



City of Chattanooga

Fire and Police Pension Fund Task Force Meeting

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Vijay Kapoor

Director of Workforce Consulting
kapoorv@pfm.com



Public Financial Management

Two Logan Square
18th & Arch Streets, Suite 1600
Philadelphia, PA 19103
(215) 567-6100
www.pfm.com

Adam Benson

Senior Managing Consultant
bensona@pfm.com



Active and Retiree Demographics

Active Employees

Years of Service

- As of September 14, 2013, approximately 43% of all CFPPF active members were not vested (less than 10 years of completed service). 88% of Fire and 79.9% of Police had less than 20 years of completed service as of that date
- Approximately 10% of CFPPF active members (81 out of 831) are have more than 25 years of completed service and are eligible to retiree

Years of Completed Service with City	Police		Fire		Police and Fire	
	FTE	% of Police Total	FTE	% of Fire Total	Total FTE	% of Total FTE
<10 YOS	192	44.5%	164	41.0%	356	42.8%
10 to <20 YOS	152	35.3%	188	47.0%	340	40.9%
20 to <25 YOS	51	11.8%	3	0.8%	54	6.5%
25 to <28 YOS	26	6.0%	31	7.8%	57	6.9%
28 to <30 YOS	4	0.9%	7	1.8%	11	1.3%
30+ YOS	6	1.4%	7	1.8%	13	1.6%
Totals	431	100.0%	400	100.0%	831	100.0%

Note: The estimates above are based on original hire date with the City of Chattanooga and not based on membership date in the CFPPF. Some individuals are known to have served in civilian positions prior to appointment as a public safety officer such that their actual membership in the CFPPF may be less than what is reflected.

Source: City of Chattanooga, Department of Human Resources

Active Employees

Headcount and Average Age by Job Title as of 9/14/2013

- For additional context, PFM has provided the headcount and average age by job title for both the Fire and Police Departments

Fire Department

Job Title	Number of Employees	Average Age
Firefighter	69	33
Firefighter Senior	143	37
Fire Lieutenant, Staff Firefighter Senior	82	41
Staff Lieutenant	8	44
Fire Captain	77	45
Staff Captain	5	45
Deputy Fire Marshal, Fire Battalion Chief, Fire Marshall	10	46
Asst. Fire Chief, Deputy Fire Chief, Exec. Deputy Fire Chief, Fire Chief	6	48
Total	400	39

Police Department

Job Title	Number of Employees	Average Age
Police Cadet	20	28
Police Officer 1	121	35
Police Officer 2	28	33
Police Officer 3	56	38
Master Police Officer	96	44
Police Sergeant	80	44
Police Lieutenant	18	47
Police Captain	7	48
Assistant Police Chief, Deputy Police Chief, Police Chief	5	56
Total	431	40

Source: City of Chattanooga, Department of Human Resources

Retirees

	Count	Average Annual Benefit
Pre-7/1999 Retirees		
Retirees	155	\$27,737
Disabilities	41	\$20,859
Sub-Total	196	\$26,298
Post-7/1999 Retirees		
Retirees	357	\$41,768
Disabilities	16	\$26,111
Sub-Total	373	\$41,096
Total	569	\$35,999

	Count	Average Annual Benefit
Beneficiaries		
Surviving Spouse	96	\$8,842
Pre-1992	87	\$7,753
Post-1992	9	\$19,367
Joint & Survivor	68	\$23,960
Total	164	\$15,110

Source: CFPPF

- As of 1/1/2013, there were a total of 733 plan members receiving a benefit (regular retirees, disability retirements, and beneficiaries)
- Approximately 66% of retirees (regular and disabled) retired after the July 1999 benefit enhancements (373 of 569), with an average annual benefit of \$41,096
- Only 34.4% of retirees (regular and disabled) left service prior to 7/1999 (196 of 569), with an average annual benefit of \$26,298



Deferred Retirement Option Program

What is a DROP?

- A Deferred Retirement Option Program (DROP) is a type of retirement benefit that allows a member of a retirement system to continue to work for a specified period of time beyond their normal retirement eligibility date
- At the end of the specified time period, the member is eligible to draw a service retirement benefit in addition to a lump sum payment
 - The service retirement benefits are typically based on the accrued benefit and Final Average Salary at the beginning of the DROP period (DROP start date) – resulting in a lower annuity than what would have been paid had the member continued to work and accrue benefits
 - The lump sum payments are normally equal to the accumulated value of the annuity that would have been paid had the member actually retired at the beginning of the DROP period. Many programs credit individual DROP accounts with some level of guaranteed interest
- There are several different types of DROPs, each of which has a unique set of provisions. In Chattanooga, Fire and Police are eligible for a **retroactive DROP** (also referred to as a “back DROP”). Unlike a forward DROP, a retroactive DROP does not require an irrevocable commitment from the member to retire at a specific date. This provides additional flexibility to the member should their circumstances change

What is available to CFPPF members?

