

The FPPTA Education Blueprint



The FPPTA Education Blueprint Understanding the Basics of Actuarial Methods for Florida Municipal Pension Plans

Introduction

This paper is designed to make the theories and language of actuarial methods—particularly as they relate to Florida’s municipal pension systems—more understandable for trustees, administrators, and stakeholders. With over 400 local government pension plans operating under Chapters 112, 175, and 185 of the Florida Statutes, Florida’s pension environment is unique in its decentralized structure and strong reliance on local governance.

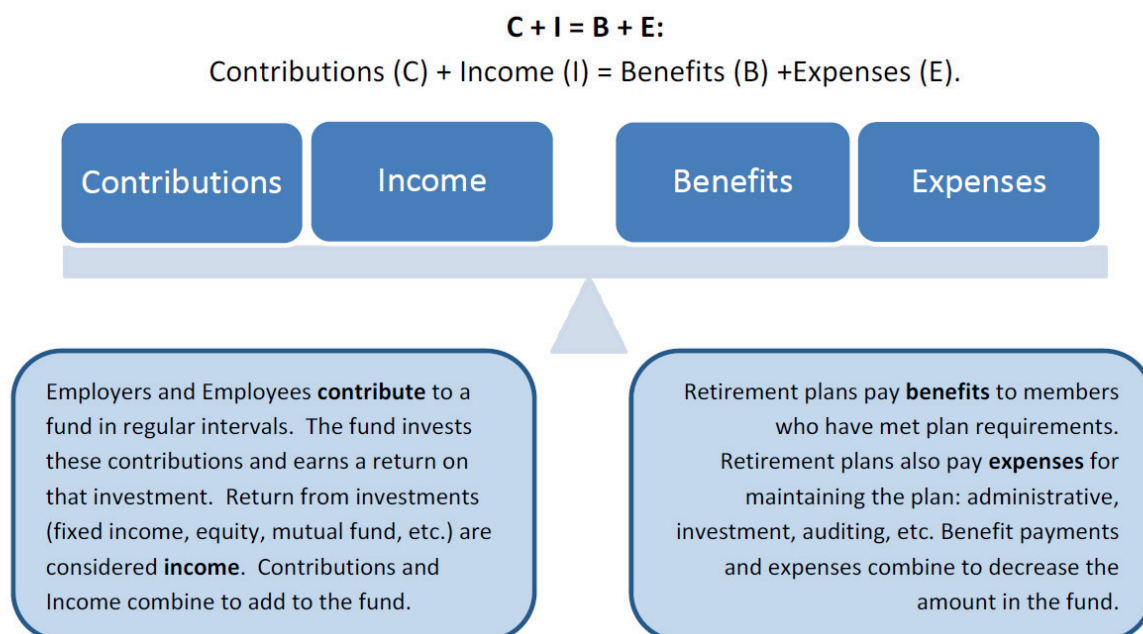
Municipal trustees and administrators regularly engage with actuarial information to manage their plans and meet their fiduciary responsibilities. Government officials, including city commissions and pension boards, must establish sound policy in line with actuarial realities. Plan members—firefighters, police officers, general employees—need to understand how actuarial choices influence their future benefits.

Florida taxpayers, who help fund these plans through employer contributions, also have a vested interest in the sustainable stewardship of public pension systems. With increasing scrutiny on pension funding and long-term liabilities, a foundational grasp of actuarial principles is essential for all involved.

This paper introduces key actuarial concepts using examples and scenarios common in Florida municipal plans. It begins with the fundamental equation of pension financing and explains the distinctions between defined benefit and defined contribution plans. It then focuses on pre-funded defined benefit plans—the predominant type among Florida’s local systems—and examines the methods and assumptions that drive actuarial valuations and funding decisions.

Fundamental Equation of Pension Plan Financing

To understand the basics of actuarial methods for valuing pension liabilities, consider the foundational equation used by all public pension systems:



This equation applies universally to pension plans, including the defined benefit (DB) plans that are most prevalent among Florida's municipal systems.

Contributions (C)

Florida municipal pension plans receive contributions from two sources:

- **Employer contributions**, made by the sponsoring government entity (e.g., city, town, or district), and
- **Employee contributions**, deducted from member paychecks as required by the plan's governing ordinance or collective bargaining agreement.

Contributions are generally set as a percentage of payroll and are intended to fund both current benefit accruals and a portion of any unfunded liabilities.

Investment Income (I)

All pre-funded Florida municipal plans invest their assets to generate income over time. Common investments include fixed income, equities, and alternative assets. The assumed rate of return on these investments is a critical actuarial assumption and affects the amount of contributions required.

Investment income reduces the amount of contributions needed to fully fund future benefits and administrative costs.

Benefits (B)

Defined benefit pensions provide monthly retirement benefits calculated based on a formula typically involving years of service and final average compensation. Florida plans under Chapters 175 and 185 provide defined benefits specifically for firefighters and police officers, while Chapter 112 governs plans for general employees.

Benefit payments represent the largest outflow from the pension trust over time.

Expenses (E)

In addition to benefits, pension plans incur administrative and investment-related expenses. These include actuarial, legal, custodial, and consulting fees. The total cost of running the plan—combined with benefit payments—must be balanced against contributions and investment income.

Defined Benefit vs. Defined Contribution

While the fundamental equation of pension plan financing (**C + I = B + E**) applies to all retirement systems, how that equation is managed depends on the type of plan. Florida municipal pension systems overwhelmingly use **defined benefit (DB)** plans—especially for police officers and firefighters covered under **Chapters 175 and 185** of the Florida Statutes. However, some municipalities also offer or supplement with **defined contribution (DC)** plans, particularly for general employees or senior management.

Defined Benefit Plans (DB)

In a defined benefit plan, the **benefit is guaranteed** and determined by a set formula—often based on final average salary and years of credited service. The employer (and sometimes employees) must contribute enough to fund these promised benefits over time, based on actuarial valuations.

Florida DB Plan Example (Typical for Chapter 175 or 185 Plans):

- **Retirement Benefit:** $3.0\% \times \text{final average compensation} \times \text{years of credited service}$
- **Normal Retirement Age:** 55 with 10 years of service, or 25 years of service regardless of age
- **Form of Payment:** Monthly annuity for life, often with options for survivor benefits

Actuarial methods are essential to determine:

- Required contributions (C)
- Future expected investment returns (I)
- Value of future benefits (B)
- The plan's unfunded actuarial accrued liability (UAAL), if any

If the plan experiences investment losses or changes in assumptions (e.g., mortality improvements), contributions may need to be adjusted. These adjustments are typically determined during the annual actuarial valuation process.

Defined Contribution Plans (DC)

In a defined contribution plan, **contributions are guaranteed, but the benefit is not**. The employer and employee contribute a set percentage of salary to the employee's individual retirement account. The account balance at retirement, including investment gains or losses, determines the benefit.

