



Trustee Certification Program

Basic Level Guidebook
Monday

Shaping the Future - Trustee by Trustee



Dear Attendees,

Welcome and congratulations on starting your journey to becoming a Certified Public Pension Trustee through the FPPTA's certification program. I would first like to commend you for taking on the role of trustee for your municipal pension plan and ensuring the promise of a secure retirement to our public servants is fulfilled.

The FPPTA's certification program has identified four pillars of education for Florida's municipal pension trustees: 1. The Pension Formula: Contributions + Income = Benefits + Expenses; 2. Ethics and Professionalism; 3. Behavioral Governance & Decision Making; and 4. Economics. Each of these pillars will be incorporated into the curriculum as you make your way through the three tracks (Basic, Intermediate, and Advanced) of the CPPT program. In this Basic track,

you will receive a strong foundational knowledge of actuarial and plan design concepts that will provide a framework for understanding the investment, legal topics, and real-life case studies you will encounter at future trustee schools. It may seem overwhelming at times, but rest assured you are surrounded by a wealth of knowledge and experience in our presenters, experienced trustees, and members of the FPPTA Education Committee -- many of whom were in the same place you find yourself now. Don't be afraid to ask questions; we are all here to learn.

Over the next few days, I hope you take the time to bond with your fellow trustees, engage with the speakers, and lean on your room monitors and mentors to get the most out of your experience. The FPPTA community is welcoming and eager to help you in any way we can.

The role and responsibility of a pension trustee is important to our communities across the state of Florida. Thank you for heeding the call and welcome to the FPPTA.

Sean McKinstry, CPPT, TLC
Education Director



Monday

8:00 - 10:00 AM	Bamboo Farmer Mindset Greg Bell <i>Thought Leader, Business Consultant, Leadership Coach</i>
10:00 - 10:30 AM	Morning Break
10:30 - 11:15 AM	Governance: Capacity to Serve as Exemplary Leaders & Stewards Don Trone <i>Behavioral Governance Institute</i>
11:20 - 12:10 PM	Overview of Trustee Ethics in Florida Caroline Klancke , <i>Florida Ethics Institute</i> Ken Harrison , <i>Sugarman Susskind Braswell & Herrera</i>
12:10 - 1:30 PM	Lunch Break
1:30 - 2:30 PM	Fundamental Equation of Pension Plan Financing Pension Formula: $C + I = B + E$ Sara Carlson <i>Foster & Foster Actuaries and Consultants</i>
2:35 - 3:10 PM	Defined Benefit vs. Defined Contribution Pensions in Florida Kevin Spanier <i>Gallagher</i>
3:10 - 3:30 PM	Afternoon Break
3:30 - 4:30 PM	Foundational Economics for Public Pension Plan Trustees Dr. Mary Kelly

Tuesday

8:30 - 9:15 AM	Pre-Funding vs. Pay-as-you-Go Pension Plans Eric Atwater <i>Aon</i>
9:20 - 10:10 AM	Actuarial Valuations of Defined Benefit Plans Kevin Spanier <i>Gallagher</i>
10:10 - 10:30 AM	Morning Break
10:30 - 12:10 PM	Actuarial Alphabet Soup Brad Armstrong, Peter Tramont & Piotr Krekora <i>Gabriel Roeder Smith</i>
12:10 - 1:30 PM	Lunch Break
1:30 - 3:05 PM	Funding Implications Doug Lozen <i>Foster & Foster Actuaries and Consultants</i>
3:10 - 3:30 PM	Afternoon Break
3:30 - 4:30 PM	Basic Program Review

Governance: Capacity to Serve as Exemplary Leaders & Stewards



Don Trone

Behavioral Governance Institute

Don Trone, GFS is the CEO of the Behavioral Governance Institute (BGI) which studies the interrelationships between leadership, stewardship, and decision-making.

Don was the founding CEO of fi360; founder and President of the Foundation for Fiduciary Studies; and the first person to direct the Institute for Leadership at the U.S. Coast Guard Academy.

In 2015 Don was named by Investment Advisor magazine as the "Father of Fiduciary" and one of the 35 most influential people in the financial services industry. In 2003, he was appointed by the U.S. Secretary of Labor to represent the investment counseling industry on the ERISA Advisory Council, in 2007 he testified before the U.S. Senate Finance Committee on fiduciary best practices; and in 2015 he testified before the U.S. Department of Labor against the proposed DOL Rule.

Don is a graduate of the U.S. Coast Guard Academy (Class President), and served for ten years on active duty, most notably as a long-range search and rescue helicopter pilot. He is a four-time recipient of the Sikorsky Helicopter Rescue Award.

Governance: Capacity to Serve as Exemplary Leaders & Stewards

Behavioral governance bridges the gap between a trustee's fiduciary duties and human behavior. This presentation demonstrates the importance of trustees to govern responsibly, resist biases, manage risk prudently, and serve the long-term interests of retirees with integrity.

FPPTA Presentation

FLORIDA PUBLIC PENSION TRUSTEES ASSOCIATION

Good Governance and how it Impacts Your Capacity
to Serve as an Exemplary Leader and Steward

Don Trone
CEO



Shaping the Future - Trustee by Trustee

Basic



FOUR LESSONS FROM KATRINA:

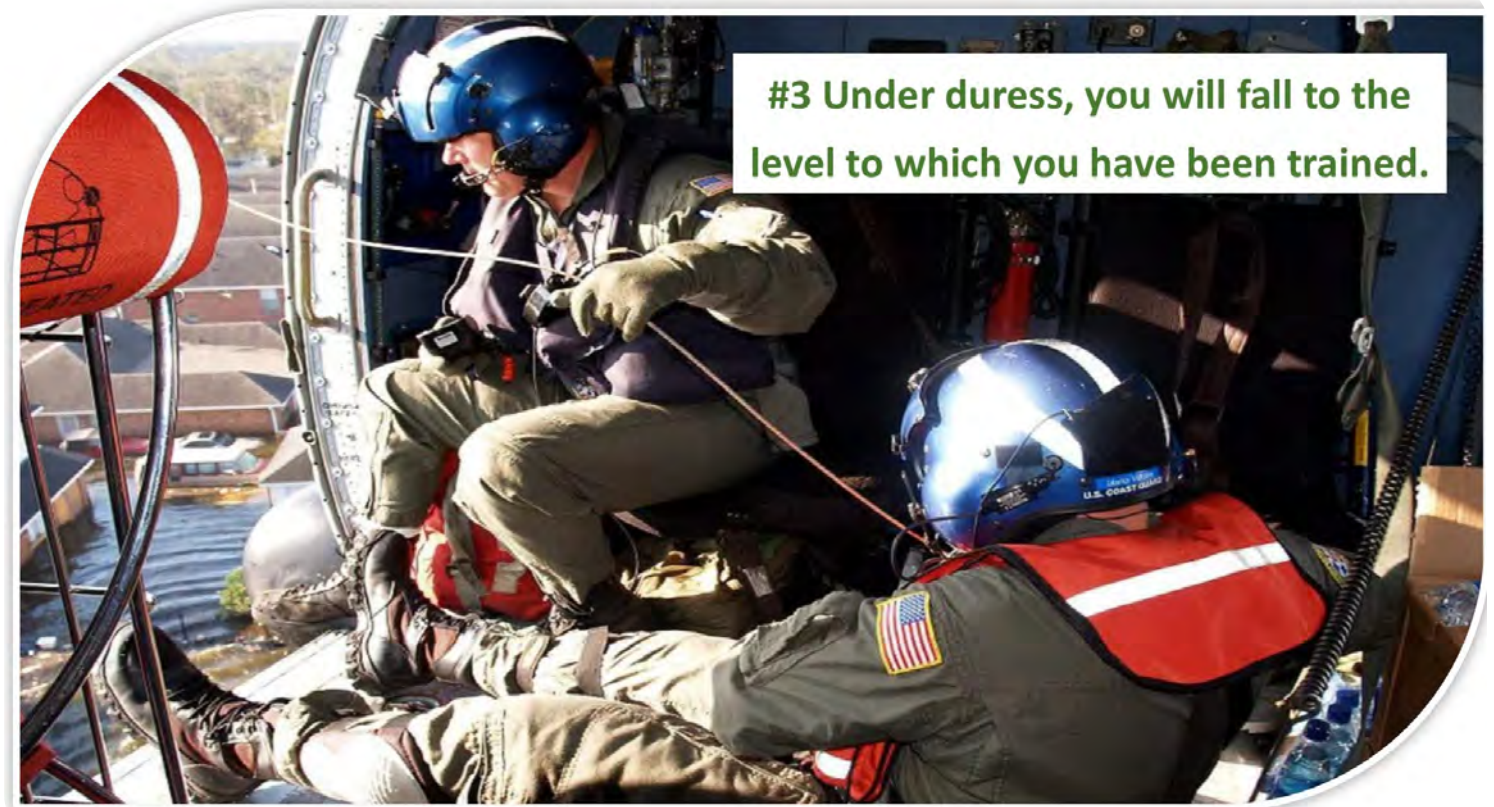
#1 NORMALITY BIAS

...a mental state people enter when facing a crisis. It causes people to underestimate both the possibility of a disaster and its possible effects.