- Chattanooga's DROP was amended in 2009 to reduce the guaranteed interest credit (eliminated for post-1/1/2009 hires) and to adjust the basis for calculating Final Average Salary. Pre-2009 hires were given the option of keeping the original DROP plan in exchange for an additional 1.0% employee contribution (the majority of members elected to keep the original DROP)
- To be eligible for the DROP, CFPPF members must have at least 25 years of completed service and no more than 30 years
- From 7/1/1999 (DROP inception) through 12/31/2008 (pre-2009 plan amendments) 261 CFPPF members retired with a DROP payment under the original plan (out of a total of 316 DROPS from 7/1/1999 through 12/31/2012)

	Employee Contribution	Final Average Salary (FAS)	Maximum Time Period	Interest Credit
<i>Original DROP</i>				
All eligible members	8.0%	FAS at time of separation	36 months	7.0%
<i>Post-2009 DROP Plan Amendments</i>				
Pre-2009 Hires electing higher contribution	9.0%	FAS at time of separation	36 months	7.0%
Pre-2009 hires electing current contribution	8.0%	FAS at beginning of DROP period	36 months	Actuarial Discount Rate Less 3% (4.75% as of today)
Post-2009 hires (no option)	8.0%	FAS at beginning of DROP period	36 months	0.0%

Historical CFPPF DROPs

- The DROP program was instituted in the 1999 plan amendments and first appeared in the actuarial valuation reports beginning with the 1/1/2002 valuation
- As shown during previous CFPPF Task Force meetings, since inception of the DROP, there have been 316 DROP payments, totaling \$31.4 million
- The most recent single-year average DROP payment per the 1/1/2013 valuation report was **\$107,591**. Since inception the average DROP payment has been slightly less, averaging **\$99,377**

Actuarial Valuation Date	DROP Payments	# DROP Payments	Average DROP Payment
1/1/2013	\$2,259,412	21	\$107,591
1/1/2012	\$749,444	9	\$83,272
1/1/2011	\$1,560,753	14	\$111,482
1/1/2010	\$1,481,234	11	\$134,658
1/1/2009	\$2,051,654	15	\$136,777
1/1/2008	\$1,450,209	10	\$145,021
1/1/2007	\$1,205,171	15	\$80,345
1/1/2006	\$2,672,855	28	\$95,459
1/1/2005	\$1,630,214	20	\$81,511
1/1/2004	\$2,459,670	21	\$117,127
1/1/2003	\$3,492,323	36	\$97,009
1/1/2002*	\$10,390,057	116	\$89,569
Total	\$31,402,996	316	\$99,377

* Includes more than one year (since DROP inception 7/99)

Source: City of Chattanooga Fire and Police Pension Fund

Non-Actuarial Comparisons

- To get a sense of the difference between the pre-2009 hire 9% employee contribution DROP with the post-2009 new hire DROP, PFM has estimated the value of the pension benefit for a hypothetical individual both with and without DROP participation, under the following set of assumptions:
 - 3.25% annual salary growth, with a \$56,824 annual salary in their 25th year of completed service
 - Note: 9/13/2013 payroll run had an average salary of \$57,697 for employees with 25 years of completed service
 - 28 years of completed service at separation
 - 3.0% post-retirement COLA received annually
 - For additional context, PFM has presented the comparisons assuming an individual received post-retirement annuity payments for 15, 25, and 35-years respectively. For each of the 6 scenarios, all other underlying assumptions were used (salary, years of service, COLAs, etc.)
- For each of the three scenarios, PFM calculated the net gain that an individual would have received had they participated in the DROP (actual benefits). To calculate these estimates, PFM summed the total lifetime annuity that a non-DROP participant would receive over 15, 25, or 35-years respectively (essentially their lifetime of pension payments), and subtracted it from the total lifetime annuity plus the lump sum payment that would be received had the individual entered the DROP over this same time (15, 25, or 35 years respectively)
- As an additional reference point, PFM calculated the Present Value (PV) of the annuity and the annuity plus the lump sum for DROP participants for each scenario. The PV of the annuity reflects the current value of the future sum of all money to be paid to the individual assuming a specific rate of return. For purposes of these PV calculations, PFM has assumed a 7.75% annual interest rate