Florida DC Plan Example:

- **Employer Contribution:** 6% of pay
- **Employee Contribution:** 6% of pay
- **Retirement Benefit:** Account balance at retirement

DC plans are less common in Florida municipal government but may be offered as supplemental plans or alternatives for administrative or part-time employees.

Key Differences

Feature	Defined Benefit (DB)	Defined Contribution (DC)
Benefit Guarantee	Yes – based on formula	No – based on account balance
Actuarial Valuation Needed	Yes	No (unless used in conjunction with DB plan)
Investment Risk	Borne by employer and plan	Borne by employee

Feature	Defined Benefit (DB)	Defined Contribution (DC)
Most Common in FL?	Yes – especially for police/fire under 175/185	Occasionally, for general or executive employees

In Florida, **DB plans require pre-funding and actuarial oversight**, while DC plans do not involve unfunded liabilities. As such, DB plans are more complex and require a deeper understanding of actuarial methods to ensure long-term sustainability.

Pre-Funding vs. Pay-as-you-go

Florida law and public pension best practices require that municipal pension plans operate on a **pre-funded** basis—not a **pay-as-you-go** system. Pre-funding ensures that assets are set aside and invested over time to meet future benefit obligations, rather than relying solely on current revenue.

Pre-Funded Plans

The overwhelming majority of Florida’s municipal plans—particularly those governed by **Chapters 175 and 185** of the Florida Statutes—are **pre-funded defined benefit plans**. These plans use actuarial valuations to determine the contributions needed each year to fund:

- Current benefit accruals (normal cost)
- A portion of any unfunded liabilities

Investment income (I) earned on the plan’s assets helps reduce the amount of required contributions (C). Over time, this pre-funding strategy helps stabilize plan costs and ensure that each generation of taxpayers pays for the retirement benefits of the employees who served them.

Pay-as-you-go (Not Typical in Florida Municipal Plans)

Under a pay-as-you-go model, contributions are made only when benefits come due—meaning there is no accumulated fund and no investment income. This model is **not actuarially sound** and is not permitted under Florida’s municipal pension funding framework.

Pay-as-you-go funding:

- Provides **no investment income**, increasing the burden on contributions
- Delays funding, potentially placing future generations at financial risk

- Is generally only used in rare circumstances (e.g., unfunded closed legacy plans, which are not the norm in Florida)

Why Pre-Funding Matters in Florida

Florida statutes and regulatory oversight emphasize the importance of pre-funding for municipal pension health. For example:

- **Chapter 112, Part VII, F.S.** sets minimum funding standards and actuarial reporting requirements.
- The **Division of Retirement** within Florida’s Department of Management Services reviews all local plans for actuarial soundness.
- Pre-funding ensures compliance with GASB reporting standards and supports intergenerational equity.

Comparison Summary

Feature	Pre-Funding	Pay-as-you-go
Investment Income (I)	Yes – used to reduce required contributions	No – 100% of benefits funded as due
Typical in FL Municipal Plans?	Yes – required by law	No – generally not allowed
Intergenerational Equity	Yes – each generation pays its share	No – cost shifts to future taxpayers
Actuarial Oversight	Required	Not applicable

Actuarial Valuations of Defined Benefit Plans

Actuarial valuations are a critical part of managing Florida’s pre-funded municipal defined benefit pension plans. These valuations ensure the long-term health and sustainability of plans by projecting future obligations and determining the contributions needed to meet them. Florida law—especially **Chapter 112.63, F.S.**—requires all local retirement systems to complete an actuarial valuation at least once every three years (though most plans perform them annually).

Purpose of an Actuarial Valuation

An actuarial valuation is a formal, mathematical assessment of the pension plan's financial condition at a given point in time—usually the end of the plan year. It helps determine:

- Whether the plan is adequately funded
- The recommended employer contribution for the coming fiscal year
- Any changes to the plan's unfunded actuarial accrued liability (UAAL)
- The plan's **funded ratio**: a key measure of fiscal health

Key Components of a Valuation

The valuation process considers a wide range of inputs, including:

- **Plan Demographics**: number of active members, retirees, beneficiaries, and terminated vested members
- **Benefit Provisions**: retirement age, benefit formula, cost-of-living adjustments (COLAs), DROP provisions, etc.
- **Economic Assumptions**: expected rate of return, salary growth, inflation
- **Demographic Assumptions**: retirement patterns, mortality, disability, turnover
- **Investment Experience**: actual return on assets compared to assumed return
- **Contribution History**: actual employer and employee contributions compared to required amounts

These inputs allow the actuary to project the **present value of future benefits (PVFB)** and allocate those benefits between past service (accrued) and future service (not yet earned).

Florida Example: A 175 Firefighter Plan

In a typical Florida Chapter 175 plan for firefighters:

- The actuary evaluates plan assets, liabilities, and funding assumptions annually.
- Required contributions are calculated based on the plan's AAL (Actuarial Accrued Liability), AVA (Actuarial Value of Assets), and the target amortization period for the UAAL.
- Premium tax revenues received under Chapter 175 are applied toward the required employer contribution.

Discount Rate and Present Value

One of the most significant actuarial assumptions is the **discount rate**—the rate at which future benefit payments are brought back to today's dollars. In Florida, this is typically based on the long-term expected return on plan investments. A higher discount rate results in a lower present value of liabilities, while a lower rate increases the calculated liability. This is especially important for Florida municipal plans, where actuaries must justify assumptions and disclose their impact on the plan's funding status in compliance with:

- **Chapter 112.664, F.S.** (Disclosure of funded ratio using both assumed and standardized discount rates)
- **Governmental Accounting Standards Board (GASB) Statements 67 and 68**

Summary

An actuarial valuation:

- Takes a snapshot of the plan's financial position
- Measures whether contributions are adequate
- Estimates the cost of benefits already earned and those yet to be earned
- Helps cities, boards, and taxpayers manage long-term obligations responsibly

In Florida, actuarial valuations are more than technical reports—they're **foundational tools for budgeting, negotiating benefits, setting policy, and upholding fiduciary duty.**

Pension Obligations: PVFB, AAL, and Normal Cost

In actuarial valuations of Florida's municipal pension plans, determining the value of pension benefits is a core task. These benefits represent long-term financial obligations that the plan must meet over time. Actuaries quantify these obligations using a series of present value concepts.

Key Terms Defined

- **PVFB** – *Present Value of Future Benefits*: The total value today of all expected future benefit payments for current members, including benefits that will be earned in the future.
- **AAL** – *Actuarial Accrued Liability*: The portion of the PVFB attributed to service already rendered by employees as of the valuation date.
- **Normal Cost (NC)** – The value of the benefits expected to be earned during the current plan year.
- **PVFNC** – *Present Value of Future Normal Costs*: The portion of PVFB representing the value of benefits to be earned in future years.

