



**Pension Subcommittee of the**

**Finance Committee**

**Information Item III-A**

**October 13, 2016**

## **Review Plan Actuarial Reports and Performance**

Washington Metropolitan Area Transit Authority

## Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:  
201793

Resolution:  
☐ Yes ☒ No

### TITLE:

Review Plan Actuarial Reports and Performance

### PRESENTATION SUMMARY:

This presentation provides an overview of the actuarial reports for WMATA's five pension plans.

### PURPOSE:

To provide an overview of the actuarial reports for WMATA's five pension plans as well as review the plans' funding strategies and performance. The actuarial dates range from July 2015 to January 2016.

### DESCRIPTION:

The consultant will review actuarial concepts and terminology, plan highlights and key factors impacting contributions.

#### Key Highlights:

Consultant will review the actuarial reports for WMATA's five pension plans with the subcommittee.

#### Background and History:

Actuarial reports contain information on Plan assets and liabilities, as well as analysis that combines assets, liabilities, plan performance and projections. The report provides employer contribution, outstanding obligations and disclosures required under the Governmental Accounting Standards Board Statements 25 and 27. In addition to presenting annual actuarial valuation of the retirement plan, the report is used to prepare financial reports in accordance with applicable law and accounting requirements.

As part of WMATA's goal to reduce future cost growth in current and retiree health benefits costs, management recently began aligning Non-represented employee health care plans to the local jurisdictions. In addition, retiree healthcare benefits for future Non-represented employees will cease. Both changes will take effect January 1, 2017. Management also wants to consolidate WMATA's five pension plans' assets to eliminate redundancy in professional services, with significant savings to the Trusts.

**Discussion:**

To provide an overview of the actuarial reports for WMATA's five pension plans as well as review the plans' funding strategies and performance.

**FUNDING IMPACT:**

This is an information item.	

**TIMELINE:**

Previous Actions	April 2016 - Subcommittee Fiduciary Responsibilities and WMATA Pension Plan Overview July 2016 - Other Post Employment Benefits
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**RECOMMENDATION:**

To provide an overview of the actuarial reports for WMATA's five pension plans as well as review the plans' funding strategies and performance.



# **WMATA**

## **Pension Subcommittee Meeting**

October 13, 2016

**Prepared by Aon Hewitt**  
Consulting | Retirement & Investment



## Agenda

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- Actuarial Concepts and Terminology
- Plan Highlights
  - Commentary
  - Valuation Results
  - Normalized Results
  - Local 689 Funding Projection
- Questions



