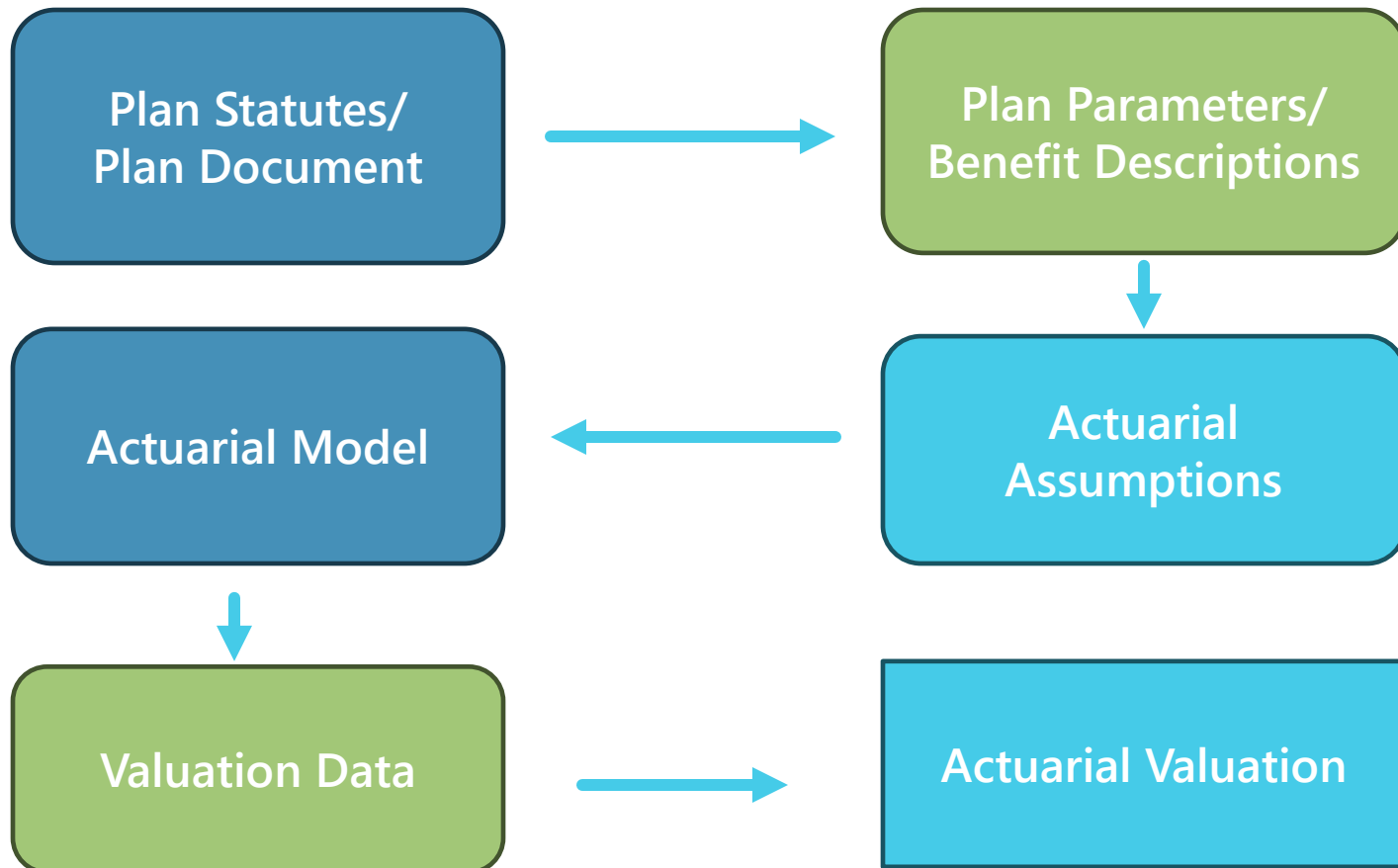


MERS – BOARD EDUCATION

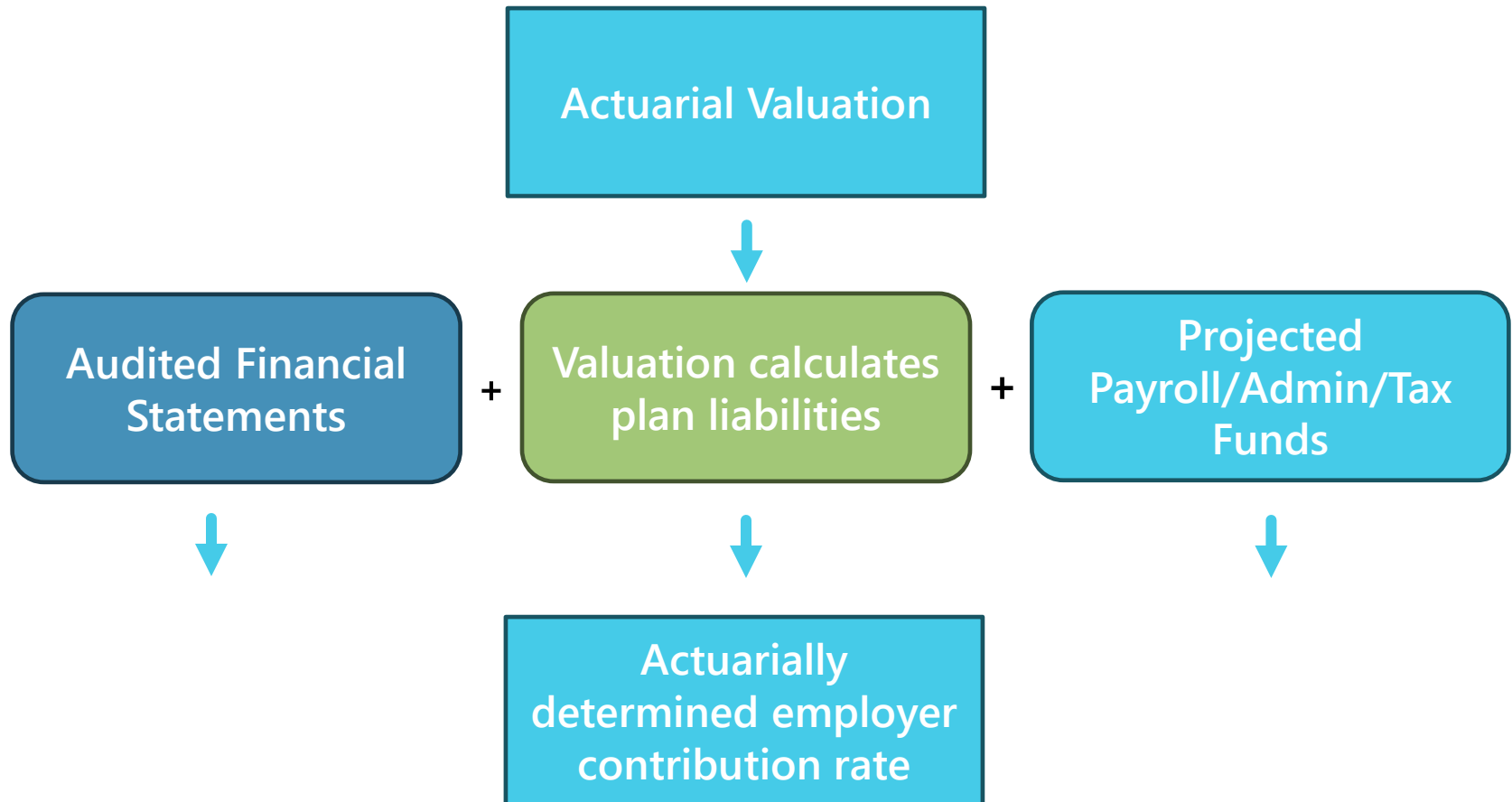
TRUSTEE EDUCATION SESSION JUNE 2025

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Basics of Actuarial Funding



Actuarially Determined Employer Rate



COMPONENT ONE – PLAN STATUTES

Plan statutes represent the rules by which plan benefits are determined. These benefits include:

- Refund benefits for those who do not meet levels of service required for vesting
- Vested, deferred benefits for those who do meet levels of service required for normal retirement
- Disability benefits for those who qualify as totally disabled
- Normal Retirement benefits for those who remain employed to a sufficient age/service
- DROP benefits for those who remain employed to a sufficient age/service but elect to receive a portion of their benefits in a lump sum
- Survivor benefits for eligible spouse/minor children of members who die in active service

COMPONENT TWO – PLAN PARAMETERS

Plan parameters represent a set of rules to be used in the system's actuarial valuation to project future benefits for plan members.

Within our setup to run actuarial valuations, we build what we call a parameter matrix that incorporates formulas for determining projected benefits. To build these formulas you need to define things like:

- The relevant accrual rates for each year of service
- The definitions of final average compensation applicable to each group
- Eligibility rules applicable to available benefit types
- Settings for things like:
 - Are contributions made during the DROP participation period?
 - Assumed DROP participation period/Post-DROP assumptions
 - Minimum service rules to qualify for survivor or disability benefits
- Benefit capping rules
- Early retirement rules

COMPONENT THREE – ACTUARIAL ASSUMPTIONS

To place a value on promised benefits, you must utilize actuarial assumptions. These assumptions, if reasonable, mimic member decision making and things that affect members and retirees like mortality and disability.

Actuarial assumptions include the following: mortality rates, withdrawal rates, retirement rates, DROP entry rates, disability rates, post-DROP retirement rates, rate at which DROP participants retire at the end of DROP participation, how long DROP participants remain employed if they remain employed post-DROP, salary increase rates, vesting election percentage, option reduction factors, family statistics, etc.

R.S. 11:1826 states that the system must study its assumptions once each 5 years. The latest experience study was completed in June 2024. A report describing each assumption was provided to the Board and once adopted, the actuarial assumptions used within the system's valuation were updated.

COMPONENT FOUR – ACTUARIAL MODEL

The actuarial model is a mixture of software programs that work with the system's parameters, benefit formulas, and actuarial assumptions to determine actuarial values like the normal cost, the present value of future benefits, the entry age normal accrued liability, and the present value of future employee contributions.

Actuarial valuations are run on three main groups:

Actively employed members (including DROP participants)

Former employees who withdrew from service and are due either a refund of employee contributions or a deferred lifetime benefit

Retirees/survivors who are receiving monthly benefits.

COMPONENT FIVE – ACTUARIAL VALUATION DATA

Actuarial valuations are run on data provided by the system from its database software. The data file provided for use in the actuarial valuation includes key information on every active member and former member currently receiving benefits or due some payment of a refund or monthly benefits in the future.

The valuation results are dependent on the quality of the data, so a lot of time is spent to review and test the data provided. Many data fixes are made in the annual review process.