This may result in situations where people fail to adequately prepare.



#2. A crisis is a bad time to start
passing out business cards



#3 Under duress, you will fall to the
level to which you have been trained.

#4 One's capacity to handle a crisis is a function of their Behavioral Governance



ORIGINS OF BEHAVIORAL GOVERNANCE

The quest to understand how we can be better leaders, stewards, and decision-makers for our clan and tribe is as old as the written and spoken language.



Sean Hannah, Ph.D.
U.S. Military Academy



Don Trone
U.S. Coast Guard Academy

BEHAVIORAL GOVERNANCE DEFINED

Behavioral Governance is a new body of research that studies the interrelationships between Leadership, Stewardship, and Governance



- **Leadership** is your capacity to inspire and engage others.
- **Stewardship** is your passion and discipline to protect the long-term interests of those you serve.
- **Governance** is your ability to manage the details of a prudent decision-making process.

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Behavioral Governance Framework



- Leadership is your capacity to inspire and engage others.
- Stewardship is your passion and discipline to protect the long-term interests of others.
- Governance is your ability to manage the details of a prudent decision-making process.



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Management is about influencing processes, systems, and resources.

Leadership is about influencing the people that drive those processes and systems.

Behavioral Governance is understanding how to synchronize both functions.



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Behavioral Governance is Universal



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Leadership



Leadership is your capacity to inspire and engage others.

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Stewardship



Stewardship is the passion and discipline to protect the long-term interests of others.

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Governance



Governance is your ability to manage the details of a prudent decision-making process.

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Behavioral Sciences Triad™



The Triad equips key decision-makers to identify and mitigate behavioral risk across decision-making roles and responsibilities.

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Basic





Behavioral Governance

Behavioral Governance is the study of the interrelationships between Leadership, Stewardship, and Decision-making

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Behavioral Finance

Behavioral finance studies how psychological biases and emotions influence financial decisions, often irrationally and unpredictably.

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Behavioral economics studies how psychological, emotional, and social factors influence economic decisions and market outcomes.

Neurological Capacity



Neurological capacity refers to your brain's ability to process, store, and respond to complex information.

The Impact of Neurological Capacity



These markers form a neurocognitive foundation for high-functioning decision-makers. They:

- Anchor **Behavioral Governance** in ethical, adaptive, and socially intelligent leadership
- Inform **Behavioral Economics** by shaping how incentives, choices, and framing are perceived
- Refine **Behavioral Finance** by regulating emotional responses to risk, return, and uncertainty

Together, they operationalize the Behavioral Sciences Triad™ not just as a conceptual model—but as a human-centered framework for improving decision-making outcomes.

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We need Trustees who are...

Leaders of character, competence, and courage; who are passionate and disciplined about protecting the long-term interests of those they serve.



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Basic





We need Trustees who are...

Active listeners and observant. Who can promote inclusiveness and gather information about a particular situation and use it to engage others and to foster shared reflections.

We need Trustees who are...

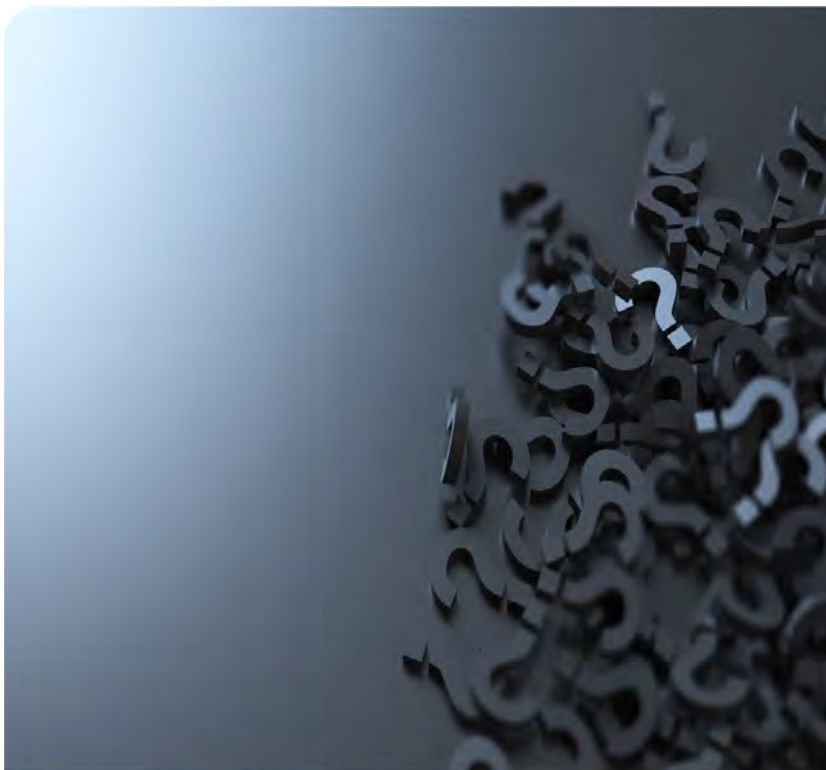
Not afraid to be vulnerable and recognize that they don't have to win every argument to be in control. Who are able to absorb more risk and be more resilient.





We need Trustees who...

Have the capacity to evolve.
Who can pivot as new ideas and challenges are presented.



We need Trustees who...

Can breakdown stereotypes, be inclusive of others, and be more transparent about their feelings.
Who can accept uncertainty with fortitude and calm.



We need Financial Stewards who are...

Genuine in both their written and spoken word, and who are able to adapt and customize their communications to their audience. Who can be inclusive of contentious points, yet also be affable and capable of demonstrating a sense of humor.

We need Trustees who are...

Able to keep a sense of perspective in the face of adversity; who can see optimistic outcomes despite known risks.



We need Trustees who are...

Comfortable being a champion of others' initiatives. Who may be the smartest person in the room, but won't have to prove it. Who have a sense of vision, and feel confident to move forward when others want to gather more facts.



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We need Trustees who...

Can do more with less and collaborate with team members who have diverse talents and ideas. Who will focus on issues that can be controlled and won't get hung up on missed opportunities.



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Basic





Perhaps the most
important, we need
Trustees who are...

Connected with their sense of
purpose, who are passionate
about their life's work, and
who have a well-defined
process for managing key
decisions.



Kenneth Harrison, Esq.

Ken Harrison holds a Juris Doctor Degree from the University of Miami School of Law, a Master of Science Degree in Management from Biscayne College (St. Thomas University), and a Bachelor of Business Degree with an accounting major from the University of Miami. He is a founding member of the Florida Pension Trustees Association (FPPTA), currently serving as Director Emeritus and is a Certified Public Pension Trustee. In 1991, Mr. Harrison completed a 27-year law enforcement career when he retired from the City of Miami (Florida) Police Department as Assistant Chief. For 16 years during his career in law enforcement, he served as a trustee for Miami's Police and Fire Pension Funds.

Additionally, for 10 of his years in law enforcement, Mr. Harrison was active in police labor organizations at the local, state and national levels. Mr. Harrison completed over 30 years of military service in 2002 when he retired from the United States Coast Guard Reserve as Captain (Colonel). Mr. Harrison was with the Coral Gables law firm of Sugarman Susskind Braswell & Herrera from 1997 until 2024 when he retired.



Caroline Klancke **Florida Ethics Institute**

Ms. Klancke is an attorney, ethicist, author, and lecturer. She serves as Florida State University's Associate Compliance Officer and Director of Ethics and Integrity Programs, where she also teaches Public Service Ethics. She is the founder and Executive Director of the Florida Ethics Institute. Ms. Klancke is the former General Counsel and Deputy Executive Director of the Florida Commission on Ethics where she assisted the agency in its constitutional mandate to interpret and enforce the Code of Ethics for Public Officers and Employees. Prior to her tenure with the Ethics Commission, she served as Chief Ethics Officer and Senior Attorney with the Florida Public Service Commission.

