



Pension Subcommittee of the

Finance Committee

Information Item III-A.2

April 14, 2016

Pension Plan Overview



WMATA

Pension 101 – *“What did my actuary say?”*

April 14, 2016

Agenda

- Actuarial Concepts and Terminology
- Plan Highlights
- Key Factors Impacting Contributions



Pension 101

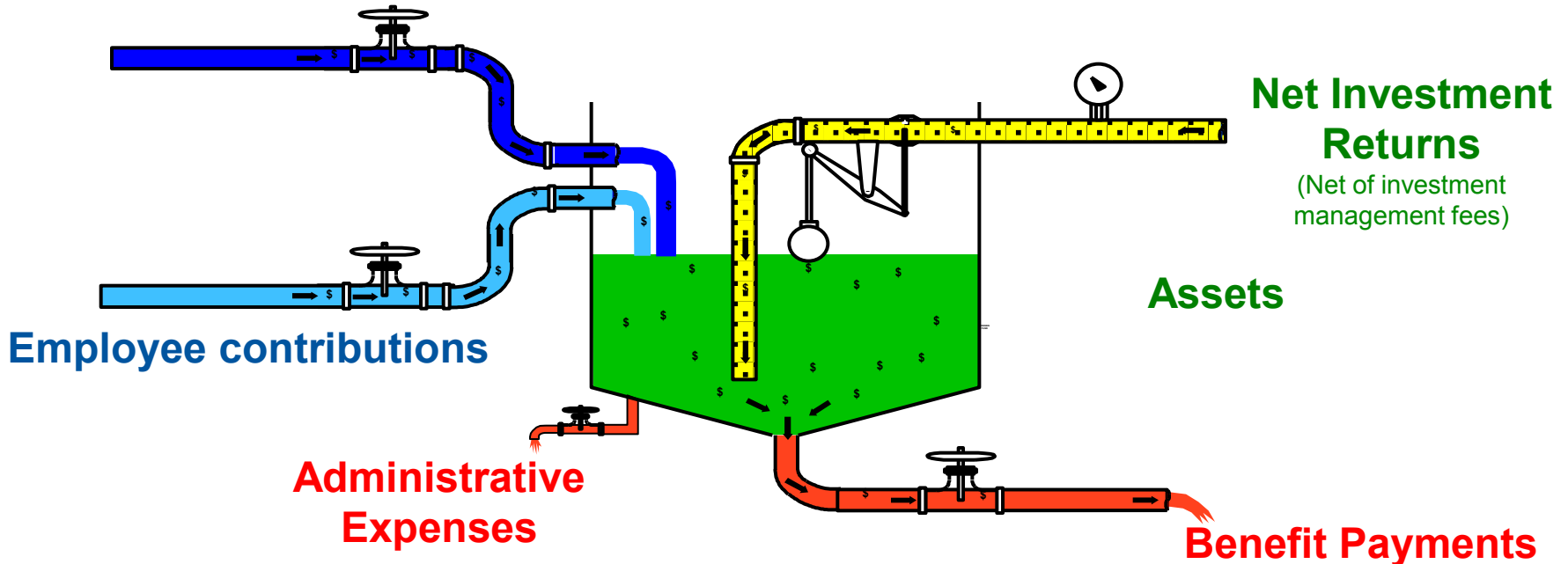


Actuarial Concepts and Terminology

The “Big Picture” - *Ultimate Plan Cost*

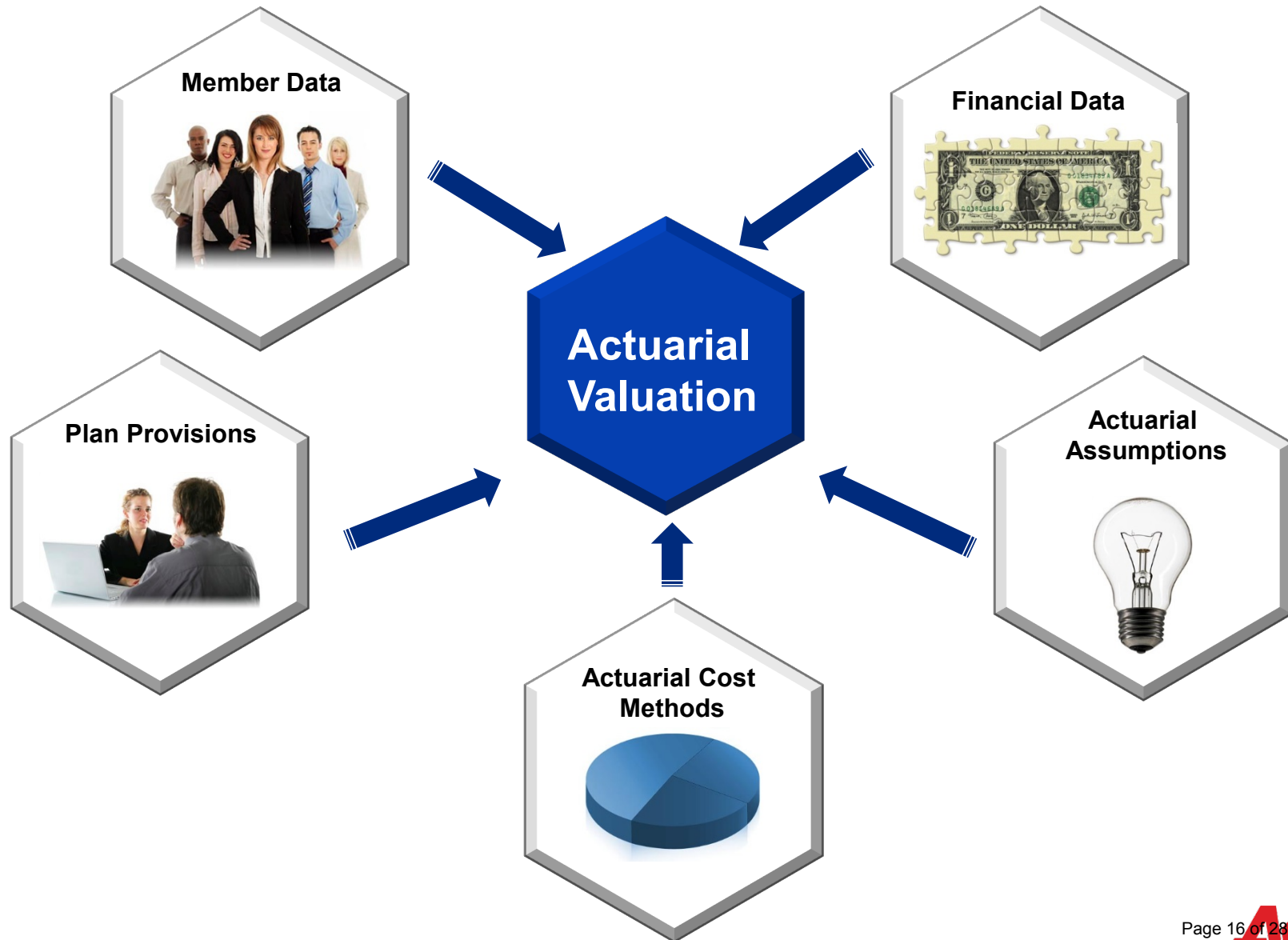
$$\text{Contributions} + \text{Investment Return} = \text{Benefits} + \text{Expenses}$$