The relationship among these values can be expressed as:

$$\text{PVFB} = \text{AAL} + \text{PVFNC}$$

Application in Florida Plans

For a Florida municipal plan—such as a Chapter 185 police officer retirement system—the actuary will:

- Use the plan's benefit formula (e.g., $3\% \times \text{years of service} \times \text{final average compensation}$)
- Apply assumptions about salary growth, retirement age, mortality, etc.
- Discount all future expected benefit payments to the present to calculate the PVFB
- Allocate that PVFB into the AAL (past service) and PVFNC (future service), with the NC being the first year of PVFNC

Example Breakdown

For a 20-year police officer in a Chapter 185 plan:

- **PVFB**: Includes expected monthly retirement benefits starting at age 55, projected over a lifetime
- **AAL**: Value of the 20 years of credited service already earned
- **NC**: Value of benefits expected to be earned in the 21st year of service
- **PVFNC**: All normal costs from the 21st year through retirement

Funding Implications

The **normal cost** is typically funded by employer and employee contributions in the current year. Any shortfall between the plan's actuarial assets and its AAL becomes the **unfunded actuarial accrued liability (UAAL)**—a key measure of long-term funding shortfall.

In Florida, **Chapter 112.63, F.S.**, and related statutes require the full funding of normal cost each year and an amortization schedule to pay down the UAAL over time.

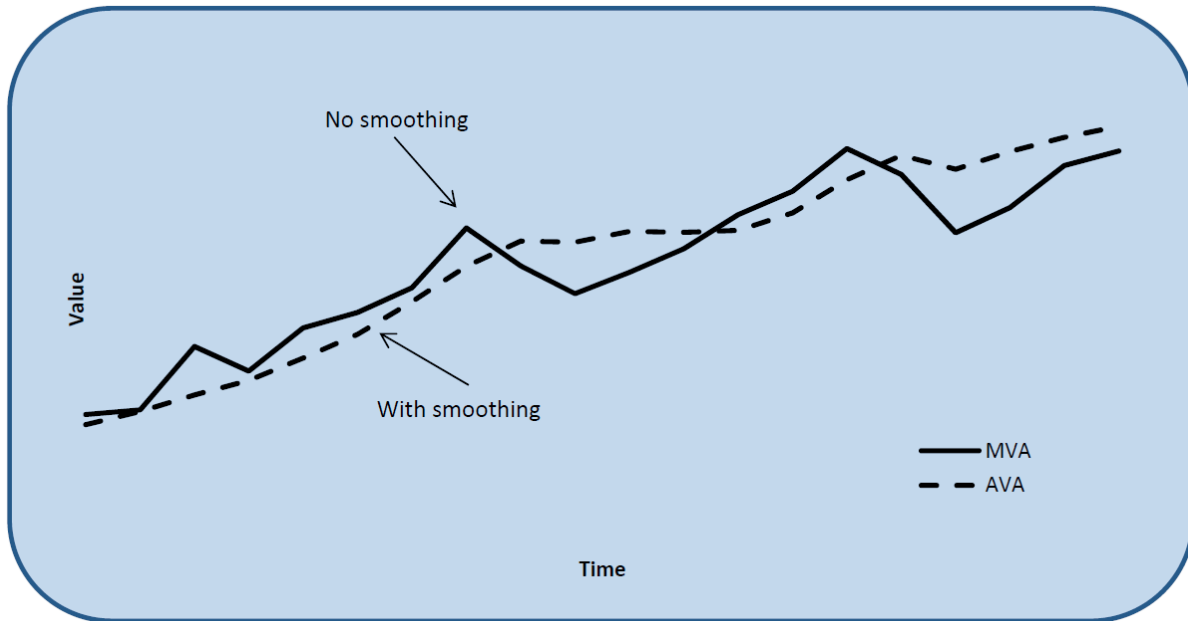
Assets and Asset Smoothing

In Florida's municipal defined benefit pension plans, the measurement of plan assets is just as important as the calculation of liabilities. Pension contributions are based not only on projected future benefits, but also on the value of current plan assets—and how those assets are expected to grow over time.

Types of Asset Measures

Two main types of asset values are used in actuarial valuations:

- **Market Value of Assets (MVA):** The actual, real-time value of the pension plan's investments as of the valuation date. This value can fluctuate significantly based on market conditions.
- **Actuarial Value of Assets (AVA):** A smoothed version of the MVA used to dampen the effect of short-term market volatility. AVA is used in actuarial valuations to calculate contribution requirements in a more stable and predictable manner.



Why Smoothing Matters

Florida municipalities rely on **stable contribution rates** for budgeting purposes. Because investment returns can vary widely from year to year, using the raw MVA could lead to large swings in required contributions. AVA smooths those fluctuations by spreading unexpected gains or losses over a fixed period (typically 4 or 5 years).

For example:

- If the plan earns 12% in one year but only assumes 7.0%, the 5% gain is not recognized all at once.
- Instead, a portion of the gain is “deferred” and recognized gradually over the smoothing period.

This smoothing mechanism helps cities avoid abrupt contribution spikes due to short-term market changes.

UAAL and Funded Ratio

Two of the most closely watched metrics in Florida municipal pension plan management are:

- **UAAL:** Unfunded Actuarial Accrued Liability

- **Funded Ratio:** The ratio of plan assets to accrued liabilities

These measures help trustees, plan members, and local governments understand how well the plan is funded and whether contributions are on track to meet long-term benefit obligations.

Unfunded Actuarial Accrued Liability (UAAL)

The **UAAL** is the difference between the actuarial accrued liability (AAL) and the actuarial value of assets (AVA):

$$\text{UAAL} = \text{AAL} - \text{AVA}$$

- **AAL** represents the value today of benefits already earned by current and former employees.
- **AVA** reflects the smoothed value of the plan's assets.

A positive UAAL means the plan has more liabilities than assets—it is underfunded to some degree. Most Florida municipal plans have some level of UAAL and manage it through structured amortization payments, which are included in the required annual contributions.

Funded Ratio

The **funded ratio** is calculated as:

$$\text{Funded Ratio} = \text{AVA} / \text{AAL}$$

It indicates what percentage of accrued pension obligations are currently covered by actuarial assets.

- A funded ratio of **100%** means the plan is fully funded.
- A ratio **below 100%** indicates the presence of a UAAL.

A ratio **above 100%** may occur when investment gains or conservative assumptions result in surplus assets.

Contributions: Normal Cost and Amortization of UAAL

In Florida's municipal defined benefit plans, required contributions are designed to keep the plan both **actuarially sound** and **compliant with state law**. Contributions come from two primary sources:

- **Employers** (cities, towns, or special districts)

- **Employees** (as required under the plan or applicable statute)

Total Contribution = Normal Cost + UAAL Amortization + Interest

Contributions are actuarially determined using a blend of current service costs and the repayment of any unfunded liabilities.

Normal Cost (NC)

The **normal cost** is the annual cost of benefits earned by active employees during the current year. It reflects the present value of future benefits attributed to this year's service.