## Pension Review

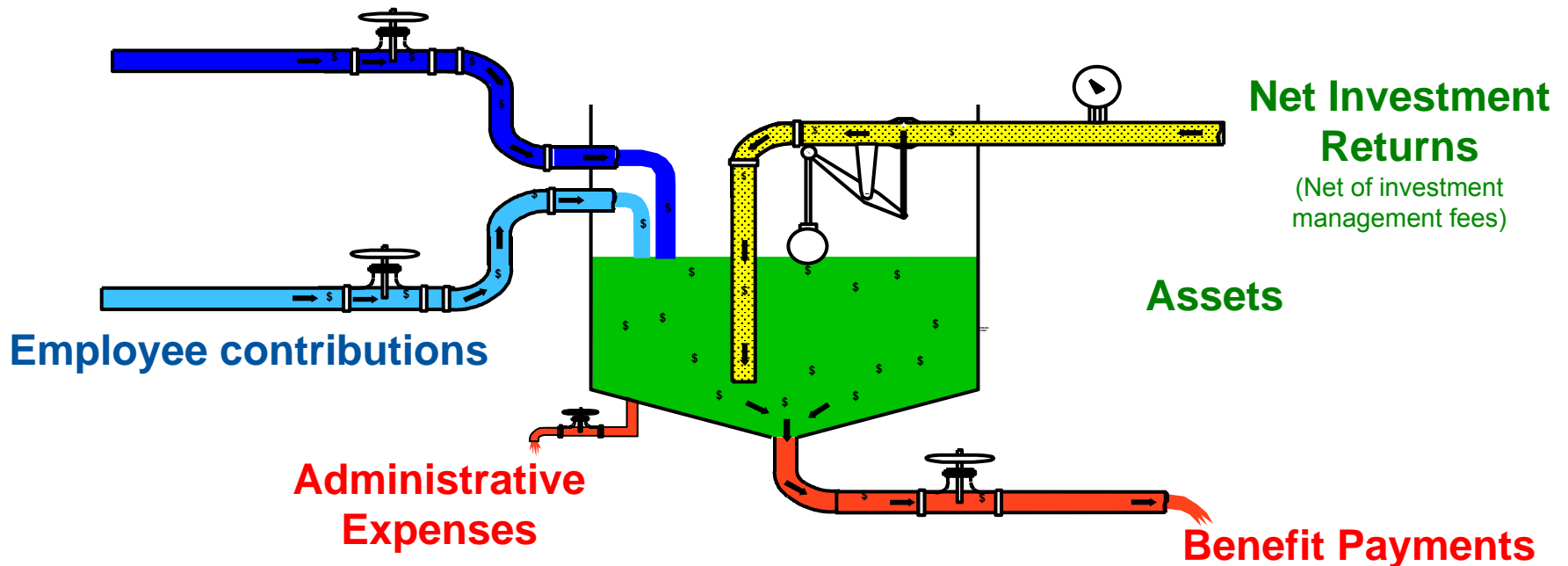


# Actuarial Concepts and Terminology

## The “Big Picture” - *Ultimate Plan Cost*

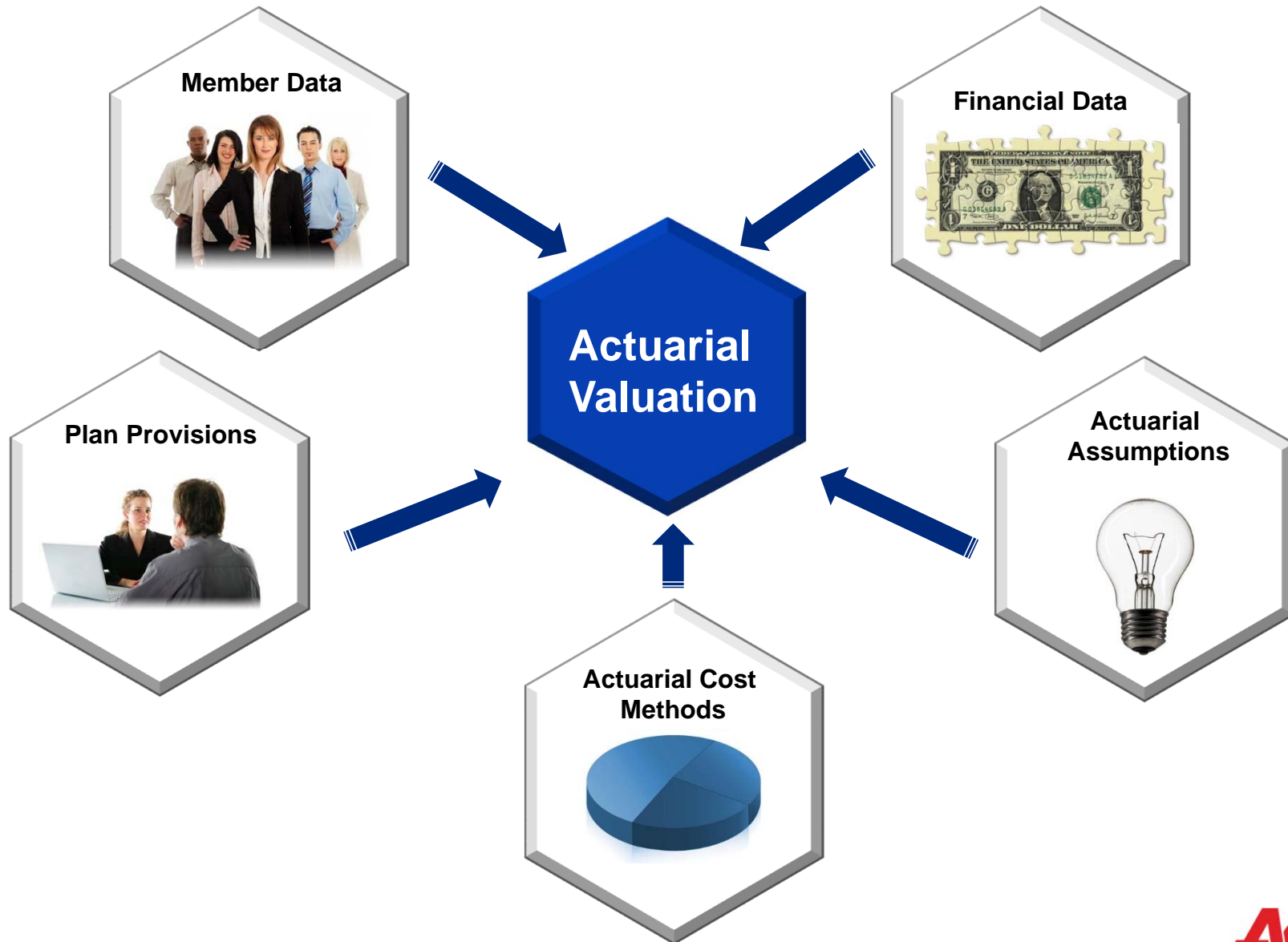
$$\text{Contributions} + \text{Investment Return} = \text{Benefits} + \text{Expenses}$$