Summary Table

- For the hypothetical retiree in this example, the DROP in place for pre-2009 hires who selected the 9% contribution provides a benefit with a present value greater than the DROP for post-2009 hires. The longer the employee lives, the greater the difference

	Sum of Total Annuity Payments plus Lump Sum Payment if in DROP			Present Value of Total Annuity Payments plus Lump Sum Payment if in DROP		
	Non-DROP	DROP	Difference (DROP - Non-DROP)	Non-DROP	DROP	Difference (DROP - Non-DROP)
Pre-2009 - 15 Years of Post-Retirement Benefits (9%)	\$817,116	\$931,627	\$114,511	\$489,818	\$621,258	\$131,440
Post-2009 - 15 Years of Post-Retirement Benefits	\$817,116	\$874,926	\$57,809	\$489,818	\$575,780	\$85,961
Pre-2009 - 25 Years of Post-Retirement Benefits (9%)	\$1,601,785	\$1,675,709	\$73,924	\$673,735	\$795,662	\$121,927
Post-2009 - 25 Years of Post-Retirement Benefits	\$1,601,785	\$1,592,102	(\$9,683)	\$673,735	\$743,877	\$70,142
Pre-2009 - 35 Years of Post-Retirement Benefits (9%)	\$2,656,314	\$2,675,694	\$19,380	\$790,906	\$906,772	\$115,866
Post-2009 - 35 Years of Post-Retirement Benefits	\$2,656,314	\$2,555,927	(\$100,387)	\$790,906	\$850,969	\$60,064

Note: The above analysis looks at a snapshot of the value of the DROP vs. Non-DROP benefit to a hypothetical employee retiring today. To look at the impact from a Fund perspective, one would also need to include the impact of the additional 1% contribution made by the pre-2009 hire prior to reaching 25 years of service which this analysis does not do. Employees retiring with a DROP pre-2009 did not need to make an additional contribution compared to those who did not retire with a DROP.

Non-Actuarial Comparisons

15-Years of Post-Retirement Annuity Payments – Pre-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 15 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary	\$60,598
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$41,661
Avg EE Contribution	9.00%	\$5,454
Interest Rate	7.00%	
Total Est. DROP		\$156,775

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$41,661	\$156,775	\$198,436
Year 2	\$45,252	\$0	\$45,252	\$42,911	\$0	\$42,911
Year 3	\$46,609	\$0	\$46,609	\$44,198	\$0	\$44,198
Year 4	\$48,007	\$0	\$48,007	\$45,524	\$0	\$45,524
Year 5	\$49,448	\$0	\$49,448	\$46,890	\$0	\$46,890
Year 6	\$50,931	\$0	\$50,931	\$48,297	\$0	\$48,297
Year 7	\$52,459	\$0	\$52,459	\$49,746	\$0	\$49,746
Year 8	\$54,033	\$0	\$54,033	\$51,238	\$0	\$51,238
Year 9	\$55,654	\$0	\$55,654	\$52,775	\$0	\$52,775
Year 10	\$57,323	\$0	\$57,323	\$54,358	\$0	\$54,358
Year 11	\$59,043	\$0	\$59,043	\$55,989	\$0	\$55,989
Year 12	\$60,814	\$0	\$60,814	\$57,669	\$0	\$57,669
Year 13	\$62,639	\$0	\$62,639	\$59,399	\$0	\$59,399
Year 14	\$64,518	\$0	\$64,518	\$61,181	\$0	\$61,181
Year 15	\$66,453	\$0	\$66,453	\$63,016	\$0	\$63,016
Year 16						
Year 17						
Year 18						
Year 19						
Year 20						
Year 21						
Year 22						
Year 23						
Year 24						
Year 25						
Year 26						
Year 27						
Year 28						
Year 29						
Year 30						
Year 31						
Year 32						
Year 33						
Year 34						
Year 35						
Total	\$817,116	\$0	\$817,116	\$774,852	\$156,775	\$931,627

Summary

Non-DROP Participant 15 Year Total Benefit	\$817,116
DROP Participant 15 Year Total Benefit	\$931,627
Difference	\$114,511

Summary - Present Value Basis*

PV of Non-DROP Participant 15 Year Total Benefit	\$489,818
PV DROP Participant 15 Year Total Benefit	\$621,258
Difference	\$131,440

* Assumes 7.75% annual interest rate

Non-Actuarial Comparisons

15-Years of Post-Retirement Annuity Payments – Post-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 15 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary - Non-DROP	\$60,598
Final Average Salary - DROP	\$55,054
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$37,850
Avg EE Contrib	8.00%	\$4,848
Interest Rate	0.00%	
Total Est. DROP		\$128,092