She is the author of the Florida Ethics Handbook—the only comprehensive guide to governmental ethics regulations in Florida. As a Certified Compliance & Ethics Professional (CCEP) she has lectured extensively for the Florida Commission on Ethics, the Florida Bar, Florida Association of Counties, and others on ethics, open government, and governmental and corporate compliance requirements.

Ethics in Action: Introduction to Ethics for Public Pension Trustees provides trustees with a clear overview of their ethical and legal responsibilities. It highlights Florida's constitutional and statutory standards, focusing on avoiding conflicts of interest, prohibitions on gifts and undue benefits, financial disclosure requirements, and the importance of transparency under the Sunshine Law. The core message is that public service is a public trust, and trustees must act with integrity to protect pension resources and maintain confidence in the system.

ETHICS IN ACTION:

Introduction to Ethics for Public Pension Trustees

Presented by
Kenneth R. Harrison Sr. Esq.
FPPTA Director Emeritus
&
Caroline Klancke, JD, CCEP
Florida Ethics Institute

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AUTHORITY

- Article II, Section 8, Florida Constitution
- Ethics in Government – A public office is a public trust, the people shall have the right to secure and secure that trust against abuse
- Part III, Chapter 112, Florida Statutes – Standards of conduct for public officers, employees of local governments
- Public officer – includes any person elected or appointed to hold office, including serving on an advisory board
- Commission on Ethics rules

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ACTIONS TO AVOID

- **Solicitation or acceptance of gifts** – Cannot solicit or accept anything of value based on an understanding that the intent was to influence the vote, official action or judgement of the public officer.
- **Doing Business with Agency** – Cannot directly or indirectly do any business with any business entity doing business with plan sponsor or any service provider thereto. Extends to extended family.
- **Salary and Expenses** – Cannot accept any compensation for serving as public officer, may have related expenses reimbursed.

GIFTS

- Restricted donor (ie vendor or lobbyist) giving gift valued at more than \$25 but less than \$100 must report the gift on Form 30 quarterly (by last day of quarter following quarter when gift was given)
 - Donor must notify recipient of gift at the time gift is made that gift will be disclosed.
- Filers of Form 1 may not accept (directly or indirectly) a gift valued at more than \$100 from a vendor or lobbyist, but may accept gift on behalf of governmental entity or charity provided promptly transferred to the entity.
- Gifts from unrestricted sources (ie not from vendors or lobbyists) valued at more than \$100 must be reported on Form 9

MEAL CONSIDERED GIFT

- Ethics rules originally did not consider a one time meal as a gift but was amended to include any meal as a gift

Identifying & Applying Voting Conflicts Law

s. 112.3143, F.S.

- Prohibited from voting on any measure that would result in a special (economic) private gain or loss TO YOU personally . . .
OR
- Which you know would result in a **special private gain or loss** to:
 - A relative
 - A business associate
 - A principal/employer by whom you are retained or the parent or subsidiary of your principal/employer



What to do:

s. 112.3143(3) and (4), F.S.

Appointed Public Officers:

1. Publicly disclose conflict;
2. Abstain from voting; AND
3. File a memorandum (CE Form 8B) prior to vote or within 15 days.

Also, disclose conflict before participating in any discussion

Solicitation

- Prohibited from asking for favor, payment or employment. s. 112.313(2) and (4), F.S.
 - Includes extended family.
- Prohibited from soliciting a gift from a lobbyist, employer of lobbyists, vendors and political committees. s. 112.3148, F.S.

COMPENSATION

- Prohibited from receiving salary or any form of compensation for serving as trustee.
- Expenses related to duties or responsibilities may be reimbursed.
- Per Diem may be provided
- Required to have travel and education policy

DUAL OFFICE HOLDING

- Prohibited from holding two policy making positions with sponsoring agency
- Required to give up oldest position
- **But see** AGO 2004-05 (advising that a city council member may serve on the general employees pension board when such service is provided for by city code).

Sunshine Law

- Prohibited from discussing business of Plan outside a public meeting
- Meeting must be noticed and held in location accessible to general public.
- May engage in networking with trustees from other boards.

CONFLICTS OF INTEREST

s. 112.313, F.S.

Doing Business with
One's Own Agency

&

Conflicting Employment
and Contractual
Relationships

WHAT IS A CONFLICT OF INTEREST?

“Conflict” or “Conflict of Interest” means a situation in which regard for a private interest tends to lead to disregard of a public duty or interest.

s. 112.312(8), F.S.



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CONFLICTS OF INTEREST

Doing Business with One's Own Agency

- Cannot do business with a company in which you or your spouse or child are an officer/director, or own a material interest (of more than 5%)
- Cannot sell realty, goods, or services to your own agency

Conflicting Employment & Contractual Relationship

- Cannot have an employment or contractual relationship with any businesses that is doing business with your agency/board
- Nor can you have employment or contractual relationships that causes a frequently recurring conflict with public duties

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EXEMPTIONS

- **Grandfathering**—Contracts entered into prior to qualification for elective office, **appointment to public office**, or beginning public employment are **automatically exempted**. See CEO 96-30 and CEO 09-1.
- Exemptions in s. 112.313(12), F.S.
 - **Waiver of conflict by appointing board**
 - Sole source of supply
 - Sealed competitive bid
 - Sales of less than \$500 in any calendar year
 - And more!
- Additional exemption in s. 112.313(16), F.S. See CEO 91-55.

CONFLICTS OF INTEREST CASE STUDY

You are a Sunshine City Pension Board Trustee. In your private capacity you own a company, ABC Actuarial, that provides actuarial services throughout Florida. The Board needs an actuarial services provider. During a Board meeting you state that there is no need to undertake a competitive bidding process for these services as your company should be selected immediately. Thereafter, the Board votes to approve a contract with ABC Actuarial, and you abstain from the vote. What ethics issues does this scenario raise, if any?

FINANCIAL DISCLOSURE



Who Files Financial Disclosure?

Form 6

Full & Public Disclosure of
Financial Interests (5,000 +filers)

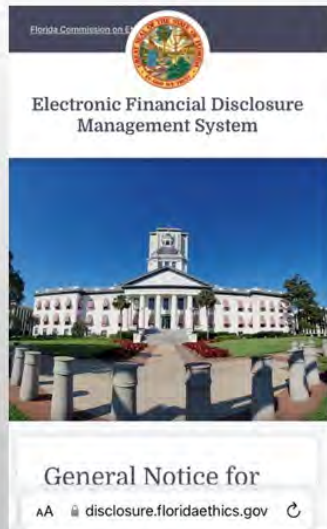
- All constitutional officers
- Art. II, s. 8(a), Fla. Const.
- Sect. 112.3144, F.S.

Form 1

Statement of Financial Interests
(35,000+ filers)

- Local Officers (including
all pension trustees)
- State Officers
- Specified State Employees
- Sect. 112.3145, F.S.

Electronic Financial Disclosure Management System



- Launched January 1, 2022.
- Enables the **electronic creation, submission, and publication** of financial disclosures.
- ALL Form 1 and Form 6 filers must use EFDMS to electronically create and publish their disclosure
- Troubleshooting: 850.488-7864 and disclosure@leg.state.fl.us

KEY FINANCIAL DISCLOSURE FACTS

- Initially due within **30 days of appointment** or election
- Due annually by **July 1** (with grace period until Sept. 1)
- After **Sept. 1**, fines of \$25/day for up to 60 days (\$1,500).
- Failure to file financial disclosure in any year can result in removal from public office if found to be willful.
- Final Form 1F due within 60 days of leaving position of trustee

Redaction Request for Personal Info

Florida Commission on Ethics

Public Records Exemption Request

Florida law provides that an agency shall treat social security numbers, bank account numbers, and debit, charge, and credit card numbers as automatically exempt from public disclosure. In addition, Florida law allows eligible persons to submit a written and notarized request that a non-employing agency maintain as exempt from public disclosure certain information and/or location information contained in records within the agency's custody.

The person entitled to the additional exemptions must submit a written and notarized request directly to this agency to maintain the exemption to the records in our custody. § 112.313(2)(b), F.S. You are not required to use this form; however, doing so will help us keep your information confidential. Please return this completed form to a written and notarized request to: Florida Commission on Ethics, P.O. Drawer 15-036, Tallahassee, Florida 32315.

If you or your spouse qualify or if you are the child of someone who qualifies, you are eligible to receive additional public records exemptions. Please check the box for any of the following that apply:

Active or Former:

- ☐ Law enforcement personnel, including correctional and correctional probation officers.
- ☐ Department of Children and Families personnel whose duties include investigating criminal activities.
- ☐ Department of Health personnel whose duties are to support the investigation of child abuse or neglect.
- ☐ Department of Revenue or local government personnel whose responsibilities include revenue collection and enforcement or child support enforcement.