Employer contributions



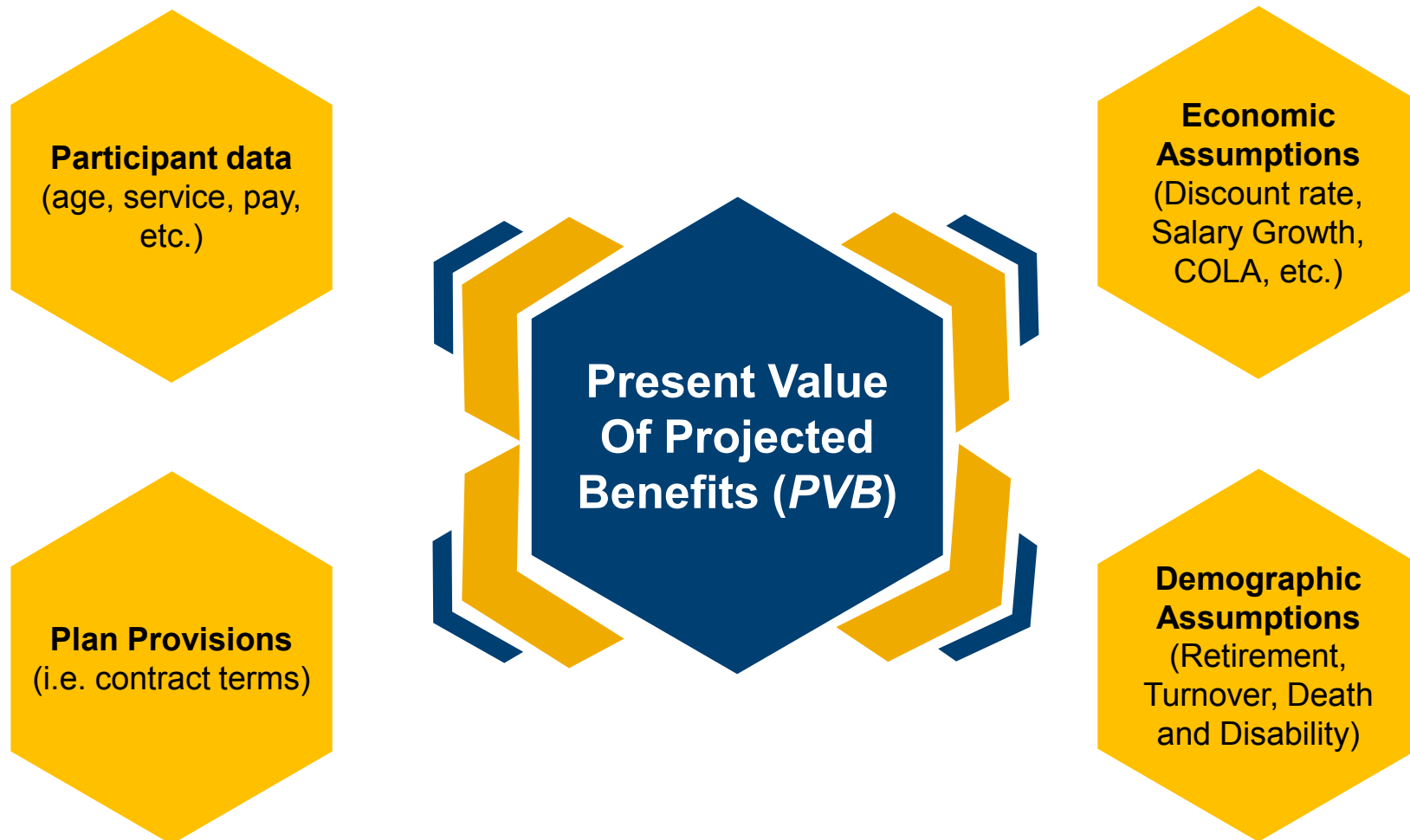
Assumptions and funding methods affect only the timing of costs.
“Nobody ever made a benefit payment from assumed interest!”

Actuarial Valuation Process



Present Value of Benefits (*PVB*)

The **Present Value of Projected Benefits (*PVB*)** is the total projected liability or “promise” for all participants, assuming all assumptions are met.

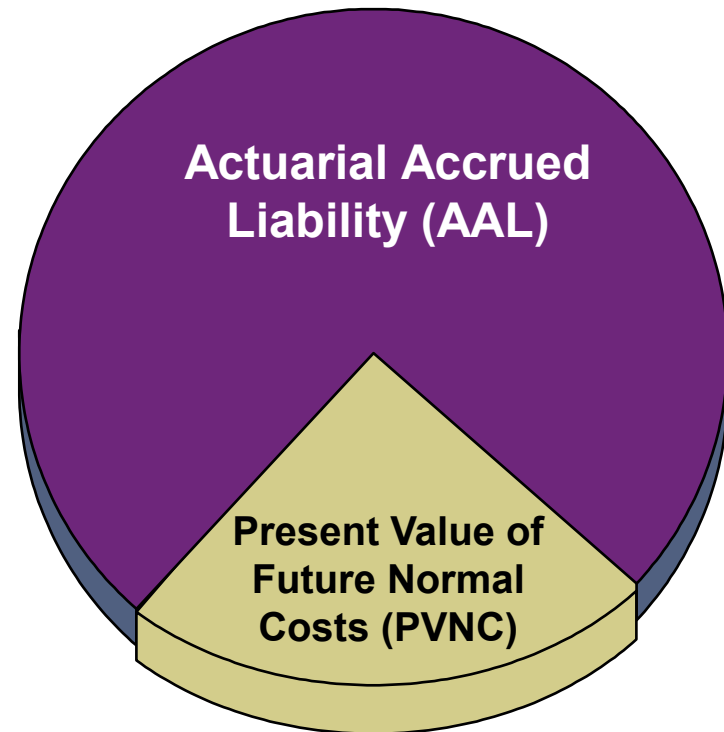


Actuarial Cost Methods

The **Actuarial Cost Method** is a mechanism to allocate the present value of projected benefits (PVB) to time periods (i.e. benefits related to past service vs. future service).