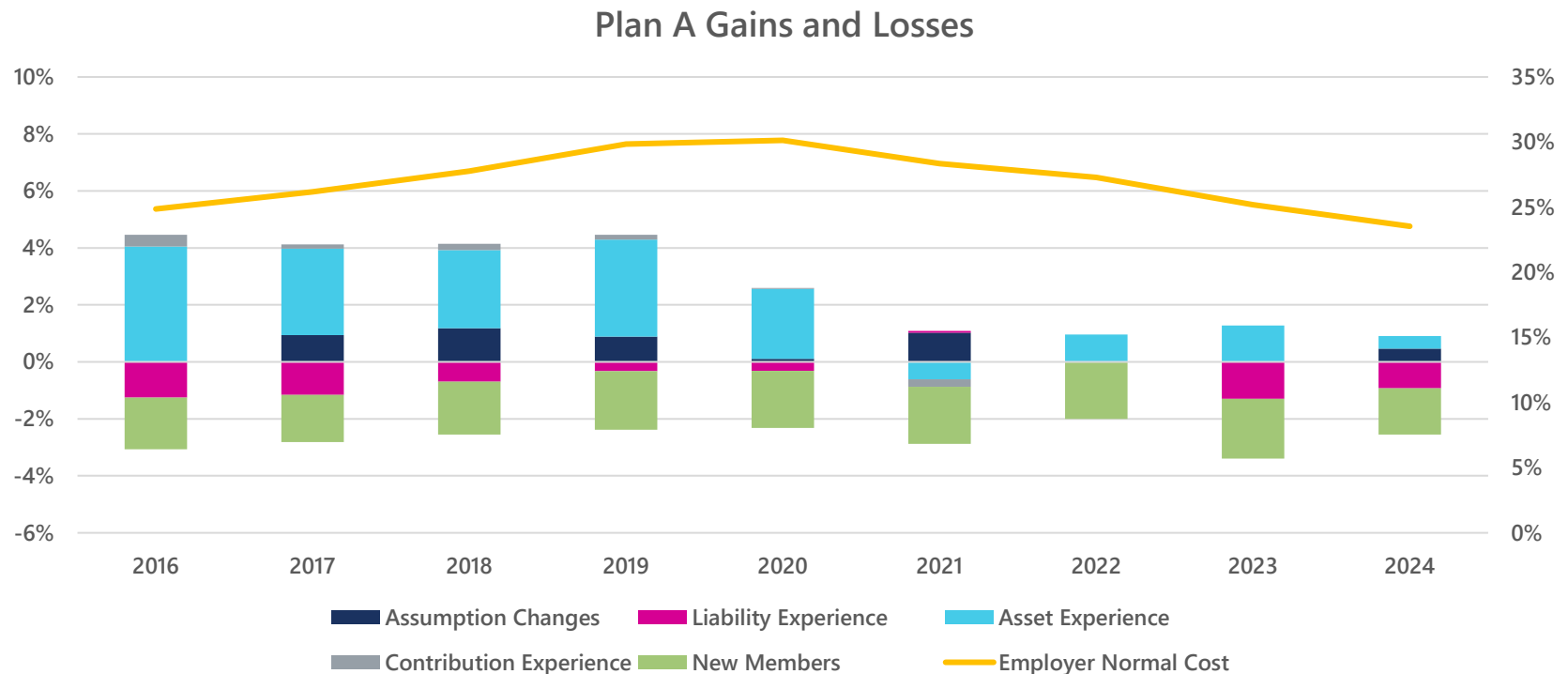
DETERMINING THE EMPLOYER RATE

The main focus of the annual actuarial valuation is determining the minimum employer contribution rate to actuarially fund plan benefits.

Determining the appropriate employer rate requires the combining of actuarial valuation figures and the audited financial statements.

Explaining the change in the annual rate involves a calculation of annual gains and losses. These demonstrate items that increased costs and items that decreased costs. The net impact of these items is the change in the annual employer normal cost rate (the primary source of cost).