Current or Former:

- ☐ General magistrate, special magistrate, judge of compensation claims, administrative law judge of the Division of Administrative Hearings, or child support enforcement hearing officer.
- ☐ County Tax Collector.
- ☐ Child protection team members.

Current or Former:

- ☐ Department of Financial Services nonlaw enforcement personnel whose duties include investigating consumer activities, securities, compensation coverage requirements and compliance, or state regulatory requirement violations.
- ☐ Supreme Court Justice, or judge of district court of appeal, circuit court, or county court.
- ☐ State attorney, associate state attorney, statewide prosecutor, or assistant state attorney.
- ☐ Public defender, assistant public defender, criminal conflict and civil regional counsel, and assistant criminal conflict and civil regional counsel.
- ☐ Human resources, labor relations, or employee relations director, assistant director, manager, or assistant manager of any local government agency or water management district whose duties include hiring/firing, employees, labor contract negotiation, grievance arbitration, or other personnel-related duties.
- ☐ Code Enforcement Officer.
- ☐ Guardian ad litem, as defined in § 39.820, F.S.
- ☐ Guardian ad litem, juvenile probation supervisor, detention superintendent, assistant detention superintendent, juvenile justice detention officers, and juvenile justice detention officer supervisor, juvenile justice residential care juvenile justice

- ☐ Juvenile justice counselor, supervisor, juvenile justice counselor administrator, senior human services counselor administrator, administrator of the agency, or social services counselor of the Department of Juvenile Justice.
- ☐ Department of Business and Professional Regulation investigator or inspector.
- ☐ Department of Health personnel involved in determining or adjudicating eligibility for social security disability benefits, investigating or prosecuting complaints filed against health care practitioners, or inspecting health care practitioners or health care facilities licensed by the Department of Health.
- ☐ Licensed practitioner consultant retained by an agency, or employee of such a consultant.
- ☐ Certified emergency medical technician or paramedic.
- ☐ Personnel employed in an agency's office of inspector general or internal audit department whose duties include auditing or investigating activities that could lead to criminal prosecution or administrative discipline.
- ☐ U.S. Attorney or Assistant U.S. Attorney, U.S. Courts of Appeal judge, U.S. district judge, or U.S. magistrate.
- ☐ Victim of sexual battery, aggravated child abuse, aggravated stalking, harassment, aggravated battery, or domestic violence (if applicable, must attach official verification that crime occurred; exemption applies only to individual victim of specified crime, not to the spouse or child of the victim).
- ☐ Confidential Informant.
- ☐ Nonlaw enforcement personnel of the Office of Financial Regulation whose duties include investigating fraud, theft, criminal activities related to fraud or theft, and violations of state regulatory requirements.
- ☐ Child Advocacy Center Director, manager, supervisor, and clinical employees.
- ☐ County correction treatment facility director, manager, supervisor, trustee, and clinical employees.
- ☐ Public guardians, and those employees of public guardians with fiduciary responsibilities.
- ☐ Staff and domestic violence advocates of domestic violence centers certified by the Department of Children and Families under Chapter 39.45, F.S.

☐ Yes, I qualify ☐ Yes, my spouse qualifies ☐ Yes, my parent qualifies

Printed Name: _____ Phone Number: _____

The residence address(es) you wish us to maintain as confidential: _____

OATH

I, the person whose name appears at the beginning of this form, do declare on oath or affirmation and say that the information requested on this form and any attachments thereto is true, accurate, and complete.

SIGNATURE OF REPORTING OFFICIAL OR CANDIDATE _____

Printed Name: _____ Title: _____

STATE OF FLORIDA

COUNTY OF _____

Subscribed to (or affirmed) and sworn to before me by reason of: ☐ personal presence or ☐ online notarization, this _____ day of _____, 20____.

(Signature of Notary Public—State of Florida)

(Print, Type, or Stamp Commissioned Number of Notary Public) _____

Personally Known ☐ OR Produced Identification _____

Type of Identification Produced _____

* If the manager is a director, partner, or controller, he or she must also be a director, partner, or controller of the corporation. If the manager is a director, partner, or controller of the corporation, he or she must also be a director, partner, or controller of the corporation.

** Exemption used for 3 years from time of request.

07/2021

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Misuse of Public Position

s. 112.313(6), F.S.

All public officers and employees are prohibited from **corruptly** using or attempting to use their public position or resources to secure a **special benefit, privilege, or exemption** for themselves or others.



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Prohibited Disproportionate Benefit

- Article II, Section 8 of the Florida Constitution.
- Effective **December 31, 2020**.
- Rule 34-18.001, Florida Administrative Code.
- CEO 19-23 and CEO 21-1.
- Prohibits all public officers and employees from **abusing** their position in order to obtain a **disproportionate benefit** for:
 - Themselves
 - Spouse or Children
 - Employer
 - Any business entity with whom they contract or serve as officer, partner, director, **or** own an interest.



The Pension Formula for Pension Plan Financing in Florida

At the heart of every public pension system lies a simple but powerful truth: the benefits promised must be financed by a combination of contributions and investment earnings. This relationship is often described as the fundamental equation for pension plan financing, and it **applies directly to Florida's public retirement systems, including the Florida Retirement System (FRS) and local municipal plans.**

The Equation

In its simplest form, the equation can be expressed as:

$$\text{Contributions} + \text{Investment Earnings} = \text{Benefits} + \text{Expenses}$$

This balance ensures that, over the long term, there are always sufficient resources to pay promised retirement benefits to plan participants. Let's break down each part of the equation:

Contributions

- **Employer contributions**, made by the sponsoring government entity (e.g., city, town, or district)
- **Employee contributions**, deducted from member paychecks as required by the and
- **State contributions**, distributed to sponsor and allocated under Chapters 175 and 185, and
- **Other contributions**, such as supplemental contributions, donations, pension obligations bonds, etc.
- The Board Actuary determines the annual required contribution in an actuarial valuation governed under Florida Statutes.
- Contributions can be set as a percentage of payroll or represented as a dollar amount and are intended to fund both current benefit accruals and a portion of any unfunded liabilities.

Fundamental Equation of Pension Plan Financing

$$C + I = B + E$$

Presented By:
Sara Carlson, ASA, EA, MAAA



Shaping the Future - Trustee by Trustee

FLORIDA PUBLIC PENSION TRUSTEES ASSOCIATION



$$C + I = B + E$$

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Investment Earnings

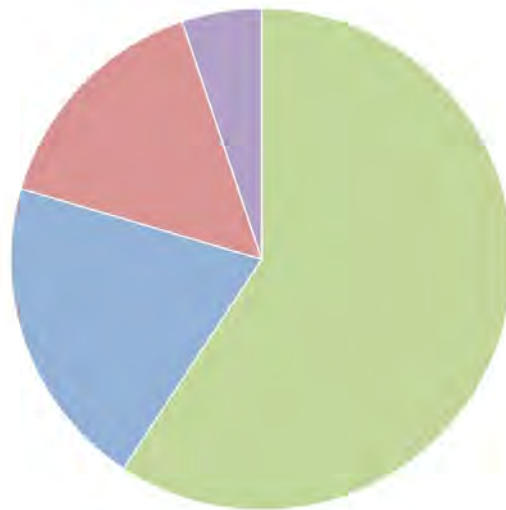
- All pre-funded Florida municipal plans invest their assets to generate income over time. Over time, investment earnings typically provide most pension financing— often accounting for 60–70% of benefits paid in mature systems. Investment income reduces the amount of contributions needed to fully fund future benefits and administrative costs.
- The Board Investment Consultant produces quarterly performance-monitoring reports for review. They also will bring in asset managers for the Board’s selection when appropriate. Furthermore, they develop the Board’s Investment Policy Statement (IPS) that outlines the target asset allocations, investment objectives, and investment guidelines.
- Pension funds pool contributions into professionally managed trust funds. Common investments include equities, fixed income, and alternative assets. The assumed rate of return on these investments is a critical actuarial assumption and affects the amount of contributions required.
- The assumed rate of return (set by the plan’s trustees with actuarial advice) is critical for projecting long-term sustainability.

Benefits

- 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.
- Benefits can be changed through local ordinances, resolutions, or state statute. The Board of Trustees cannot change the benefits.
- Benefit payments represent the largest outflow from the pension trust over time.
- These are the retirement, disability, and survivor benefits promised to members.

In Florida, benefits are defined by statute, meaning they are protected under state law and must be paid as promised.