### Employer contributions



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

# Actuarial Valuation Process







# Plan Highlights

## Summary of Key Pension Plan Results - Commentary

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### Plan Status and Demographics

- All plans continue to remain open except Non-represented Employees (“NRP”) and Office of Professional Employees International Union, AFL-CIO (“Local 2”)
  - Allow for new participants
  - Only NRP and Local 2 employees hired prior to 1/1/1999 participate in their respective plans
- Slight increase in total plan population
  - Increased from 18,538 to 18,919

### Financial Status

- Slight increase in funded status from previous valuation
  - Increased from 76.3% to 77.7%
  - Unfunded liability decreased from \$1,047 million to \$1,027 million (by \$20 million)
- Actuarially determined contribution decreased from \$164 million to \$158 million from prior valuation

### Assumptions

- Mortality Table
  - Transit Police valuation based on current SOA table
  - Local 689 is only plan reflecting limited future mortality improvement

## Summary of Key Pension Plan Results - Commentary

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### Investment Performance

#### Asset Allocation (Aggregate)

Category	Allocation
Domestic Equity	52%
International Equity	17%
Fixed Income	16%
Real Estate	7%
Cash	1%
Other	7%
Total	100%

#### Annualized Return (Aggregate)

Period	Rate
3-year	7.54%
5-year	7.72%

#### Valuation Interest Rate

Plan	Rate
Local 689	7.85%
Non Rep/639	7.00%
Transit Police (FOP)	7.50%
Local 922	7.00%
Local 2	7.50%
Weighted Average	7.68%

- No change in Valuation Interest Rate from prior valuation.
- Average public plan discount rate according to most recent NASRA survey is 7.6% per annum.

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

	Local 689		NRP/Local 639		Transit Police (FOP)	
Valuation Date	1/1/2016	1/1/2015	7/1/2015	7/1/2014	1/1/2016	1/1/2015
Total Headcount	15,211	14,852	1,821	1,831	741	737
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>						
Actuarial Accrued Liability (AAL)	\$ 3,457	\$ 3,293	\$ 526	\$ 534	\$ 243	\$ 232
Actuarial Value of Assets (AVA)	\$ 2,684	\$ 2,506	\$ 376	\$ 374	\$ 186	\$ 177
Unfunded AAL	\$ 773	\$ 787	\$ 150	\$ 160	\$ 57	\$ 55
Funded Ratio	77.6%	76.1%	71.4%	70.0%	76.5%	76.3%
<b>Actuarially Determined Employer Contribution (ADEC)</b>						
Net Normal Cost (offset by Expected Employee Contributions)	\$ 75.4	\$ 83.1	\$ 2.0	\$ 2.1	\$ 9.8	\$ 8.7
Payment to Amortize Unfunded AAL	\$ 41.9	\$ 40.8	\$ 17.9	\$ 18.3	N/A	N/A
Total ADEC	\$ 117.3	\$ 123.9	\$ 19.9	\$ 20.4	\$ 9.8	\$ 8.7
As % of Payroll	15.2%	16.6%	85.4%	86.2%	28.6%	23.8%