Note: Post-2009 DROP participant annuity in Year 1 is calculated as if they had received COLA from DROP start date (two three-percent COLAs)

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$40,155	\$128,092	\$168,247
Year 2	\$45,252	\$0	\$45,252	\$41,359	\$0	\$41,359
Year 3	\$46,609	\$0	\$46,609	\$42,600	\$0	\$42,600
Year 4	\$48,007	\$0	\$48,007	\$43,878	\$0	\$43,878
Year 5	\$49,448	\$0	\$49,448	\$45,194	\$0	\$45,194
Year 6	\$50,931	\$0	\$50,931	\$46,550	\$0	\$46,550
Year 7	\$52,459	\$0	\$52,459	\$47,947	\$0	\$47,947
Year 8	\$54,033	\$0	\$54,033	\$49,385	\$0	\$49,385
Year 9	\$55,654	\$0	\$55,654	\$50,867	\$0	\$50,867
Year 10	\$57,323	\$0	\$57,323	\$52,393	\$0	\$52,393
Year 11	\$59,043	\$0	\$59,043	\$53,965	\$0	\$53,965
Year 12	\$60,814	\$0	\$60,814	\$55,583	\$0	\$55,583
Year 13	\$62,639	\$0	\$62,639	\$57,251	\$0	\$57,251
Year 14	\$64,518	\$0	\$64,518	\$58,968	\$0	\$58,968
Year 15	\$66,453	\$0	\$66,453	\$60,738	\$0	\$60,738
Year 16						
Year 17						
Year 18						
Year 19						
Year 20						
Year 21						
Year 22						
Year 23						
Year 24						
Year 25						
Year 26						
Year 27						
Year 28						
Year 29						
Year 30						
Year 31						
Year 32						
Year 33						
Year 34						
Year 35						
Total	\$817,116	\$0	\$817,116	\$746,833	\$128,092	\$874,926

Summary

Non-DROP Participant 15 Year Benefit	\$817,116
DROP Participant 15 Year Benefit	\$874,926
Difference	\$57,809

Summary - Present Value Basis*

PV of Non-DROP Participant 15 Year Benefit	\$489,818
PV of DROP Participant 15 Year Benefit	\$575,780
Difference	\$85,961

* Assumes 7.75% annual interest rate

Non-Actuarial Comparisons

25-Years of Post-Retirement Annuity Payments – Pre-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 25 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary	\$60,598
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$41,661
Avg EE Contribution	9.00%	\$5,454
Interest Rate	7.00%	
Total Est. DROP		\$156,775

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$41,661	\$156,775	\$198,436
Year 2	\$45,252	\$0	\$45,252	\$42,911	\$0	\$42,911
Year 3	\$46,609	\$0	\$46,609	\$44,198	\$0	\$44,198
Year 4	\$48,007	\$0	\$48,007	\$45,524	\$0	\$45,524
Year 5	\$49,448	\$0	\$49,448	\$46,890	\$0	\$46,890
Year 6	\$50,931	\$0	\$50,931	\$48,297	\$0	\$48,297
Year 7	\$52,459	\$0	\$52,459	\$49,746	\$0	\$49,746
Year 8	\$54,033	\$0	\$54,033	\$51,238	\$0	\$51,238
Year 9	\$55,654	\$0	\$55,654	\$52,775	\$0	\$52,775
Year 10	\$57,323	\$0	\$57,323	\$54,358	\$0	\$54,358
Year 11	\$59,043	\$0	\$59,043	\$55,989	\$0	\$55,989
Year 12	\$60,814	\$0	\$60,814	\$57,669	\$0	\$57,669
Year 13	\$62,639	\$0	\$62,639	\$59,399	\$0	\$59,399
Year 14	\$64,518	\$0	\$64,518	\$61,181	\$0	\$61,181
Year 15	\$66,453	\$0	\$66,453	\$63,016	\$0	\$63,016
Year 16	\$68,447	\$0	\$68,447	\$64,907	\$0	\$64,907
Year 17	\$70,500	\$0	\$70,500	\$66,854	\$0	\$66,854
Year 18	\$72,615	\$0	\$72,615	\$68,859	\$0	\$68,859
Year 19	\$74,794	\$0	\$74,794	\$70,925	\$0	\$70,925
Year 20	\$77,038	\$0	\$77,038	\$73,053	\$0	\$73,053
Year 21	\$79,349	\$0	\$79,349	\$75,245	\$0	\$75,245
Year 22	\$81,729	\$0	\$81,729	\$77,502	\$0	\$77,502
Year 23	\$84,181	\$0	\$84,181	\$79,827	\$0	\$79,827
Year 24	\$86,707	\$0	\$86,707	\$82,222	\$0	\$82,222
Year 25	\$89,308	\$0	\$89,308	\$84,688	\$0	\$84,688
Year 26						
Year 27						
Year 28						
Year 29						
Year 30						
Year 31						
Year 32						
Year 33						
Year 34						
Year 35						
Total	\$1,601,785	\$0	\$1,601,785	\$1,518,934	\$156,775	\$1,675,709