- The **Present Value of Future Normal Cost** (PVNC) is the portion of the present value of projected benefits (PVB) attributable to future service.
- The **Actuarial Accrued Liability (AAL)** is the portion of present value of projected benefits (PVB) attributable to past service.

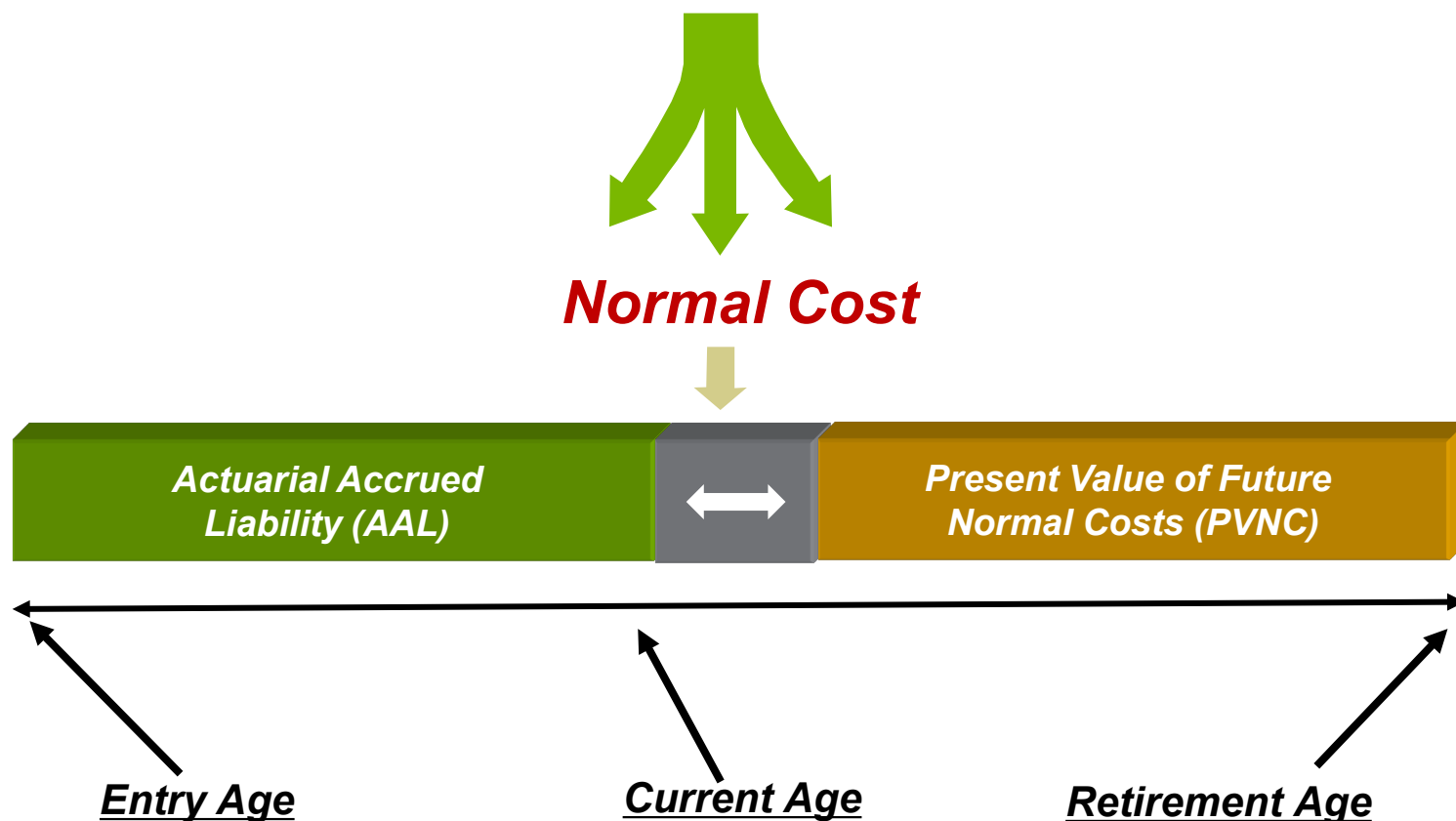
$$\text{PRESENT VALUE OF PROJECTED BENEFITS} = \text{AAL} + \text{PVNC}$$



Normal Cost

The **Normal Cost** is the upcoming year's portion of the Present Value of Future Normal Cost (PVNC) and represents the **cost attributable to benefits accruing during upcoming year**.