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

	Local 922		Local 2		Total	
Valuation Date	1/1/2016	1/1/2015	7/1/2015	7/1/2014	Current	Prior
Total Headcount	701	683	445	443	18,919	18,546
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>						
Actuarial Accrued Liability (AAL)	\$ 210	\$ 198	\$ 170	\$ 169	\$ 4,606	\$ 4,426
Actuarial Value of Assets (AVA)	\$ 188	\$ 181	\$ 145	\$ 141	\$ 3,579	\$ 3,379
Unfunded AAL	\$ 22	\$ 17	\$ 25	\$ 28	\$ 1,027	\$ 1,047
Funded Ratio	89.5%	91.4%	85.3%	83.4%	77.7%	76.3%
<b>Actuarially Determined Employer Contribution (ADEC)</b>						
Net Normal Cost (offset by Expected Employee Contributions)	\$ 3.7	\$ 4.0	\$ 0.6	\$ 0.7	\$ 91.5	\$ 98.6
Payment to Amortize Unfunded AAL	\$ 2.1	\$ 1.6	\$ 4.2	\$ 4.4	\$ 66.1	\$ 65.1
Total ADEC	\$ 5.8	\$ 5.6	\$ 4.8	\$ 5.1	\$ 157.6	\$ 163.7
As % of Payroll	18.7%	18.5%	53.3%	51.8%	18.1%	19.1%

## Summary of Key Pension Plan Results

	Local 689	NRP/Local 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	5 year smoothing (10 year for Pre 2015 gains/losses)	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: 7.00% - 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 Fully Generational based on Scale AA	RP-2014 Fully Generational based on Scale MP 2015 with Blue Collar Adjustment	RP-2000 Fully Generational based on Scale AA	RP-2000 Fully Generational based on Scale AA	N/A

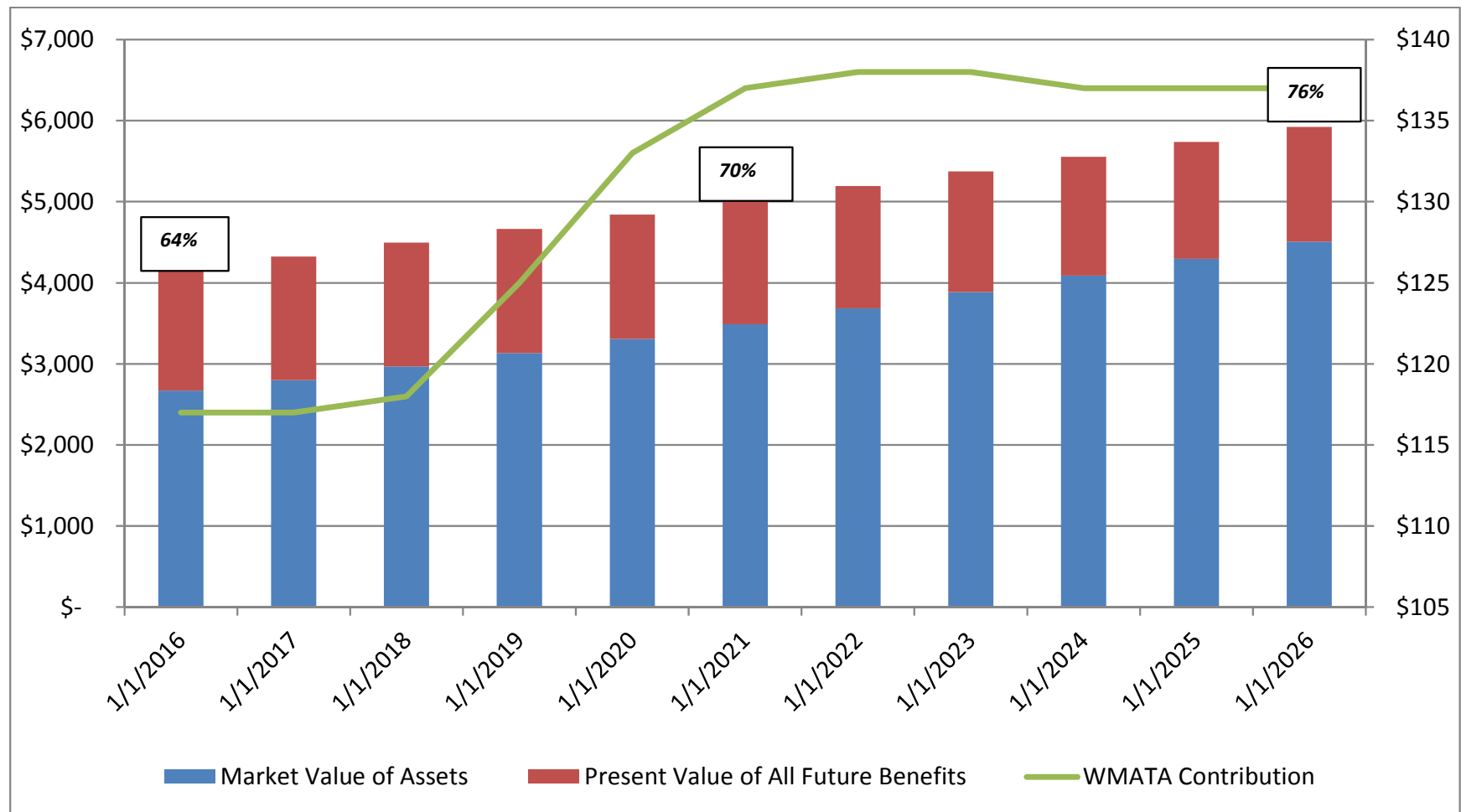
\*This is the actuarial valuation assumption. Actual COLA adjustment is based on plan/contractual provisions.