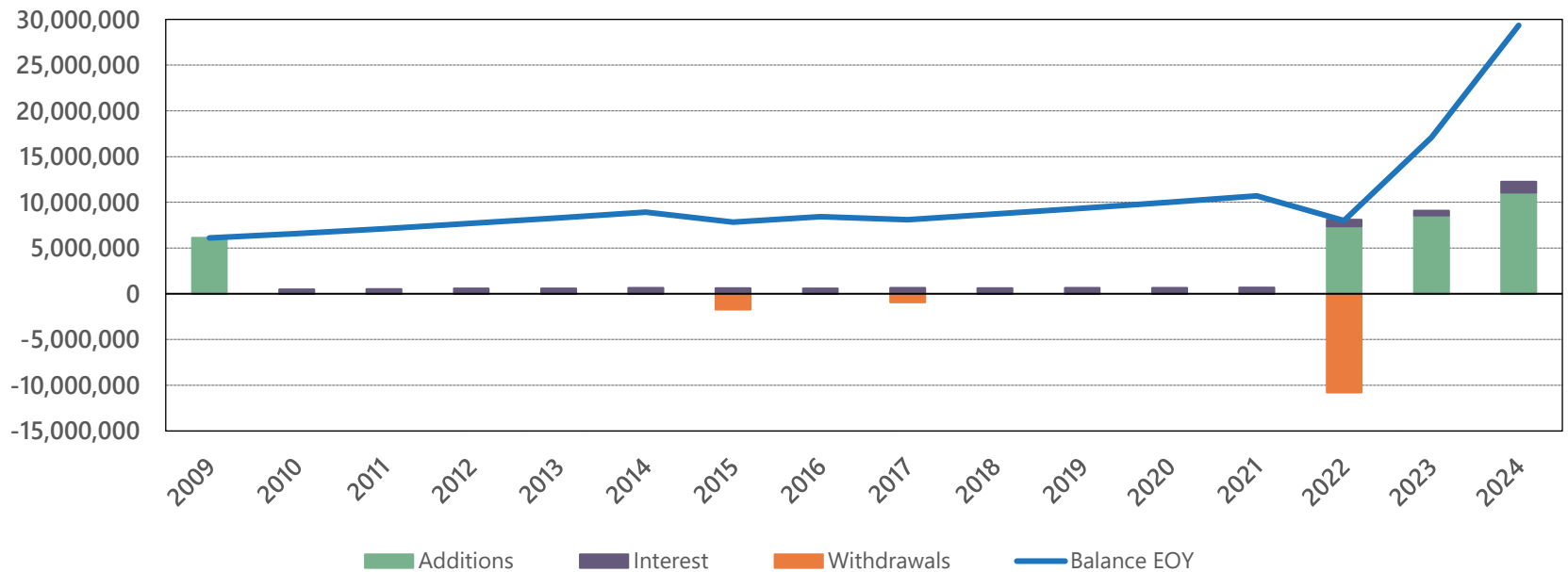
HISTORICAL GAINS/LOSSES



Must have ER rate set above minimum and a contribution gain to add funds to the Funding Deposit Account.

FUNDING DEPOSIT ACCOUNT

Figure 3.1. Plan A | Funding Deposit Account History



Must have ER rate set above minimum and a contribution gain to add funds to the Funding Deposit Account

Basics of Actuarial Funding

Actuarial modeling of pension plans involves the modeling of the financial impact of things that might happen at some time in the future.

Valuing something that might happen in the future involves:

Estimating the payout stream according to the statutes

Applying a probability to the event happening at each point in the future

Discounting the financial impact of the series of potential events from each point at which it may occur to the date of the valuation.

The purpose of this modeling is to determine the amount that must be collected so that all promised benefits may be funded from plan assets

Why Actuarial Funding?

Actuarial funding is the only way to truly guarantee lifetime benefits. There are many examples of systems not actuarially funded that have tremendous difficulty paying all promised benefits. The following are a couple of examples:

Social Security

Social Security is funded through payroll taxes collected from workers and employers.

Social Security has never had actuarially determined contribution rates. The 2024 Social Security Trustees Report projects that the Social Security trust funds will be depleted by 2035. Reserves are insufficient to pay full scheduled benefits throughout the 75-year projection period. Over the 75-year long range period, the annual cost rate (the ratio of program cost to taxable payroll) is expected to increase from 14.71% in 2024 to 18.6% in 2080.

Illinois State Employees

State retirement systems that have utilized fixed rate funding like Illinois have often

experienced low funded ratios. The Illinois State Employees' Retirement System has a 44.7% funded ratio. In a recent survey, the state is paying approximately 84% of the actuarially required contribution.

Louisiana's Funding Policy

Key Funding Facts

The state and statewide retirement systems are mentioned specifically in the Louisiana Constitution.

Louisiana committed to actuarial funding of its public retirement systems in the late 1980's.

The statutes provide direct funding requirements for statewide systems like MERS within R.S. 11:103.

Act 81 of the 1988 legislative session set up a UAL to be paid off in 40 years – 2029. Both plans paid off the Frozen UAL early.