Contributions



- Employer
- Employee
- 175/185 Monies
- Other

Role of Your Actuary

$$\textcircled{\mathbf{C}} = \mathbf{B} + \mathbf{E} - \mathbf{I}$$

- Annual valuations to determine contributions under Florida Statutes
- Disclosure information required under F.S. 112.664
- GASB 67/68 disclosures
- Benefit calculations and annual benefit statements
- Special studies (e.g.: experience studies, forecasts, etc.)

Expenses

- 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.

Why This Matters in Florida

The equation matters because it highlights the balance required for sustainability. If contributions and investment earnings are insufficient, the plan develops an unfunded liability. Florida addresses this risk by:

- Conducting **annual actuarial valuations** for the FRS and local plans.
- Adjusting employer contribution rates each year through legislative action.
- Maintaining a strong funding policy: as of recent reports, the FRS is funded at roughly 82–84%, a level considered healthy compared to many other states.

Comparison of FRS Retirement System

1. Same Equation, Different Scale

- Both systems rely on the same financing principle, but the FRS operates at a statewide scale, while municipal plans operate at the local level.

2. Contribution Structures Differ

- The FRS has **uniform statewide rules** for contributions and benefits, while municipal plans allow **local flexibility**, especially for employee rates and benefit formulas.

3. Investment Management

- FRS enjoys economies of scale and global diversification through the SBA.
- Municipal plans, while smaller, retain **local trustee control**, which can allow for responsiveness but also requires strong fiduciary oversight.

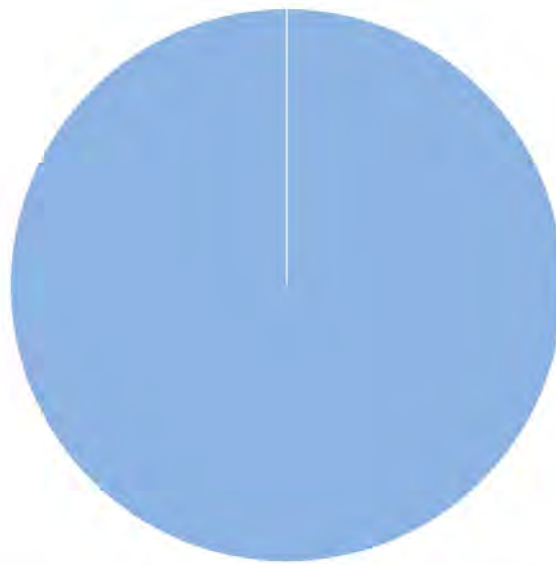
4. Benefit Design

- Municipal police/firefighter plans often provide **earlier retirement ages and higher accrual rates** than FRS Special Risk, reflecting the physically demanding nature of the work.

Narrative Takeaway

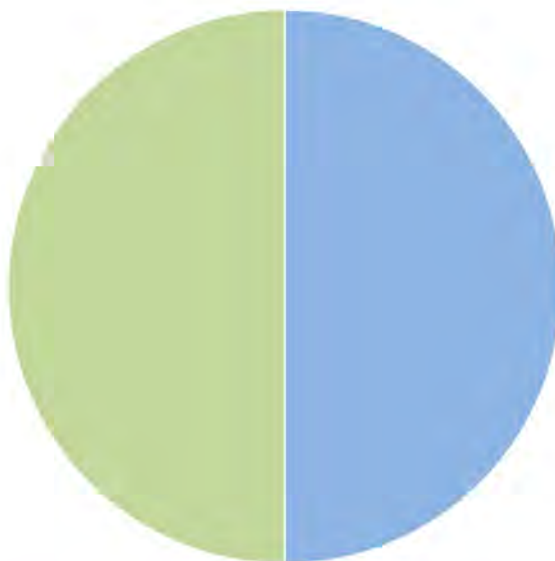
The Pension Formula applies equally to the FRS and to small towns across Florida. The difference lies in **who sets the rules, who manages the investments, and how benefits are tailored**. The Florida Retirement System benefits from size and statewide consistency, while municipal plans reflect local decision-making, collective bargaining, and supplemental revenue sources like insurance premium taxes.

Contributions



■ Present Value of Benefits

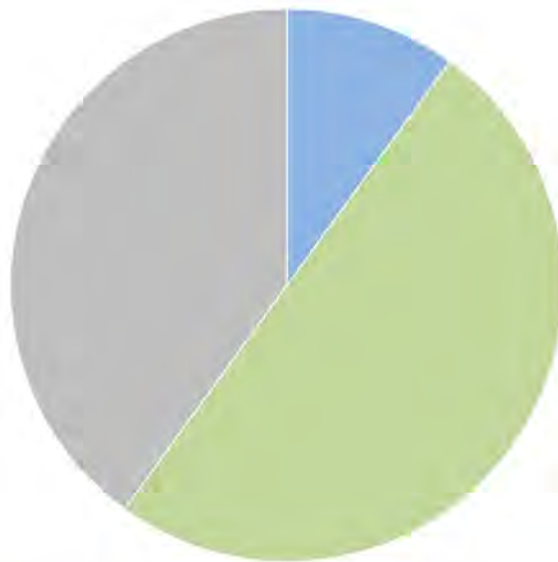
Contributions



■ Present Value of Benefits

■ Actuarial Value of Assets

Contributions

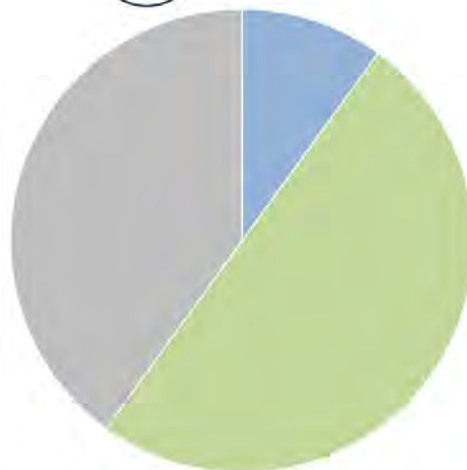


- Unfunded Actuarial Accrued Liability (UAAL)
- Actuarial Value of Assets (AVA)
- Present Value of Future Normal Costs (PVFNC)

Contributions

$$\textcircled{C} = B + E - I$$

- UAAL
- AVA
- PVFNC



- CONTRIBUTION =
- Normal Cost +
 - Expenses +
 - UAAL Payment

Chapter 175/185 Contributions



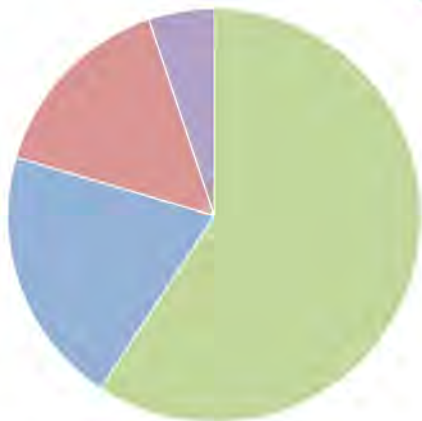
- Funded from tax on property insurance (Fire) and casualty insurance (Police)
- Allocated to City/Membership through Collective Bargaining or “Default” Method

Shaping the Future - Trustee by Trustee

Basic



Contributions



- Employer
- Employee
- 175/185 Monies
- Other

- Employer pays the remaining amount after State, Member, and Other funding sources
- Actuarial assumptions are set to determine:
 - Contributions that fund the benefits while they are being earned
 - Less volatile contributions

Shaping the Future - Trustee by Trustee

Basic



Investment Income



$$C + \textcircled{I} = B + E$$

Primary source of funding!
Approximately 60-70%!