## Summary of Key Pension Plan Results – Funded Status Under Same Valuation Interest Rate (in Millions)

	Total (Individual Assumptions)	Total (Same Interest Rate)
Valuation Date	N/A	N/A
Total Headcount	18,919	18,919
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>		
Actuarial Accrued Liability (AAL)	\$ 4,606	\$ 4,980
Actuarial Value of Assets (AVA)	\$ 3,579	\$ 3,579
Unfunded AAL	\$ 1,027	\$ 1,401
Funded Ratio	77.7%	71.9%
<b>Actuarially Determined Employer Contribution (ADEC)</b>		
Total ADEC	\$ 157.6	\$ 200.0
<b>Assumptions (weighted average)</b>		
Valuation Interest Rate	<b>7.68%</b>	<b>7.00%</b>
COLA	2.94%	2.94%

- Results are estimated for illustrative purposes.
- Only reflected change in valuation interest rate. All other assumptions remain the same.
- Actual results will depend on specific plan calculations.

## Summary of Key Pension Plan Results – Local 689 Plan (in Millions)







# Questions?



# Appendix

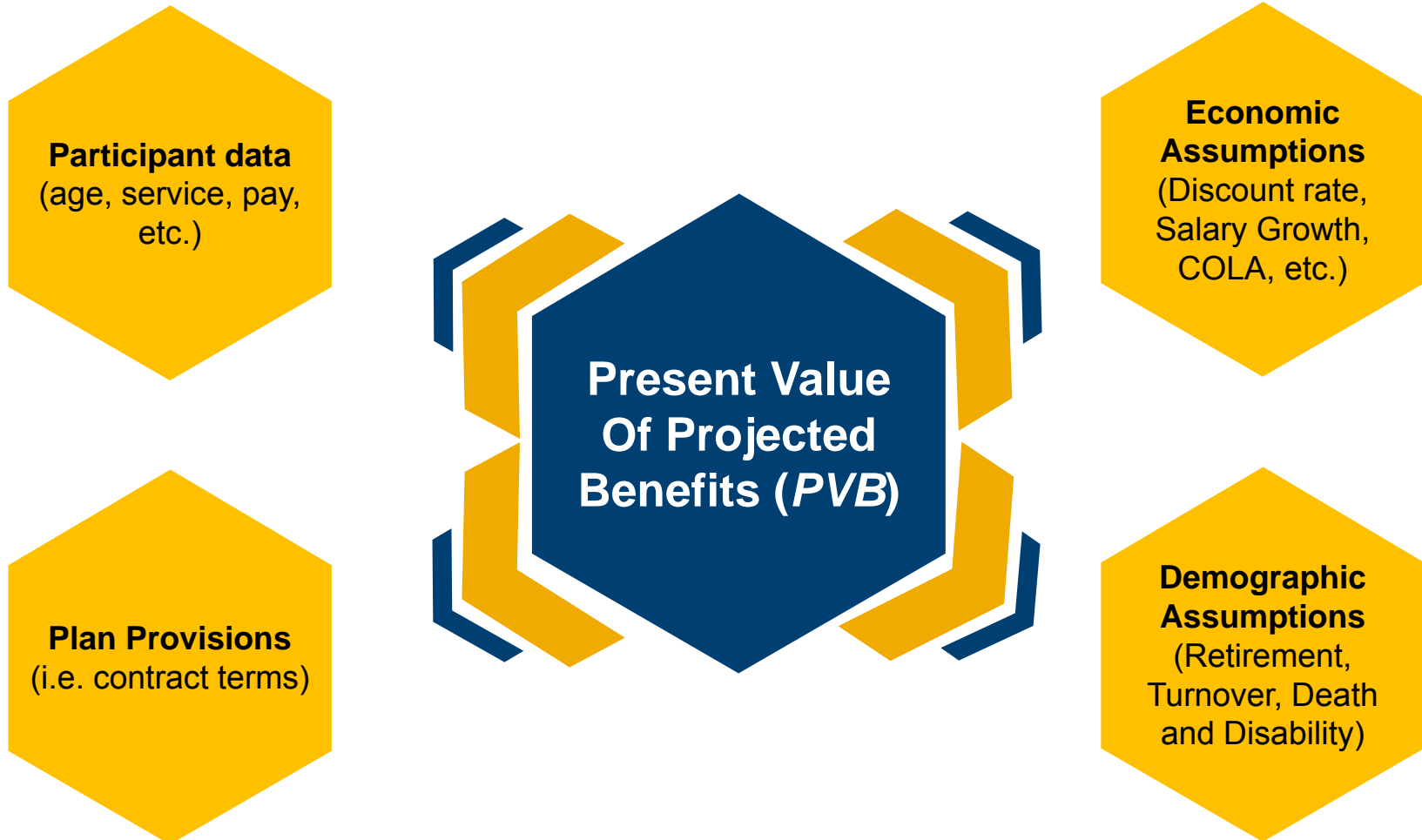