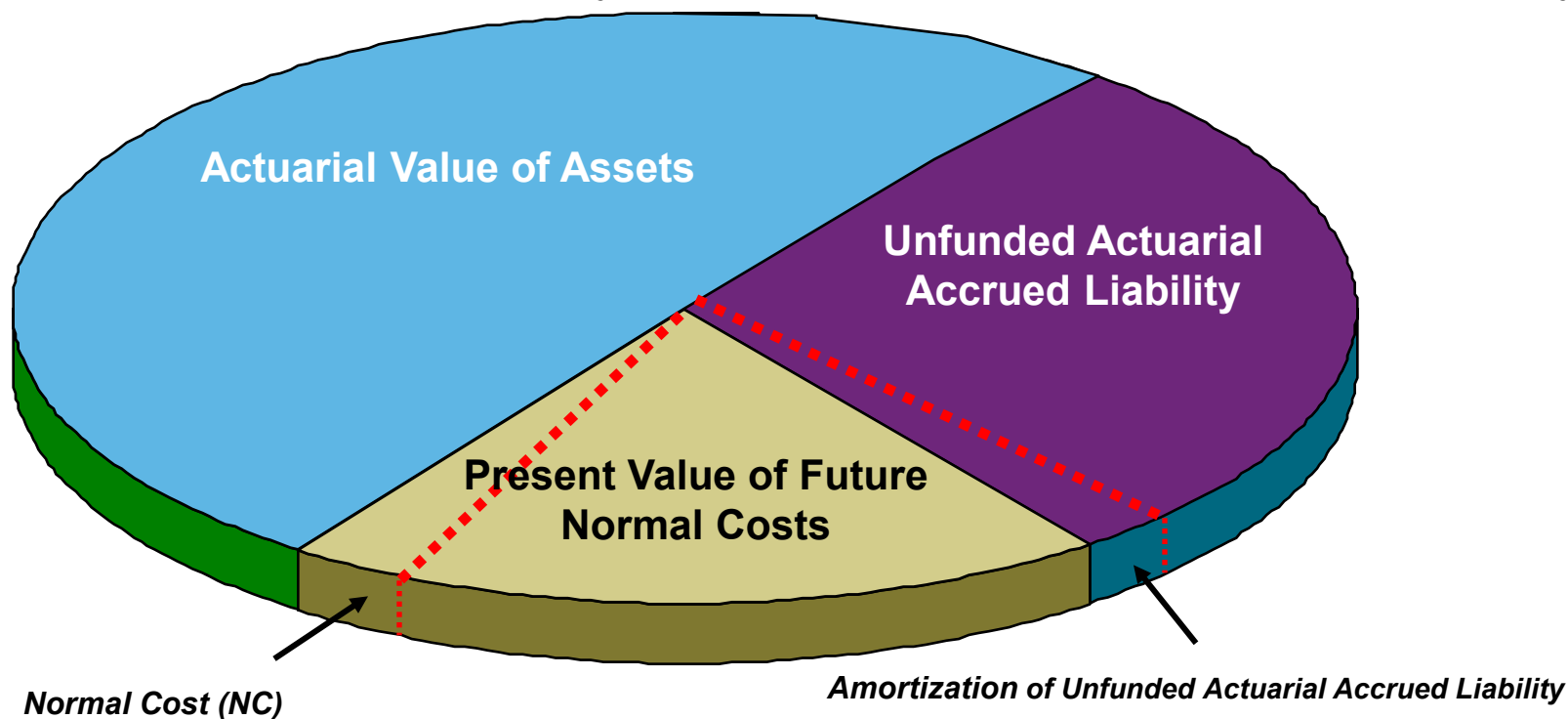
PRESENT VALUE OF FUTURE BENEFITS



Actuarially Determined Employer Contribution

Actuarially Determined Contribution (ADEC) = Normal Cost (NC) + Amortization (i.e., payment toward Unfunded Actuarial Accrued Liability (UAAL))