Role of Your Investment Consultant

$$C + \textcircled{I} = B + E$$

- Quarterly performance-monitoring reports for the Fund
- Research and reviews asset managers to bring in for selection
- Develops Investment Policy Statement (IPS)

Your Other Investment Professionals



- Money Managers
- Securities Litigators

Asset Allocation

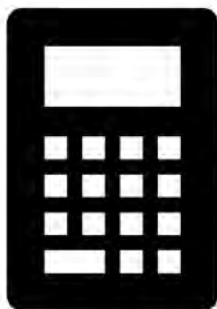
Asset Class	(1) Target Allocation	(2) Expected Arithmetic Return by Asset Class (Long-Term)	(3) = (1) x (2) Expected Portfolio Arithmetic Return (Long-Term)
Domestic Equity	28.00%	5.43%	1.52%
Fixed Income	24.00%	1.74%	0.42%
Real Estate	10.00%	3.13%	0.31%
Alternative Investments	13.00%	7.69%	1.00%
International Equities	<u>25.00%</u>	5.56%	<u>1.39%</u>
Total Real	100.00%		4.64%
Assumed Inflation			<u>2.50%</u>
Total Nominal			7.14%

Benefits

$$C + I = \textcircled{B} + E$$

- Typically accrued for each year of service worked
- Formula =
 - Benefit Accrual Rate X
 - Service X
 - Average Final Compensation

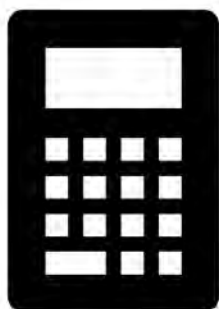
Benefit Formula



Example:

- 2.0% Benefit Accrual Rate
- 30 years of service
- Pension Benefit replaces 60% of average earnings

Benefit Formula



Example:

- 2.0% Benefit Accrual Rate
- 30 years of service
- \$50,000 3-Year Average Final Compensation
 - Year 1: \$55,000
 - Year 2: \$50,000
 - Year 3: \$45,000
- Pension Benefit = $60\% \times \$50,000 = \$30,000$

Minimum Benefits for Fire and Police

Average Final Compensation	Average of the five best of the last ten years
Normal Retirement	
Eligibility	55/10, 52/25
Benefit Amount	2.75% X AFC
Early Retirement	
Eligibility	55/10
Benefit Amount	Accrued benefit, reduced by 3% per year before Normal Retirement
Vesting	10 years of service

Minimum benefits for disability and pre-retirement death also!

Benefits

$$C + I = \textcircled{B} + E$$

- Can be negotiated through Collective Bargaining
- Benefits are changed through Ordinance or Statute
- Actuary provides Actuarial Impact Statement to assess the impact of benefit changes to the Pension Plan
- Board of Trustees can not amend benefits! Board's duty is to administer the plan under the current provisions!

Shaping the Future - Trustee by Trustee

Basic



Expenses

$$C + I = B + \textcircled{E}$$

- Actuary
 - Valuations, Disclosures, Special Studies, Impact Statements
 - Benefit Calculations, Refund Calculations, DROP statements, Share Statements
 - Attend Board Meetings
- Investment Consultant
 - Quarterly Monitoring, Performance Review, Manager Selection
 - Investment policy Statement
 - Attend Board Meetings

Shaping the Future - Trustee by Trustee

Basic



Expenses

$$C + I = B + \textcircled{E}$$

- Money Managers (usually paid as a percentage of assets managed)
- Attorney
 - Legal Opinions
 - Monitor Legislation
 - Manage Security Litigation Proceedings
 - Disability Cases
 - Attend Board Meetings

Expenses

$$C + I = B + \textcircled{E}$$

- Administration Staff or Third-Party Administrator
- Custodian
- Auditor
- Trustee Training
- Fiduciary Liability Insurance
- Doctors (for medical reports in Disability cases)
- Software



Defined Benefit vs. Defined Contribution Municipal Plans in Florida

Municipalities in Florida provide retirement benefits to their employees through two main types of plans: Defined Benefit (DB) plans and Defined Contribution (DC) plans. While both are designed to provide retirement security, they operate in very different ways. Understanding the distinction is critical for trustees, policymakers, and employees.

Defined Benefit (DB) Plans – Traditional Florida Municipal Pensions

How They Work

- A DB plan promises a guaranteed lifetime benefit at retirement, based on a formula.
- The formula usually considers years of service × benefit multiplier × final average salary.
- Benefits are paid monthly for life, regardless of investment performance.

Funding in Florida

- Governed by Florida Statutes Chapter 112 (general employees) and Chapters 175 & 185 (police officers and firefighters).
- Employer contributions are determined by actuarial valuations each year.
- Employee contributions are set by ordinance or bargaining agreements.
- Investment earnings typically fund the majority of the benefits.

Advantages

- Provides predictable, stable income for retirees.
- Protects against outliving one's savings (longevity risk).
- Assets are pooled and professionally managed by a local pension board.

Challenges

- Funding risk falls on the municipality (and ultimately taxpayers).
- If contributions or investment earnings fall short, unfunded liabilities develop.
- Less portable if employees change jobs frequently.

Defined Benefit vs Defined Contribution Pensions in Florida

FLORIDA PUBLIC PENSION TRUSTEES ASSOCIATION

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Defined Benefit vs. Defined Contribution

$$\boxed{C} + \boxed{I} = \boxed{B} + \boxed{E}$$

- While the fundamental equation of pension plan financing 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.

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Basic



Defined Contribution (DC) Plans – Florida’s Municipal Alternative

How They Work

- A DC plan does not promise a specific benefit amount at retirement.
- Instead, the employer and employee contribute a set percentage of salary into an individual retirement account.
- The employee chooses (or is given options for) how to invest the funds.
- Retirement income depends on contributions, investment returns, and how the employee manages withdrawals.

Examples in Florida

- Some cities (often smaller municipalities) use DC-style arrangements instead of DB plans.
- The Florida Retirement System offers the FRS Investment Plan (a DC plan) as an alternative to its traditional pension. Some local governments mirror this approach.

Advantages

- Predictable cost for employers (contributions are fixed percentages).
- Fully portable—employees keep their account if they leave the city.
- No long-term unfunded liability risk for municipalities.

Challenges

- No guaranteed lifetime income—employees bear investment and longevity risk.
- Retirement security depends on individual investment choices and market conditions.
- Members may outlive their assets if not carefully managed.

Florida-Specific Contrast

- DB municipal plans (especially for police and firefighters under Chapters 175 and 185) remain the most common, reflecting a tradition of providing strong, guaranteed benefits for high-risk public safety jobs.
- DC municipal plans are less common but are sometimes adopted by municipalities seeking to limit long-term liabilities and provide more portability, especially for general employees.
- Some Florida municipalities have even closed their DB plans to new hires, shifting them into DC-style arrangements to control costs.

Defined Benefit Plans



- In a defined benefit plan, the benefit is **guaranteed** and determined by a set formula.
- The employer (and sometimes employees) must contribute enough to fund these promised benefits over time, based on actuarial valuations.

Defined Benefit Plans



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

A Florida Example

- A firefighter in Miami under a DB plan may retire with 30 years of service $\times$ 3% multiplier $\times$ final average salary = a guaranteed lifetime pension equal to 90% of pay.
- A city clerk in a smaller municipality under a DC plan may retire with an individual account funded by 7% employer contributions + 5% employee contributions, invested over their career. Their benefit depends on how the account performed and how they draw it down in retirement.

Narrative Takeaway

In Florida, Defined Benefit plans prioritize security for employees, with municipalities carrying investment and funding risks.

Defined Contribution plans prioritize predictability for employers, shifting investment and longevity risks to employees. Both structures reflect the same fundamental principle—that retirement benefits must be funded through contributions and earnings—but they allocate risks and responsibilities very differently.

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
Most Common in Florida	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.

Defined Benefit Plans

B



Using the **Defined Benefit** example on the prior slide, let's review how this plan would calculate a benefit for a hypothetical officer:

- Our officer has worked for the department for 25 years.
- His final average salary is \$10k per month
- How much would he be owed when he retires?

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Basic



Defined Benefit Plans

B

The benefit is **guaranteed** based on the plan's benefit formula

$$\boxed{3\%} \times \boxed{\$10k} \times \boxed{25} = \boxed{\$7,500}$$

- This Plan would pay this officer \$7,500 per month over his lifetime based on the Plan's **Normal Form of Payment**
- The officer may be able to adjust this amount in order to provide a survivor benefit upon death
- The officer would be eligible to retire immediately as he has 25 years of service

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Basic



Defined Benefit Plans



Since the amount of benefits provided under a DB plan is guaranteed, the amount a member receives is not impacted by:

- The amount of contributions put into the Plan **C**
- The investment performance of the Plan **I**
- The Expenses of the Plan **E**

Therefore, an Actuarial Valuation is needed in order to determine the amount of **C** needed in order to balance the equation.

Defined Benefit Plans



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



- 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.

Defined Contribution Plans



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.

Defined Contribution Plans



Using the **Defined Contribution** example on the prior slide, let's review how this plan would calculate a benefit for a hypothetical employee:

- Our employee has worked for the City for 25 years.
- Her final average salary is \$10k per month
- How much would she be owed when he retires?

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Basic



Defined Contribution Plans



- This Plan **guarantees** the employee 12% per year of their salary into an account to be saved for retirement
- That account will be invested and impacted by the investment gains and losses it experiences in the market
- Since only the **C** is guaranteed, the **B** is unknown until the participant withdrawals the money
- Once they retire, they will have the account balance to spend in retirement.