- In most Florida municipal plans, both the employer and employee contribute toward the normal cost.
 - Plans under **Chapter 175 and 185** often have fixed employee contribution rates (e.g., 5% of pay), with the employer contributing the remainder of the required amount.
 - **Chapter 112.63, F.S.** requires that at least the full normal cost be funded annually.
-

UAAL Amortization

If the plan's actuarial accrued liability (AAL) exceeds the actuarial value of assets (AVA), the shortfall is the **Unfunded Actuarial Accrued Liability (UAAL)**. This amount must be **amortized** over time—meaning it is gradually paid off through annual contributions.

Florida statute permits different amortization methods, including:

- **Closed amortization** (fixed end date; liability paid off in a set number of years)
- **Open amortization** (resets each year; not preferred for sound funding)
- **Recalculated amortization** (adjusted each valuation cycle, often used for plans with fixed rates)

Amortization Period Standards

Under guidance from the Florida Division of Retirement and national best practices:

An amortization period of **15–25 years** is generally considered healthy

Maximum period allowed under Chapter 112.64, F.S. is **30 years** (shorter than the 40-year federal PRB guideline)

- Benefit improvements are prohibited if they would cause the amortization period to exceed 25 years
-

Role of Premium Tax Revenue in Chapters 175 & 185

Florida cities with qualified firefighter or police officer plans under **Ch. 175 and 185** receive **insurance premium tax revenues** that can be used to offset employer contributions. The use of these funds must be consistent with Chapter 2015-39, Laws of Florida, which outlines how excess premium tax revenue may be applied to plan benefits or funding.

Amortization Methods

Once a Florida municipal pension plan identifies an **Unfunded Actuarial Accrued Liability (UAAL)**, it must establish a schedule for systematically paying it off. This process is called **amortization**, and the method chosen significantly affects the pattern and stability of future contributions.

Purpose of Amortization

Amortization smooths the repayment of UAAL over a fixed number of years. It is similar to a mortgage: rather than paying off the entire shortfall at once, payments are spread over time to avoid sudden fiscal strain on the employer (and taxpayers).

Common Amortization Approaches

Florida municipalities generally choose one of two amortization methods, both allowed under actuarial standards:

1. Level Dollar Method

- Fixed dollar payment each year
- Similar to a traditional fixed-rate mortgage
- More conservative: high early payments that decline relative to payroll over time
- Often used when contribution stability is not the top priority, but faster funding is

2. Level Percent of Payroll Method

- Payments increase each year at a fixed rate (e.g., 3% per year)
- Keeps contribution levels stable as a **percentage of payroll**

- Assumes payroll will grow over time, aligning costs with expected revenue growth
- Most commonly used in Florida municipal plans due to budgeting alignment with rising payrolls

Amortization Period Types

Plans may also choose from different **period structures** for amortizing new layers of UAAL that arise from assumption changes, investment gains/losses, or benefit changes:

Amortization Type	Description	Florida Use
Closed	Fixed period (e.g., 20 years), decreases annually until fully paid off	Preferred
Open	Resets annually (e.g., new 30-year schedule each year)	Not compliant with Florida standards
Recalculated	Period recalculated at each valuation based on funding needs and fixed rate	Common in fixed-rate or cost-sharing plans

Illustration: Amortization Method Impact

Method	Year 1 Payment	Year 10 Payment	Year 20 Payment
Level Dollar	\$500,000	\$500,000	\$500,000
Level % of Payroll	\$375,000	\$500,000	\$665,000

The **Level Dollar** method results in a more rapid paydown of UAAL but may be less budget-friendly for small or fiscally constrained Florida municipalities. The **Level Percent of Payroll** method spreads out the cost in proportion to expected growth in salary bases.

Cost Methods

Actuarial cost methods determine how pension liabilities are allocated over time between an employee's past, present, and future service. These methods are essential to Florida's municipal pension funding because they directly influence:

- The **Actuarial Accrued Liability (AAL)**

- The **Normal Cost (NC)**
- The **Unfunded Actuarial Accrued Liability (UAAL)**

Florida law requires public pension plans to use recognized actuarial cost methods and to apply them consistently. Two methods are most commonly used among Florida's local retirement systems:

1. Entry Age Normal (EAN) – Most Common in Florida

The **Entry Age Normal** method spreads the cost of an employee's pension benefit evenly as a percentage of pay over their career.

- **Normal Cost** is calculated as a level percentage of payroll from the employee's entry age until retirement.
 - The **AAL** is the value of benefits attributed to service already rendered, based on projected final salary.
-

2. Projected Unit Credit (PUC)

The **Projected Unit Credit** method attributes each year's benefit accrual individually, with cost increasing as the employee nears retirement.

- **Normal Cost** starts lower but increases over time.
 - More of the liability is pushed into future years compared to EAN.
-

Actuarial Assumptions

Actuarial valuations rely heavily on assumptions about future events. These **actuarial assumptions** are used to estimate the cost of promised pension benefits and to determine appropriate contribution levels. In Florida, these assumptions must be set in accordance with actuarial standards of practice and approved by the plan's governing board, often with input from the actuary and the Division of Retirement.

Florida law—particularly **Chapter 112.63, F.S.**—requires that all assumptions be **reasonable** and based on the plan's actual experience or credible industry data.

Types of Assumptions

Actuarial assumptions fall into two main categories:

1.Economic Assumptions

These relate to financial trends that impact the cost of providing benefits.

Assumption	Purpose	Higher Assumption Effect
Investment Return (Discount Rate)	Used to calculate the present value of future benefits (PVFB)	Lowers calculated liabilities
Salary Increases	Affects projected benefit amounts and normal cost	Increases projected liabilities
Inflation Rate	Impacts salary assumptions and cost-of-living adjustments (COLAs)	Increases long-term cost
Payroll Growth	Used in level % of payroll amortization methods	Lowers initial amortization cost

In Florida, most municipal plans assume a **long-term investment return** of around **6.5% to 7.5%**, based on historical returns and investment policy.

2.Demographic Assumptions

These reflect member behavior and life expectancy.

Assumption	Purpose	Cost Impact of Higher Assumption
Retirement Rates	When members are expected to retire	Earlier retirement increases cost
Mortality	How long members are expected to live	Longer lives increase cost
Turnover (Withdrawal)	Rate at which employees leave before retirement	More turnover lowers cost

Assumption	Purpose	Cost Impact of Higher Assumption
Disability	Frequency of disability retirements	More disability increases cost
Marital Status & Spouse Age	Affects survivor benefits	Higher cost if more spousal benefits expected

Experience Studies

Florida's public plans are encouraged to conduct **experience studies** every 3–5 years to ensure that their assumptions remain valid. These studies compare actual plan experience to previous assumptions and help the board decide whether updates are warranted.

For example:

- If members are retiring later than expected, retirement rates may be adjusted.
- If investment returns consistently underperform assumptions, the discount rate may need to be reduced.