## Employee Classification

Common Name	Union Description	Job Type	Active Employees <sup>1</sup>
Local 689	Amalgamated Transit Union (AFL-CIO)	Operator, Maintenance and Clerical	8,778
Non Rep	Non-Represented	Managerial and Administrative Personnel	2,132
Local 639	International Brotherhood of Teamsters Law Enforcement Division	Special Police - Guards	126
Transit Police (FOP)	Fraternal Order of Police/Metro Transit Police Labor Committee, Inc.	Metro Transit Police Officers	359
Local 922	International Brotherhood of Teamsters	Operator, Maintenance and Clerical - Landover <b>Bus</b> Garage	423
Local 2	Office of Professional Employees International Union, AFL-CIO	Professional, Technical, Clerical and Administrative including Controllers and Information Technology personnel	1,094
<b>TOTAL ACTIVES</b>			<b>12,912</b>

<sup>1</sup> As of 10/4/2016

## 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.

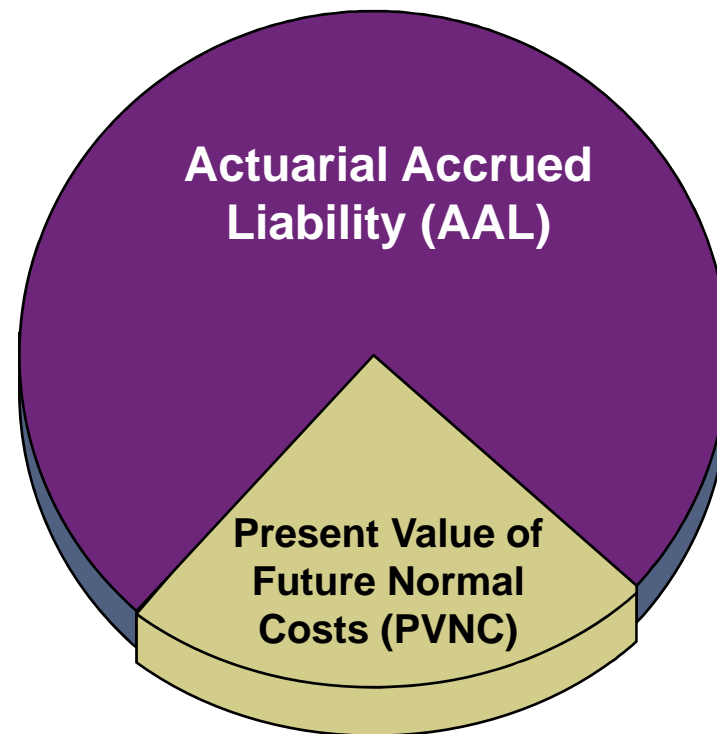


## Actuarial Cost Methods

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.