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Basic





DR. Mary Kelly
Renowned Economist & Leadership Expert

Commander/Dr. Mary Kelly, US Navy (retired) spent 25 years of active duty in the Navy. She was a military professor at the Naval Academy and a civilian professor at the Air Force Academy. She learned lessons in leadership in the first and second gulf wars and during 911. She uses real-world military and industry examples that resonate with participants. From her days as a naval intelligence officer to her role as one of today's most influential economists, Commander/Dr. Mary C. Kelly has carved out an unforgettable career in leadership.

Former chief of police, professor, realtor and HR Director – Mary has spent over 25 years teaching and training more than 40,000 military and civilian personnel. Mary is now on a mission to spread her message of success with audiences worldwide, sharing with them the secrets to being a true leader in today's workplace.

A high-energy keynote speaker, Mary is focused on using research, laughter, and experience to show professionals how to excel. Mary's relatable, no-nonsense approach inspires audiences to embrace their roles, surpass their goals, and plan for the future.

Mary is the author of 15 books on business growth, leadership, and today's economy. She is a speaker, coach, and trainer who has worked with hundreds of organizations and companies across the globe.

Top 10 Economic Concepts Everyone Should Know

Economics helps us understand how people, businesses, and governments make decisions about resources.

This presentation explores the top 10 foundational economic concepts that explain everyday choices and broad economic patterns.



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Commander/Doctor Mary Kelly

CPAE, CSP, US Navy (ret)





1. Understanding Scarcity: The Foundation of Economics

Scarcity is the fundamental economic problem.

Human wants and needs are unlimited — from food and clothing to entertainment and education. But the resources to satisfy these wants, like land, labor, and capital, are limited. This mismatch means we must make choices: what to produce, how to produce, and for whom. Scarcity forces trade-offs and prioritization in every economic decision.

Without scarcity, economics wouldn't exist—because there would be no reason to make choices. Scarcity also introduces the idea of cost, which is key for understanding other economic concepts.

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Scarcity in Daily Life: Beyond Basic Needs

Scarcity affects not just essential goods but also choices about lifestyle, education, and leisure. For example, students may face scarcity of time and must choose how to prioritize homework, hobbies, and social activities.

Even abundant resources can feel scarce at certain times, which influences behavior. Recognizing these everyday scarcity situations deepens your understanding of why economics matters in real life.



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Scarcity and Environmental Resources

Scarcity is especially evident in environmental resources like water, clean air, and fossil fuels. These vital resources are limited and under pressure from increasing demand.

Sustainable management and innovation are critical to balancing scarcity and future needs.

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Scarcity and Innovation: Solving Resource Limits

Scarcity drives innovation. Limited resources push individuals and societies to create new methods, technologies, and alternatives to improve efficiency and meet needs.

Examples include renewable energy, water-saving technologies, and artificial intelligence transforming industries.

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2. Trade-Offs: The Choices We Make

Every choice involves a trade-off — giving up one thing to gain another. For example, if a student spends extra hours studying economics, they may trade off time spent with friends or on hobbies.

Recognizing trade-offs helps us understand that resources used for one purpose aren't available for another. This concept applies to individuals deciding how to spend time or money and societies deciding how to allocate resources among healthcare, education, and defense, for instance.

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Trade-offs in Government Budgets

Governments face trade-offs when allocating finite budgets among competing needs like education, defense, healthcare, and infrastructure.

Choosing to spend more on one area often means less money for another.

For instance, increasing funding for public schools may require cutting funds from road maintenance. Understanding trade-offs helps citizens grasp the complexities of public policy decisions.



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Trade-Offs in Resource Allocation

Governments and businesses must constantly decide how to allocate scarce resources effectively, balancing competing needs.

For example, should more funds go to building roads or improving schools?

Recognizing trade-offs helps in making decisions that maximize overall benefit.



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3. Opportunity Cost: The Value of the Next Best Alternative

Opportunity cost is the value of the next best alternative foregone when making a decision. It is more than just the money spent—it includes what you give up in terms of time, pleasure, or other benefits.

For example, if you decide to spend \$15 on a movie ticket, the opportunity cost might be the dinner you could have enjoyed instead.

For a government, the opportunity cost of funding a new highway might be less money available for schools or hospitals. Understanding opportunity cost helps make better, more informed decisions.



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Opportunity Cost and Career Choices

Every career choice carries opportunity costs. Choosing one profession means giving up the potential salary, lifestyle, and experiences of others.

For example, going to college full-time may cost the opportunity to earn a full-time salary immediately.

Considering opportunity costs helps individuals evaluate long-term benefits versus short-term sacrifices.



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Opportunity Cost in Time Management

Time is one of our scarcest resources. Opportunity cost applies when choosing how to spend time on activities with different benefits.

Prioritizing time wisely is key to balancing work, study, relaxation, and social life, maximizing satisfaction and productivity.



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4. Incentives: Motivating Economic Behavior

Incentives are factors that motivate individuals and businesses to act in certain ways. They can be positive—like bonuses or discounts—or negative, such as fines or taxes.

Understanding how incentives influence behavior is essential for predicting economic choices.

For example, higher prices may encourage producers to supply more goods, while taxes on sugary drinks may discourage consumption to promote health.



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Invest in
your people.

How Incentives Shape Business Decisions

Businesses use incentives to motivate employees and influence customer behavior. Incentives include salaries, bonuses, discounts, and loyalty programs.

For example, performance bonuses encourage employees to meet targets, while sales discounts attract consumers to purchase more.

Recognizing incentives explains why businesses act the way they do.

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Incentives in Public Policy

Governments design incentives to influence public behavior, such as tax credits for energy-efficient cars or penalties for pollution.

Effective incentives can address social problems and encourage positive economic actions.

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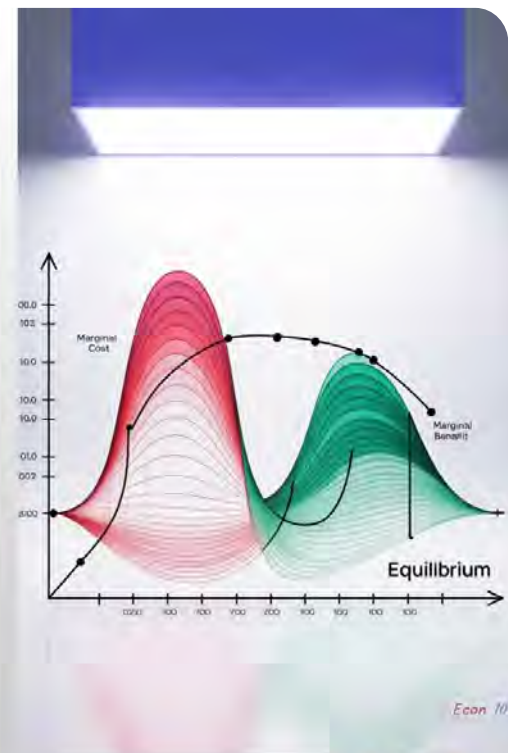


5. Marginal Analysis: Making Decisions at the Margin Means "Just One More"

Marginal analysis involves comparing the additional benefits and costs from consuming or producing one more unit of something.

For example, a business deciding whether to produce one more product will consider the marginal cost of that unit versus the marginal revenue it generates.

If the marginal benefit exceeds the marginal cost, it makes sense to go ahead.



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Marginal Analysis and Consumer Choices

Consumers often test their preferences by incremental decisions—for example, trying an extra cup of coffee to see if the benefit outweighs the cost before buying more regularly.

Marginal analysis guides these everyday economic decisions about consumption.



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Applying Marginal Analysis in Everyday Life

Marginal analysis is not just for businesses; individuals use it daily.

For example, deciding whether to study an extra hour involves weighing the marginal benefit (better grades) against the marginal cost (less relaxation).

This approach helps prioritize decisions to maximize personal benefit while minimizing unnecessary cost or effort.

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6. Gross Domestic Product (GDP): Measuring Economic Output

$$C + I + G + (X-M) = \text{GDP}$$

GDP represents the total monetary value of all goods and services produced within a country's borders in a specific time period. It is a primary measure of a nation's economic performance.

GDP helps compare economic health over time and between countries. A rising GDP suggests an expanding economy with more jobs and income, while a falling GDP may indicate recession. However, GDP doesn't measure everything, like income distribution or environmental impact.

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GDP and Economic Well-being: What It Really Measures

GDP measures the market value of production but does not capture everything that affects well-being, such as income inequality, environmental health, or unpaid work at home.