Experience Studies and Reasonable Assumptions

Over time, actual plan experience may diverge from the assumptions used in actuarial valuations. To maintain funding discipline and ensure that contributions remain adequate, Florida municipal pension plans periodically conduct **experience studies**. These studies evaluate whether the plan's economic and demographic assumptions continue to reflect reality.

What Is an Experience Study?

An **experience study** compares a plan's actual outcomes over a historical period (typically 3–5 years) to its actuarial assumptions. If a plan consistently experiences earlier retirements, lower investment returns, or higher salary growth than assumed, those assumptions may need to be adjusted.

For example:

- If the mortality assumption underestimates member longevity, liabilities will be understated.
- If salary increases are consistently higher than expected, the normal cost and accrued liability may be understated.

Florida's Division of Retirement **strongly encourages** municipal plans to review assumptions regularly and adjust them as needed to reflect emerging trends.

Who Conducts the Experience Study?

Typically, the plan's retained actuary conducts the study and presents recommendations to the board of trustees. The board then adopts or rejects proposed changes based on fiduciary considerations, compliance requirements, and professional advice.

Common adjustments resulting from Florida experience studies include:

- Updating mortality tables to reflect longer life expectancies
 - Lowering the assumed rate of return to reflect market conditions
- Revising retirement rates based on recent service patterns among public safety employees

Summary: Actuarial Methods in Florida Municipal Pension Plans

Florida's municipal pension systems rely on well-established actuarial principles to ensure the long-term sustainability of retirement benefits for police officers, firefighters, and general employees. Understanding these principles empowers trustees, administrators, and policymakers to make informed decisions consistent with their fiduciary duties and statutory obligations.

Key Takeaways

- **The Fundamental Equation:** All pension systems operate under the principle that **Contributions (C) + Investment Income (I) = Benefits (B) + Expenses (E)**. Understanding this balance is essential to pension governance.
- **Defined Benefit Plans Dominate:** Florida's municipal landscape is largely made up of **defined benefit (DB)** plans—especially under **Chapters 175 and 185, F.S.**—which require actuarial valuations and pre-funding of future benefits.

- **Pre-Funding is Required by Law:** Florida statutes mandate that public pensions be pre-funded—not pay-as-you-go—to ensure that contributions made today cover benefits earned today.
 - **Actuarial Valuations are Essential:** Annual or triennial valuations assess a plan's financial health, recommend contribution levels, and guide funding policy. Valuations rely on assumptions about investment returns, retirement age, mortality, and more.
 - **Understanding Pension Liabilities:** Key actuarial terms include:
 - **PVFB:** Present Value of Future Benefits
 - **AAL:** Actuarial Accrued Liability
 - **NC:** Normal Cost
 - **UAAL:** Unfunded Actuarial Accrued Liability
 - **AVA:** Actuarial Value of Assets
 - **Smoothing and Stability:** Using **smoothed asset values (AVA)** instead of volatile market values (MVA) helps stabilize contributions and promote long-term budget planning.
 - **Amortization Matters:** The UAAL must be paid down over time. Florida law requires amortization periods of 30 years or less, with **15–25 years** being the preferred target for new bases.
 - **Cost Methods Influence Contributions:** The **Entry Age Normal** method is most common in Florida and allocates costs evenly across an employee's career, supporting transparency and fairness.
 - **Assumptions Drive Funding Decisions:** Assumptions about investment returns, inflation, salary increases, and mortality directly affect the plan's reported liabilities and funding requirements.
 - **Experience Studies Keep Assumptions Realistic:** Conducted every 3–5 years, these studies ensure assumptions reflect actual experience, strengthening fiduciary oversight and legal compliance.
-

Conclusion

Trustees of Florida's municipal pension plans must maintain a working understanding of actuarial methods. Whether overseeing a general employees' plan in a small town or a complex police/fire plan in a major city, the principles outlined in this paper form the foundation of sound fiduciary stewardship.

A plan that understands and applies these concepts will not only comply with the law—it will build trust with its members, its taxpayers, and its future.

The FPPTA would like to give credit to the Pension Review Board for the contents of this research paper.



FPPTA Educational Program & Event Offerings

Trustee School

FPPTA Trustee Schools are offered twice a year and include a Fall Trustee School as well as a Winter Trustee School. Trustee Schools run two and one-half days, and offer our Certified Public Pension Trustee program sessions, as well as continuing education sessions. Each Trustee School offers classes including lectures, continuing education workshops, panel discussions, and “break out” sessions with a focus on group discussion and participation.

Annual Conference

The FPPTA Annual Conference draws approximately 2,000 people every year. The conference focusses on a macro-perspective of the industry and public pension landscape over two and one-half days of speakers. Attendees are encouraged to bring their families to the annual conference, to network with industry vendors and event sponsors, and to spend time learning from one another how to protect and grow municipal pension plans.

Certified Public Pension Trustee (CPPT) Program



The FPPTA launched the Certified Public Pension Trustee (CPPT) program in 1997. The goal of the CPPT program is to prepare trustees to perform their duties with confidence and expertise, and to instill in them the value of continuing education in an ever-changing landscape. The CPPT program is an educational track designed to be completed over the course of three FPPTA Trustee Schools within a three-year time frame. Students are expected to complete and pass a test for each of the three program tiers: Basic, Intermediate, and Advanced.

The curriculum covers a wide range of topics and lectures that will prepare trustees for the procedures that are legally mandated; the ethical and fiduciary rules that should inform trustees' actions; activities of the professionals hired by the pension board; and the day-to-day decisions likely to arise in the ordinary course of the trustee's duties and activities. Once a student has completed the program, they are required to obtain continuing education credits each year in order to retain their CPPT designation. The certification program requires a monetary commitment from the pension board and a time and study commitment from program participants.

Pension Fundamentals for New Trustees

Virtual Program

This program is intended to be a primer for a new trustee walking into their role on the pension board. This one-day virtual program will cover the various roles people play in the pension system, give a rundown of how a defined benefit plan works, and familiarize a new trustee with the language, players, and lay of the land they'll come to know in their new role. In addition to this program, participants will receive access to a digital reference book full of useful information for trustees no matter their experience level.

This program is a requirement for any trustee intending to enroll in the CPPT Program. Trustees must complete this program before entering into the Basic CPPT course.

CEU Program

Our Continuing Education Program is offered at each of our Trustee Schools divided into three experience levels: Foundational Learning for trustees with minimal experience, Accelerated Learning recommended for trustees with three or more years of experience, and our Exchange Learning to offer an environment for open discussion and shared experiences. This program is open to all trustees, but once a trustee has completed their CPPT certification, they must begin earning Continuing Education Units (CEUs) on an annual basis to maintain that certification.

Trustee Leadership Council (TLC) Program



The Trustee Leadership Council Class of 2026 begins their journey with this newly established FPPTA certification program for experienced trustees creating a pipeline of knowledgeable principals ready to take their place in leadership roles for generational change on their pension boards.