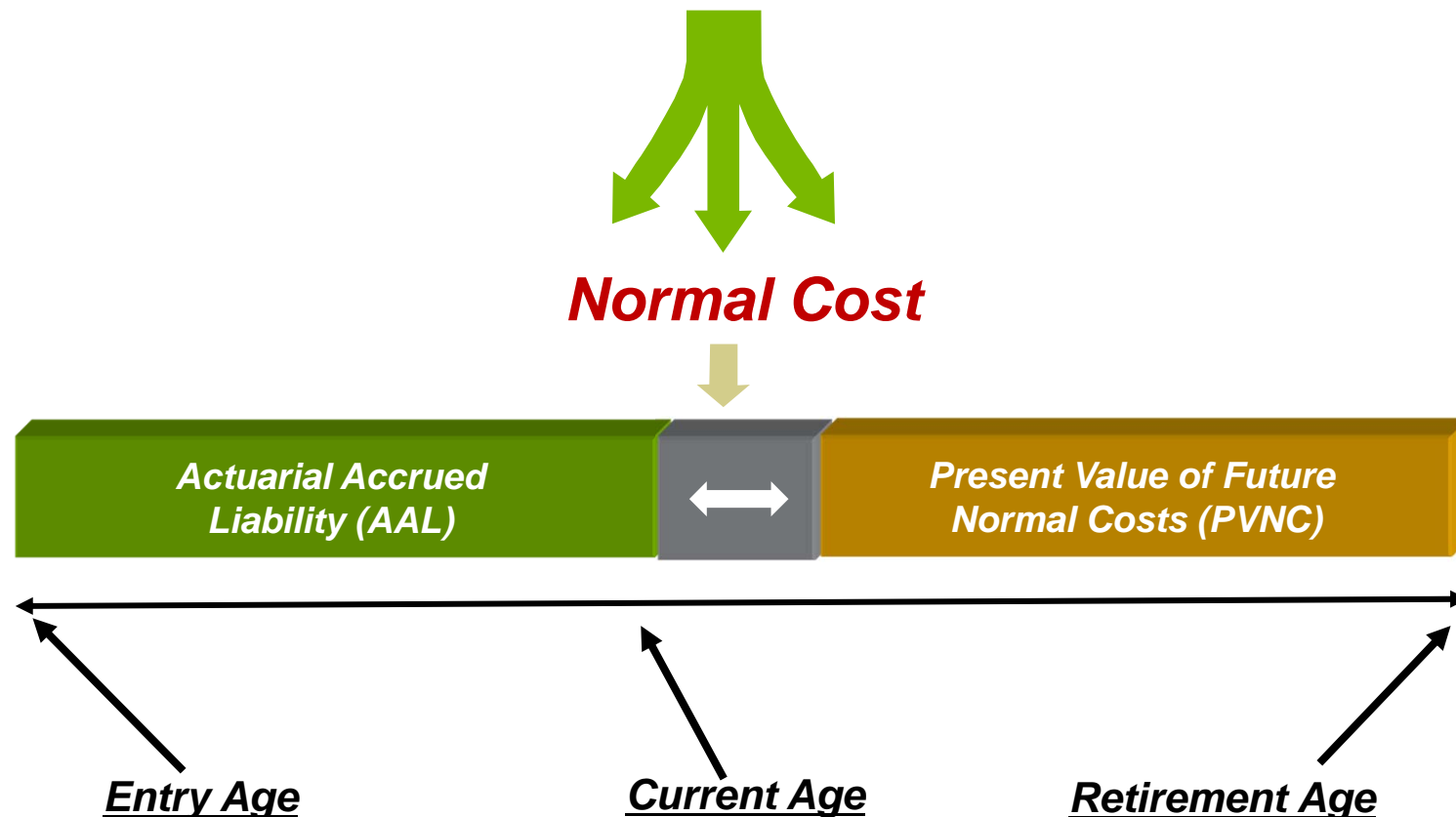
$$\text{PRESENT VALUE OF PROJECTED BENEFITS} = \text{AAL} + \text{PVNC}$$