- Normal Cost (NC) = Cost attributable to benefits accruing during upcoming year
- Unfunded Actuarial Accrued Liability (UAAL) = Assets – Actuarial Accrued Liability (AAL)





Plan Highlights

Summary of Key Pension Plan Results (\$ in millions)

	Local 689	Non Rep/639*	Transit Police (FOP)	Local 922	Local 2*	Total
Valuation Date	1/1/2015	7/1/2015	1/1/2015	1/1/2015	7/1/2015	N/A
Total Headcount	14,852	1,821	737	683	445	18,538
Unfunded Actuarial Accrued Liability (UAAL)						
Actuarial Accrued Liability (AAL)	\$ 3,293	\$ 526	\$ 232	\$ 198	\$ 170	\$ 4,419
Actuarial Value of Assets (AVA)	\$ 2,506	\$ 376	\$ 177	\$ 181	\$ 145	\$ 3,385
Unfunded AAL	\$ 787	\$ 150	\$ 55	\$ 17	\$ 25	\$ 1,034
Funded Ratio	76.1%	71.4%	76.3%	91.4%	85.3%	76.6%
Actuarially Determined Employer Contribution (ADEC)						
Net Normal Cost (offset by Expected Employee Contributions)	\$ 83.1	\$ 2.1	\$ 8.7	\$ 4.0	\$ 0.7	\$ 98.6
Payment to Amortize Unfunded AAL	\$ 40.8	\$ 17.8	N/A	\$ 1.6	\$ 4.1	\$ 64.3
Total ADEC	\$ 123.9	\$ 19.9	\$ 8.7	\$ 5.6	\$ 4.8	\$ 162.9
As % of Payroll	16.6%	85.4%	23.8%	18.5%	53.3%	N/A

Summary of Key Pension Plan Results

	Local 689	Non Rep/639	Transit Police (FOP)	Local 922	Local 2	Weighted Average
Cost Method	Aggregate	Entry Age Normal	Aggregate	Entry Age Normal	Entry Age Normal	N/A
Asset Valuation Method	5 year smoothing	5 year smoothing	10 year smoothing	3 year smoothing	5 year smoothing	N/A
Valuation Interest Rate	7.85%	7.00%	7.50%	7.00%	7.50%	7.68%
Salary Increase	3.00% for Base Pay	Varies by years (0-20) of service: 6.3%-3.0%	Varies by age: 6.00% - 3.00%	4.50%	Varies by years (0-20) of service: 6.3%-3.0%	N/A
COLA	3.00%	2.50%	2.50%	4.00%	2.5%	2.94%
Mortality	RP-2000 Projected to 2015 based on Scale AA	RP-2000 Full Generation al based on Scale AA	RP-2000 Full Generation al based on Scale AA	RP-2000 Full Generation al based on Scale AA	RP-2000 Full Generation al based on Scale AA	N/A

*Used information from 7/1/2015 actuarial results presentation where available. Remaining information (e.g. assumptions, methods, and normal cost) based on 7/1/2014 Actuarial Report.



Key Factors Impacting Contributions

Key Risk Factors Impacting Contributions

Discount Rate (or Assumed Rate of Return)

- Average public plan discount rate is about 7.6% according to most recent NASRA survey
- WMATA's plans average discount rate is 7.7% or about 0.1% higher than average. However, Local 689 rate is 0.25% higher.
- If WMATA lowered Local 689 discount rate to the peer average, it would lower its funded % by about 2.5% and increase its annual cost by about \$15 million
- Based on Local 689's portfolio and our capital market assumptions, we expect the plan to earn 6.8% over the next 30 years.

Mortality Table

- The Society of Actuaries released a new base mortality table (RP-2014) and longevity improvement scale (MP-2014) in October 2014 for private plans.
 - An updated longevity improvement scale (MP-2015) was released in October 2015
- Public Plans use the older mortality tables but using mortality improvement scale. The SOA is currently undergoing a study of public pension mortality and will be releasing an updated table.
 - Local 689 is only plan reflecting limited future mortality improvement

Asset Investment

- Market volatility would impact funding contributions
 - Partially mitigated by use of smoothing period for investment (gains)/losses
- Consider duration of fixed income securities
 - Long duration bonds would mitigate volatility



Questions?