The Trustee Leadership Council is designed for the more seasoned trustees, requiring participants to have their CPPT designation in order to register. The cumulation of all FPPTA educational programs provides participants in this program to put their knowledge to work in this three-level yearlong course. Enrollees will dissect case studies of pension plans and assess the decisions made at various stages of plan funding. It will challenge traditional thinking around plan design and the best ways to safeguard and grow the fund to meet its obligations. Participants will be tasked with consensus building, team work, and collaboration. All in all, this is a course of rigor, but a unique opportunity to experience trustee education at the crossroads of conceptual and practical.

The program has three segments: two levels of training/learning (at each of our two annual Trustee Schools), and the third level, a stand-alone event held over a three-day period. TLC training is where theory meets practice. Participants will be grouped into teams and tasked with analyzing Pension Board decisions via selected case studies within the state of Florida.

There is a cap of 25 participants for this program. Participants that meet the participation requirements will be admitted on a first-come, first-serve basis. Once the program is full, participants who are not admitted to this year's program will be placed on a waiting list and will have the ability to participate next year.

This course will be completed over three levels and participants are required to attend each level consecutively. Each participant must attend the upcoming 2025 Fall Trustee School, the 2026 Winter Trustee School, and a third three-day event in April of 2026. Please check with your board's travel policy to ensure your ability to attend all three events.

There will be homework! Participants are expected to complete select readings throughout the program. In addition, this program involves a team project that will require participants to meet via Zoom between in-person events.

This program will not be for everyone. Please thoughtfully consider if your schedule and desire will allow your effective participation.

Virtual Training

The FPPTA Provides Periodic virtual training sessions on a wide array of topics. Currently offered in 2025, the FPPTA is offering Ethics Training on required financial disclosure rules for public trustees and education regarding the acceptance and the disclosing of gifts as a public official.



January, 2025 Agenda



CPPT & ORIENTATION PROGRAM

SUNDAY

General Session

8:30 - 8:45 AM

Welcome

Kim Prior, CEO

Florida Public Pension Trustees Association

8:45 - 9:15 AM

The Mission of the FPPTA

Dwight Mattingly, Chairman

FPPTA Board of Directors

9:15 - 10:15 AM

Shaping the Future - Trustee by Trustee

FPPTA Education & Resources

Sean McKinstry

Fred Nesbitt

Florida Public Pension Trustees Association

10:15 - 10:30 AM

Morning Break

10:30 - 11:15 AM

The FPPTA Trustee Mentorship Program

Gee Cowan & Norris Park

FPPTA Education Committee

11:15 - 12:15 PM

Capacity to Serve as Exemplary Leaders & Stewards

Don Trone

Center for Board Fiduciaries

12:15 - 1:15 PM

Lunch Break

1:15 - 2:00 PM

The History of Public Pensions

Adam Levinson

Klausner, Kauffman, Jensen & Levinson, PA

2:00 - 3:30 PM

Water the Bamboo - Keynote Address

Greg Bell

Thought Leader, Business Consultant, Leadership Coach



CPPT AGENDA

MONDAY

General Session			
7:50 - 8:00 AM	FPPTA Opening Comments Kim Prior, CEO		
8:00 - 10:00 AM	Don't Farm Alone Greg Bell <i>Thought Leader, Business Consultant, Leadership Coach</i>		
10:00 - 10:30 AM	Morning Refreshment Break		
	Basic	Intermediate	Advanced
10:30 - 11:00 AM	Board Meeting Basics Steve Corbet <i>FPPTA Education Committee</i>	FPPTA Pension Plan Data Center Fred Nesbitt, PhD <i>FPPTA Education Committee</i>	Review of Risk & Volatility Steve Roth, CPPT <i>Dahab & Associates</i>
11:05 - 11:35 AM	Behavioral Governance - Decision Making Don Trone <i>Center For Board Fiduciaries</i>	Chapter 112 - 175 - 185 Adam Levinson <i>Klausner, Kaufman, Jensen, & Levinson, PA</i>	Fixed Income Markets Jeff Detwiler <i>Garcia Hamilton & Associates</i>
11:40 - 12:10 PM	The Custodian Mark Rhein <i>Salem Trust Company</i>	(60 minutes)	Capital Markets - Equity Geoff Gerber <i>Twin Capital Management</i>
12:10 - 1:30 PM	Lunch Break		
1:30 - 2:00 PM	The Administrator Scott Baur <i>Resource Centers</i>	Investment Consultant/ Manager Search Scott Owens <i>Graystone Consulting</i>	Private Equity Rob Hatch <i>Constitution Capital Partners</i>
2:05 - 2:35 PM	The Actuary Eric Atwater <i>Aon</i>	Advancing Ethics & Professionalism Caroline Klancke <i>Florida Ethics Institute</i>	Private Debt Laura Stolfi <i>Nuveen</i>
2:40 - 3:10 PM	The Investment Consultant Tyler Grumbles <i>Mariner</i>	(60 minutes)	Modifications of Pension Plans Mark Floyd <i>Mierzwa & Floyd, P.A.</i>
3:10 - 3:30 PM	Afternoon Break		
3:30 - 4:30 PM	Basic Review Norris Park Anthony Xuereb Steve Aspinall	Intermediate Review Lynn Bernstein Katie Byrne Warren West	Advanced Review Stefanie Leverette Kerry Richardville Matt Hettler
4:30 - 11:00 PM	Hospitality and Study Hall		



CPPT AGENDA

TUESDAY

	Basic	Intermediate	Advanced
8:30 - 9:00 AM	Ethics in Action Kenneth Harrison <i>Sugarman & Susskind</i>	Equity Managers Meeting Report Megan Anderson <i>Nuveen</i>	Disability Process Pedro Herrera <i>Sugarman & Susskind</i>
9:05 - 9:35 AM	Caroline Klancke <i>Florida Ethics Institute</i> (60 minutes)	The Fixed Income Manager Report Ryon Acey <i>Agincourt Capital Management</i>	(60 minutes)
9:40 - 10:10 AM	The Attorney Ricki Levy <i>Lorium Law</i>	The Actuarial Report Sara Carlson <i>Foster & Foster Consulting</i>	Establishing a Funding Policy Pete Strong <i>Gabriel Roeder & Smith</i>
10:10 - 10:30 AM	Morning Refreshment Break		
10:30 - 11:00 AM	The Role of an Investment Manager Anthony Xuereb <i>Polen Capital Management</i>	Investment Consultant/ Asset Allocation Mitchell Brennan <i>BCA, Inc</i>	Impact of Changing Actuarial Assumptions Chad Little <i>Freiman Little Actuaries</i>
11:05 - 11:35 AM	The Importance of Diversification Jason Turner <i>Great Lakes Advisors</i>	Real Estate Performance Report Deb Schwartz <i>Barings</i>	Ethics Master Class Caroline Klancke <i>Florida Ethics Institute</i> (60 minutes)
11:40 - 12:10 PM	Investment & Economic Cycles Kerry Richardville <i>Mariner</i>	Investment Consultant Report Scott Owens <i>Graystone Consulting</i>	
12:10 - 1:30 PM	Lunch Break		
1:30 - 2:00 PM	Introduction to Real Estate Tim Nash <i>Intercontinental Real Estate</i>	Behavioral Governance - Leadership Don Trone <i>Center for Board Fiduciaries</i>	Emerging Markets Kurt Wood <i>DRZ</i>
2:05 - 2:35 PM	Equity Markets Brad Penter <i>Callan, LLC</i>	Rebalancing Your Portfolio Aaron Lally <i>Meketa Investment Group</i>	Real Assets William Dahab <i>Dahab & Associates</i>
2:40 - 3:10 PM	Capital Markets - Fixed Income Paul Lundmark <i>Richmond Capital Management</i>	Understanding Non-Traditional Assets Beth Bowen <i>Asset Consulting Group</i>	Behavioral Governance - Stewardship Don Trone <i>Center for Board Fiduciaries</i>
3:10 - 3:30 PM	Afternoon Break		
3:30 - 4:30 PM	Basic Review	Intermediate Review	Advanced Review
4:30 - 11:00 PM	Hospitality and Study Hall		