Economists complement GDP with other indicators to get a fuller picture of economic progress and societal health.

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GDP Components: What Makes Up Economic Output?

GDP is made up of:

C = Consumption: Spending by households

I = Investment: Business spending on capital goods

G = Government Spending: Public sector expenditures

(X-M) = Net Exports: Exports minus imports

These components provide insight into economic strengths and weaknesses.



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7. The Business Cycle: Economic Ups and Downs

The business cycle describes fluctuations in economic activity over time. It consists of expansions (periods of growth) and contractions (periods of decline or recessions).

During expansion, employment rises, incomes increase, and spending grows. During contraction, businesses slow production, layoffs increase, and consumers spend less. Understanding the business cycle helps policymakers and businesses prepare for economic changes.



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The Phases of the Business Cycle

The business cycle consists of four phases:

Expansion: Increasing economic activity and employment

Peak: Economy reaches highest point before turning down

Contraction: Decreasing output and rising unemployment

Trough: The lowest point before recovery begins

Understanding these phases aids in recognizing economic patterns and planning for fluctuations.

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Business Cycle Effects on Employment

During expansions, businesses hire more workers, reducing unemployment.

During contractions, layoffs increase and job opportunities shrink.

This cycle affects incomes and living standards, making employment a key concern for policymakers.



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8. Inflation: Rising Prices and Decreasing Purchasing Power

Inflation is a sustained increase in the general price level of goods and services in the economy. When inflation occurs, the purchasing power of money declines, meaning each dollar buys fewer goods and services.

Moderate inflation is common in growing economies, but high inflation can disrupt economic stability.

Inflation affects savings, wages, and interest rates and is closely watched by central banks to maintain healthy growth.

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How Inflation Impacts Consumers and Savers

Inflation means that over time, prices rise and the same amount of money buys less.

Consumers may cope by spending less or switching to cheaper alternatives.

Savers can lose value on money kept in low-interest accounts, while borrowers may benefit if inflation erodes the real cost of debt.



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Inflation and Interest Rates Relationship

Central banks often adjust interest rates to control inflation. Raising rates can slow spending and lower inflation, while lowering rates can stimulate the economy but risk higher inflation.

This delicate balancing act is central to monetary policy.



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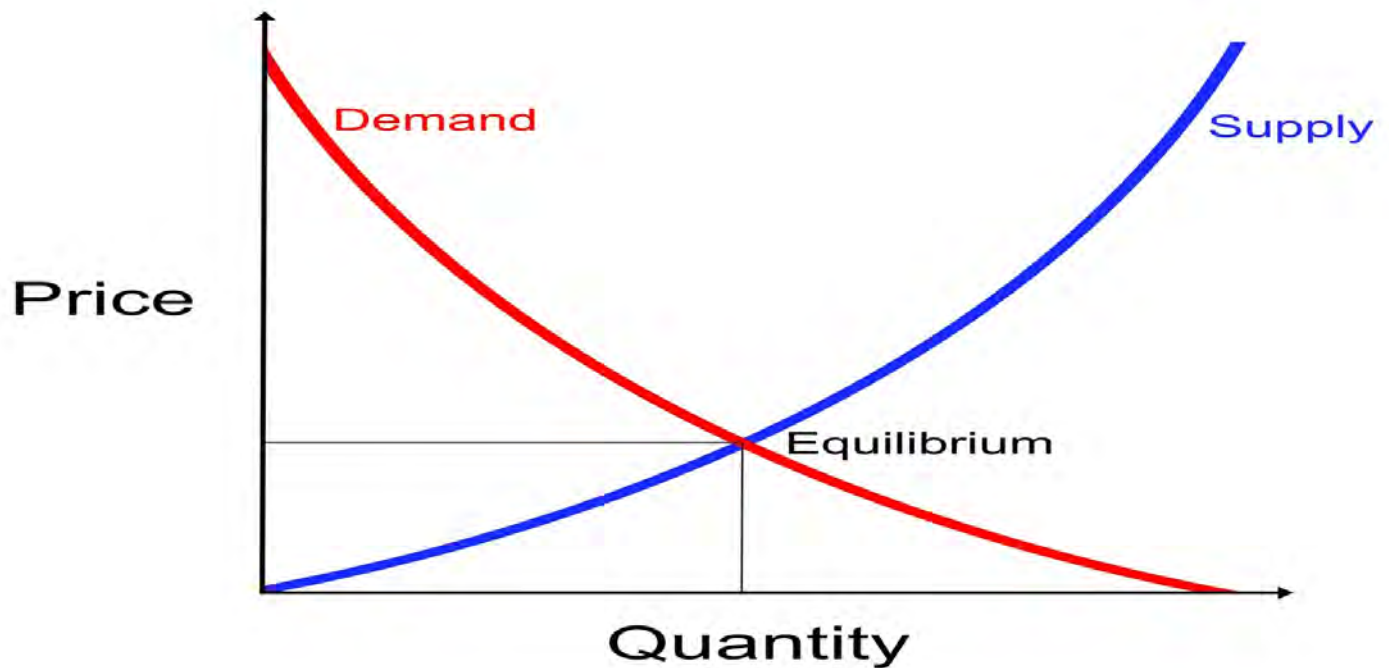
9. Laws of Supply and Demand: How Prices Are Determined

The Laws of Supply and Demand explains how the price and quantity of goods are determined in a market economy through the interaction of supply (producers' willingness to sell) and demand (consumers' willingness to buy).

When demand exceeds supply, prices tend to rise, encouraging producers to make more. When supply exceeds demand, prices fall. This dynamic balance helps markets allocate resources efficiently in many contexts.

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Supply and Demand: Real-World Example

At a farmer's market, fresh strawberries may be in high demand but limited supply. Prices rise to balance supply and demand.

If a strawberry crop is abundant, prices fall, encouraging consumers to buy more. Producers adjust future crops based on these signals, illustrating market efficiency.





Supply and Demand Curves Explained

The supply curve slopes upward, indicating producers supply more at higher prices. The demand curve slopes downward, showing consumers buy more at lower prices.

The intersection point is equilibrium price and quantity, where market clears.

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10. Economic Systems: Organizing Production and Distribution

Economic systems define how societies organize production, distribution, and consumption of goods and services. The main types include market economies, command economies, and mixed economies.

Market economies rely on supply and demand to allocate resources, while command economies are centrally planned by the government. Mixed economies combine elements of both. Each system has advantages and disadvantages regarding efficiency, equity, and innovation.



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Economic Systems Explained: Market Economy

In a market economy, prices and production are determined by supply and demand with minimal government interference.

This system encourages innovation, efficiency, and consumer choice but can also lead to inequality and market failures.



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Economic Systems Explained: Command Economy (Communism)

In a command economy, the government centrally plans and controls production and distribution.

The state decides what goods to produce, how much, and at what price. This system aims for equality and stability but often limits innovation and efficiency.

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Mixed Economies: The Best of Both Worlds?

Most countries today have mixed economies that combine market freedom with government regulation and social programs.

This balance supports economic growth while addressing social welfare, environmental protection, and market failures.

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Applying Economic Thinking

Use these concepts to analyze news, understand policies, and make better personal and collective decisions.

Economics isn't just theory—it's a toolkit for navigating the challenges of limited resources and maximizing opportunity in everyday life.

Keep exploring, questioning, and applying these ideas to become an informed citizen and successful decision-maker.



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Summary: The Economic Concepts Together

Mastering these 10 key concepts—scarcity, trade-offs, opportunity cost, incentives, marginal analysis, GDP, business cycle, inflation, supply and demand, and economic systems—form the foundation of economic understanding.

Together they explain individual choices, business behavior, government policies, and overall economic performance, shaping our world and daily lives.

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Improve productivity and morale!



► Mary C. Kelly

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Speakers Biographies



Sara Carlson Senior Consulting Actuary

Sara Carlson joined Foster & Foster in 2011 and is currently a consulting actuary to over 60 governmental retirement plans in Florida. Sara's experience includes topics such as actuarial valuations, plan redesign studies, accounting under GASB standards, statutory requirement disclosures, plan experience studies and assumption/method recommendations, actuarial audits, forecasting, and individual retirement benefit calculations.

Sara has a Bachelor of Science in Mathematics from the University of Florida and a Master of Science in Mathematics from the University of North Florida. Sara is an Associate of the Society of Actuaries, an Enrolled Actuary under ERISA, and a member of the American Academy of Actuaries.



Kevin Spanier, Senior Consultant, Conduent HR Services

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Florida Public Pension Trustees Association

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