MERS Funding-Related Statutes

R.S. 11:22 establishes the actuarial funding method to be used

R.S. 11:62 establishes the employee rate – For MERS the law provides:

- Plan A – Range of 9.25% - 10.00% for Tier 1 as determined by the Board

- Plan A – Range of 8.00% - 10.00% for Tier 2 as determined by the Board

- Plan B – Range of 5% - 6% for Tier 1 as determined by the Board

- Plan B – Range of 4% - 6% for Tier 2 as determined by the Board

R.S. 11:82 dedicates ad valorem taxes to MERS

R.S. 11:103 provides the rules for determining the actuarially required employer contribution rate

R.S. 11:105 allows MERS to maintain the employer rate above the minimum

R.S. 11:106 allows MERS to set the employer rate up to 3% above the minimum

R.S. 11:107 allows MERS to set the rate anywhere between the minimum and the higher rate

R.S. 11:107.1 created the Funding Deposit Account

Funding with Employee vs Employer Contributions

Employee contributions are less helpful for funding future benefits than employer contributions because employee contributions are refundable if an employee withdraws from membership and elects to receive a refund of employee contributions.

Given the withdrawal rates in Plan A, a reduction in employee contribution rates from the current level of 10.00% to 9.25% would result in an increase to the employer contribution rate of 0.62%. It takes less from employers to replace lost employee contributions.

The Plan A employee contribution rate was first increased from 9.25% to 9.50% in Fiscal 2014 and then further increased to the maximum 10% rate in Fiscal 2021.

For Fiscal 2014, the minimum employer rate was 19.00%
For Fiscal 2021, the minimum employer rate was 29.50%
For Fiscal 2026, the minimum employer rate is 23.25%

The Basic Employer Agreement

Employers agree to membership by signing an agreement with MERS

Membership agreements extend the benefits of MERS to qualifying employees of that employer and obligate the employer to make the necessary contributions to fund benefits.

Employers share the risk and obligations of the retirement system

Employers then share the risk and the obligations of providing employees a set of retirement benefits. The group as a whole (in the form of the retirement system itself) then has the obligation to collect sufficient funds to pay such benefits after accounting for money earned through investing.

It is vital that no employer shed their responsibility to others

If employers could stop enrolling new employees without consequence, the last employer to leave could be stuck with all the liability of the system.

2020 Legislation

In the 2020 legislative session, MERS faced the possibility of its largest employer ceasing to enroll new members.

During that session, the MERS Director and actuary testified that allowing the employer to cease enrolling new members while leaving current members enrolled in MERS and leaving MERS with the responsibility for the payment of lifetime benefits to past retirees and survivors from that employer would shed that employer's contribution responsibility to the other employers.

Under R.S. 11:103, the system wouldn't be deprived of necessary funding because the employer contribution rate would naturally increase as the plan's payroll declined. The employers who continued enrolling employees in MERS would slowly become a larger percentage of the necessary contribution effort, collectively replacing that employer and paying a larger amount of contributions.

2020 Legislation Required Amendment to Protect Other Employers

Eliminated Position Identified when the replacement employee is enrolled in PERS

“The amount due shall be determined by the actuary employed by the system using the entry age normal funding method and shall be paid either in a lump sum or amortized over ten years in equal monthly payments with interest at the system's actuarial valuation rate in the same manner as regular payroll payments to the system...”

Final Thoughts

Lafayette City-Parish Consolidated Government was granted a longer period (20 years) to pay MERS for eliminated positions.

The consequence of an employer ceasing to enroll new employees would be less important if the system was 100% funded.

In the 2024 valuation, MERS Plan A was 80.16% funded and Plan B was 81.76% funded.

Plan A has an Entry Age Normal Accrued Liability of \$1,329,155,959

Plan A has an Actuarial Value of Assets of \$1,065,421,967.

This means that the implied UAL is \$263,733,992

All employers share in the contribution effort required to pay off this implied UAL and to reach 100% funded.