0.14%**
13th Payments	**0.62%**
Unfunded Liabilities	**3.76%**
Early Retirement Incentive Liabilities	**0.22%**
TOTAL AVERAGE EMPLOYER RATE	**11.73%**

TOTAL AVERAGE EMPLOYER RATE

**Average Tier 1 and Tier 2 Normal Cost weighted on expected payroll.*

Additional Information

1. Contact your **Field Rep.** for further discussion.
2. Attend an **Authorized Agent Certification Workshop**.
3. Review ***Section 7 – Employer Contributions*** of the **Manual for Authorized Agents**.
4. Attend an **IMRF Rate Meeting**, conducted throughout the state during the month of April.

Questions & Answers

Questions not addressed during this program will be answered after and posted to a resource page on IMRF's website, www.imrf.org.

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