CEU AGENDA

MONDAY

General Session

7:50 - 8:00 AM

FPPTA - Opening Comments
Kim Prior, CEO

8:00 - 10:00 AM

Don't Farm Alone
Greg Bell
Thought Leader, Business Consultant, Leadership Coach

10:00 - 10:30 AM

Morning Refreshment Break

Foundational Learning

Accelerated Learning

Exchange Learning

10:30 - 11:00 AM

Pensionomics Florida State Data 2025
Tyler Bond
National Institute on Retirement Security

The Art of Private Equity Co-Investing
Champ Raju
PPM America Capital Partners

Understanding Private Markets
Kerry Richardville - Moderator
Mariner

11:05 - 11:35 AM

Importance of COLA's for Pension Plans
Jeffrey Amrose
Gabriel Roeder Smith & Company

Election Impact on the U.S. Equities Market
Maria Katsileros
Aristotle Capital Management

Robert Hatch
Constitution Capital Partners
Laura Stolfi
Nuveen
Leanne Schmitt
Star Mountain Capital
(60 minutes)

11:40 - 12:10 PM

Emerging Markets in your Portfolio
Natascha Willians
ABS Global Investments

AI, Big Data, Cybersecurity
Why Tech? Why Now?
Dave Smith
Bailard, Inc

No Session

12:10 - 1:30 PM

Lunch Break

1:30 - 2:00 PM

Passive-Aggressive Investing: The Hidden Risks of Indexing
Liridon Gila
Sawgrass Asset Management

Accessing the Emerging Markets Opportunity in Today's Environment
Natascha Willians
ABS Global Investments

Public Pension & Financial Markets
Sean McKinstry - Moderator
FPPTA Education Committee
Tyler Bond
National Institute on Retirement Security

2:05 - 3:10 PM

Roles & Responsibilities Related to Securities Litigation
Brent Chudachek
Lorium Law
Mark Rhein
Salem Trust Company
Adam Savett
Wolf Popper LLP
Kurt Vroman
Deltona Firefighters Pension Fund
(60 minutes)

Understanding Investment Benchmarks
Beth Bowen
Asset Consulting Group
(60 minutes)

Katie Comstock
Aon
(60 minutes)

3:10 - 3:30 PM

Afternoon Break

General Session

3:30 - 4:30 PM

Social Security Update
Kurt Czarnowski
Czarnowski Consulting

4:30 - 11:00 PM

Hospitality and Study Hall



CEU AGENDA

TUESDAY

General Session

Election Implications for U.S. Equities

Jeffrey Schulze

Clearbridge Investments

8:30 - 9:15 AM

Supply Chain Dynamics - The Reshaping of Global Trade

Kurt Wood

DRZ

9:15 - 10:10 AM

Morning Refreshment Break

10:10 - 10:30 AM

Foundational Learning

Balancing Risk in the Uneven Interest Rate Environment

Brian Elliott

Genter Capital Management

10:30 - 11:00 AM

Accelerated Learning

Global Infrastructure & National Resources

Brian Blongastainer

Newton Investment Management

11:05 - 11:35 AM

Understanding Actuarial Valuations and Their Impact

Sara Carlson

Foster-Foster Consulting
(60 minutes)

Disability Case Study

Pedro Herrera

Sugarman Susskind Braswell & Herrera
(60 minutes)

11:40 - 12:10 PM

Exchange Learning

The Present & Future Outlook in the Bond Market

Dave West - Moderator

Mariner

Daniel Carter

Fort Washington Investment Advisors

Jeff Detwiler

Garcia Hamilton & Associates

Chris Caputo

Integrity Fixed Income Management
(60 minutes)

12:10 - 1:30 PM

Lunch Break

Understanding Infrastructure

Brian Collet

I Squared

1:30 - 2:00 PM

The Impact of U.S. Tariffs on China and the Emerging Market Countries

Marc Miller

DRZ

Key Resources for Pension Plan Funding

Fred Nesbitt - Moderator

FPPTA Education Committee

Dave West

Mariner

Pete Strong

Gabriel Roeder Smith & Company
(60 minutes)

2:05 - 2:35 PM

Understanding the Stock Market and Exchanges

Steve Stack

Highland Capital Management, LLC

The Real Estate Rebound

Kevin White

DWS Asset Management

2:40 - 3:10 PM

Securities Litigation - Portfolio Monitoring

Andrea Farah

Lowey Dannenberg P.C.

U.S. Farmland's Purpose in Institutional Portfolios

David Martin

U.S. Agriculture, LLC

No Session

3:10 - 3:30 PM

Afternoon Break

General Session

FPPTA Legal Panel

Ken Harrison - Moderator (FPPTA Education Committee)

Ron Cohen (Lorium Law)

Pedro Herrera (Sugarman Susskind Braswell & Herrera)

Bonni Jensen (Klausner, Kauffman, Jensen, Levinson)

3:30 - 4:30 PM

Hospitality and Study Hall

4:30 - 11:00 PM



CPPT AGENDA

WEDNESDAY

8:00 - 10:00 AM

Electronic CPPT Testing



CEU AGENDA

WEDNESDAY

General Session

8:45 - 9:00 AM

FPPTA Update
Kim Prior, CEO

9:00 - 10:00 AM

Diagnosis & Treatment of PTSD
Dr. Bryan T. Reuther
Reuther Psychological and Consultation Services, PLLC



Dr. Bryan T. Reuther

What is PTSD?

Post-traumatic stress disorder (PTSD) is a mental health problem. PTSD can only develop after a person experiences or witnesses a life-threatening event. It is natural to feel afraid during and after a traumatic situation. Fear is a part of the body's "fight-or-flight" response, which helps us avoid or respond to potential danger. People may experience a range of reactions after trauma, and most people recover from initial symptoms over time. Those who continue to experience problems may be diagnosed with PTSD.