## 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**.

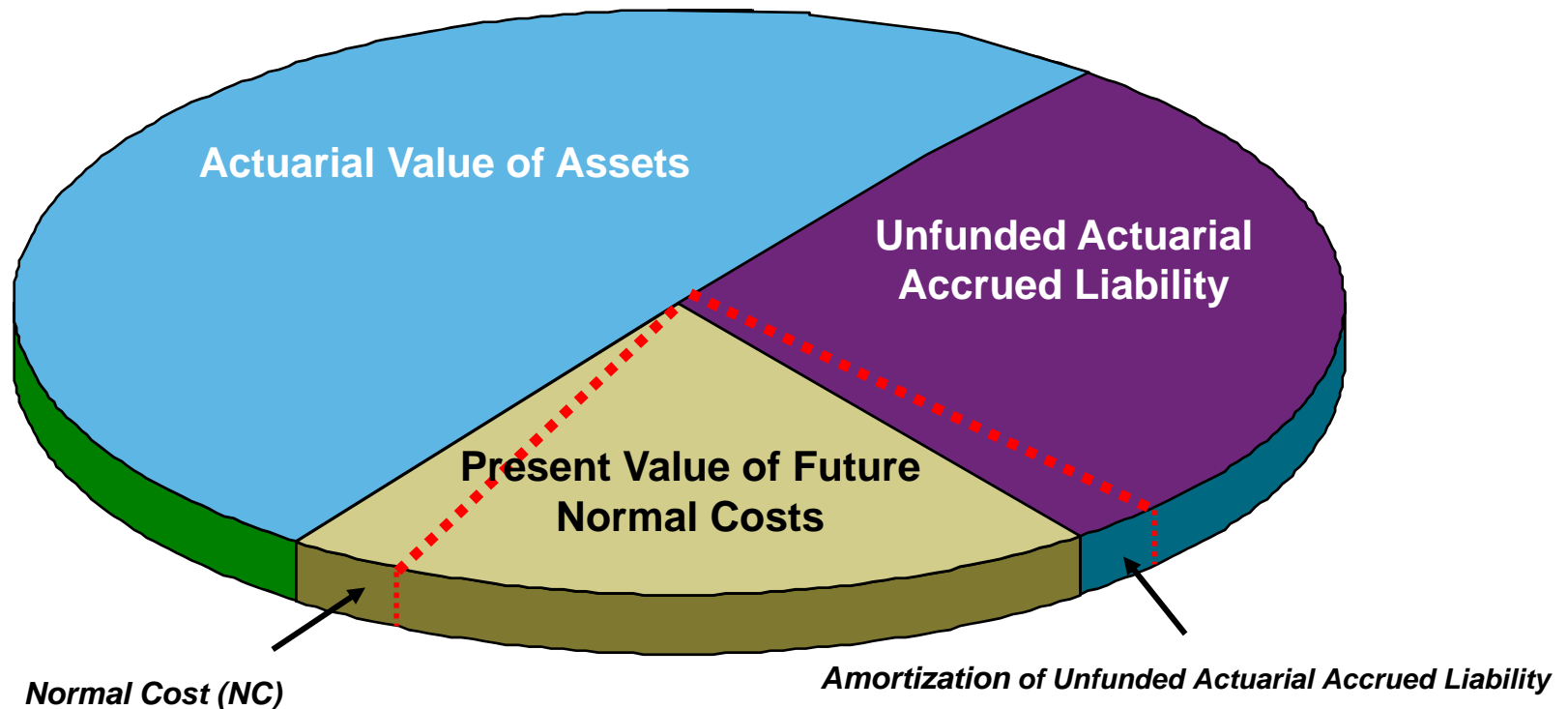
### PRESENT VALUE OF FUTURE BENEFITS



## 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)



# 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 2.0% and increase its annual cost by about \$10 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. Scale MP-2016 expected to be released soon.
- 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