In this session, Dr. Reuther will review the history of PTSD and discuss how prevalent it is in first-responder populations. He will then define what a traumatic event is and cover the diagnostic criteria of PTSD according to the Diagnostic Manual of Mental Disorders, 5th edition text revision (DSM-5-TR). Dr. Reuther will explain how a comprehensive PTSD assessment is conducted and discuss how PTSD is treated.



TLC AGENDA

SUNDAY

1:30 - 1:45 PM	Welcome to TLC Level 2 Peter C. Haggood - FPPTA Director of Education
1:45 - 2:15 PM	Introduction to the FPPTA Bot Don Trone - FPPTA Education Committee
2:15 - 2:30 PM	Pension Formula Component - " C " Russ Kamp - FPPTA Education Committee
2:30 - 2:45 PM	Pension Formula Component - " I " Steve Roth - FPPTA Education Committee
2:45 - 3:00 PM	Pension Formula Component - " B " Joe Griffin - FPPTA Education Committee
3:00 - 3:15 PM	Pension Formula Component - " E " Toby Rabelo - FPPTA Education Committee
3:15 - 4:15 PM	TLC Team Meetings - Pension Formula Knowledge Objectives Team Nash - The Pension Panthers - Team Trifecta
4:15 - 5:00 PM	TLC General Session - Pension Formula TLC Team vs FPPTA Bot Don Trone - FPPTA Education Committee



TLC AGENDA

MONDAY

8:00 - 10:00 AM	TLC Case Study - Palm Tran - ATU 1577 Dwight Mattingly, Chairman Chad Little, Actuary
10:00 - 10:15 AM	Morning Refreshment Break
10:15 - 12:00 PM	TLC Team Meetings - Cook County Case Study Introduction to the Case Study Team Nash - The Pension Panthers - Team Trifecta
12:10 - 1:30 PM	Lunch Break
1:30 - 3:15 PM	Cook County Case Study - Session 1 Asset Allocation - Impact of Risk on Return Geoff Gerber - FPPTA Education Committee
3:15 - 3:30 PM	Afternoon Break
3:30 - 5:00 PM	Cook County Case Study - Session 2 Intro to Case Exhibits - Spreadsheets & Questions Geoff Gerber - FPPTA Education Committee



TLC AGENDA

TUESDAY

8:30 - 10:30 AM

Cook County Case Study - Session 3
Alternative Investments Within the Asset Allocation
Geoff Gerber - FPPTA Education Committee

10:30 - 10:45 AM

Morning Refreshment Break

10:45 - 12:00 PM

Cook County Case Study - Session 4
What Decision did Cook County Make in 2017
Geoff Gerber - FPPTA Education Committee

12:10 - 1:30 PM

Lunch Break

1:30 - 3:15 PM

TLC Team Meetings - Cook County Case Study
Case Study Questions
Team Nash - **The Pension Panthers** - **Team Trifecta**

3:15 - 3:30 PM

Afternoon Break

3:30 - 4:30 PM

Cook County Case Study - Session 5
Group Discussion of Case Study Questions
Geoff Gerber - FPPTA Education Committee

4:30 - 6:00 PM

TLC Sponsor's Reception



Meet the FPPTA Team!

Board of Directors



Dwight Mattingly, CPPT, TLC
Chairman



Christopher Spencer, CPPT, TLC
Vice-Chairman



Warren West, CPPT
Secretary



Ann Thompson, CPPT
Treasurer



M. Norris Park, CPPT
Director



Tim Olsen, CPPT
Director



Kurt Vroman, CPPT
Director



Ken Harrison, CPPT
Director Emeritus



Pete Prior, CPPT
Director Emeritus



Steve Aspinall
Director Emeritus



Raymond T. Edmondson, CPPT
Director Emeritus
1937 – 2017



Renee Lipton, CPPT
Director Emeritus
1935 – 2023

Education Committee

Board of Directors

Dwight Mattingly

FPPTA Board of Directors' Chairman

Warren West

FPPTA Board of Directors' Secretary

Chris Spencer

FPPTA Board of Directors' Vice-Chairman

Norris Parks

FPPTA Board of Directors

Kurt Vroman

FPPTA Board of Directors

FPPTA Associate Members

Anthony Xuereb

Polen Capital

Steve Roth

Dahab Associates, Inc.

Kerry Richardville

AndCo Consulting

Tim Nash

Intercontinental Real Estate

Joe Griffin

Foster & Foster Consulting Actuaries

FPPTA Trustee Members

Matt Hettler

Casselberry Police & Fire

Phyllis Shaw

Hollywood Employees Retirement Fund

Lynn Bernstein

Miami Beach Employees Retirement Plan

Paul O'Connell

Pompano Beach P&F Pension Fund

Gee Cowan

Ocoee Ge

FPPTA Education Staff

Sean McKinstry

FPPTA Director of Education-Committee Chair

Dave West

FPPTA Director of Curriculum

Steve Corbet

Committee Vice Chair

Steve Aspinall

FPPTA Director Emeritus

Fred Nesbitt

FPPTA Media Consultant

Industry Professionals

Brian Devine

Newton Investment Management North America LLC

Russ Kamp

Ryam ALM

Toby Rabelo

Miami Beach Police Relief & Pension Fund

Katie Hammond

JP Morgan Asset Management

Greg Butler

Cooper City Fire

Geoff Gerber

Twin Capital Management

Advisory Members

Pete Prior

FPPTA Director Emeritus

Ken Harrison

FPPTA Director Emeritus

Tim Olsen

FPPTA Board of Directors

Katie Byrne

Volunteer

Debbie McCoy

Tallahassee 175 Pension Fund

Jerry Navarette

Newton Investment Management

Peter Hapgood

Senior Education Consultant

FPPTA Staff

Kim Prior

Chief Executive Officer

MJ Chwalik

Chief Operating Officer

Brenda Crivelli

CPPT Manager

Candice Lee

Graphic Designer

Dave Puscher

Sebastian Municipal Police Officers' Fund

Mentorship Committee



Warren West

apfire5@yahoo.com
(863) 414-5551



Phyllis Shaw

pshaw@hollywood.org
(954) 348-0929



Lynn Bernstein

lynnwbernstein@gmail.com
(305) 790-0090



Norris Park

mnpark0028@gmail.com
(321) 750-1626



Matthew Hettler

mhattler@seminolecountyfl.gov
(321) 303-3595



Gee Cowan

gcowan@ocoe.org
(407) 491-0895

Staff



Kim Prior

Chief Executive Officer
kim@fppta.org



MJ Chwalik

Chief Operating Officer
mj@fppta.org



Cindy Berta

Finance Manager
cindy@fppta.org



Sean McKinstry

Director of Education
seanmckinstry@fppta.org



Lois Edmondson

**Membership &
Registration Specialist**
lois@fppta.org



Brenda Crivelli

CPPT Coordinator
brenda@fppta.org



Candice Lee

Graphic Designer
candice@fppta.org