Summary

Non-DROP Participant 25 Year Benefit	\$1,601,785
DROP Participant 25 Year Benefit	\$1,675,709
Difference	\$73,924

Summary - Present Value Basis*

PV of Non-DROP Participant 25 Year Benefit	\$673,735
PV of DROP Participant 25 Year Benefit	\$795,662
Difference	\$121,927

* Assumes 7.75% annual interest rate

Non-Actuarial Comparisons

25-Years of Post-Retirement Annuity Payments – Post-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 25 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary - Non-DROP	\$60,598
Final Average Salary - DROP	\$55,054
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$37,850
Avg EE Contribt	8.00%	\$4,848
Interest Rate	0.00%	
Total Est. DROP		\$128,092

Note: Post-2009 DROP participant annuity in Year 1 is calculated as if they had received COLA from DROP start date (two three-percent COLAs)

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$40,155	\$128,092	\$168,247
Year 2	\$45,252	\$0	\$45,252	\$41,359	\$0	\$41,359
Year 3	\$46,609	\$0	\$46,609	\$42,600	\$0	\$42,600
Year 4	\$48,007	\$0	\$48,007	\$43,878	\$0	\$43,878
Year 5	\$49,448	\$0	\$49,448	\$45,194	\$0	\$45,194
Year 6	\$50,931	\$0	\$50,931	\$46,550	\$0	\$46,550
Year 7	\$52,459	\$0	\$52,459	\$47,947	\$0	\$47,947
Year 8	\$54,033	\$0	\$54,033	\$49,385	\$0	\$49,385
Year 9	\$55,654	\$0	\$55,654	\$50,867	\$0	\$50,867
Year 10	\$57,323	\$0	\$57,323	\$52,393	\$0	\$52,393
Year 11	\$59,043	\$0	\$59,043	\$53,965	\$0	\$53,965
Year 12	\$60,814	\$0	\$60,814	\$55,583	\$0	\$55,583
Year 13	\$62,639	\$0	\$62,639	\$57,251	\$0	\$57,251
Year 14	\$64,518	\$0	\$64,518	\$58,968	\$0	\$58,968
Year 15	\$66,453	\$0	\$66,453	\$60,738	\$0	\$60,738
Year 16	\$68,447	\$0	\$68,447	\$62,560	\$0	\$62,560
Year 17	\$70,500	\$0	\$70,500	\$64,436	\$0	\$64,436
Year 18	\$72,615	\$0	\$72,615	\$66,370	\$0	\$66,370
Year 19	\$74,794	\$0	\$74,794	\$68,361	\$0	\$68,361
Year 20	\$77,038	\$0	\$77,038	\$70,411	\$0	\$70,411
Year 21	\$79,349	\$0	\$79,349	\$72,524	\$0	\$72,524
Year 22	\$81,729	\$0	\$81,729	\$74,700	\$0	\$74,700
Year 23	\$84,181	\$0	\$84,181	\$76,940	\$0	\$76,940
Year 24	\$86,707	\$0	\$86,707	\$79,249	\$0	\$79,249
Year 25	\$89,308	\$0	\$89,308	\$81,626	\$0	\$81,626
Year 26						
Year 27						
Year 28						
Year 29						
Year 30						
Year 31						
Year 32						
Year 33						
Year 34						
Year 35						
Total	\$1,601,785	\$0	\$1,601,785	\$1,464,010	\$128,092	\$1,592,102

Summary

Non-DROP Participant 25 Year Benefit	\$1,601,785
DROP Participant 25 Year Benefit	\$1,592,102
Difference	-\$9,683

Summary - Present Value Basis*

PV of Non-DROP Participant 25 Year Benefit	\$673,735
PV of DROP Participant 25 Year Benefit	\$743,877
Difference	\$70,142

* Assumes 7.75% annual interest rate

Non-Actuarial Comparisons

35-Years of Post-Retirement Annuity Payments – Pre-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 35 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary	\$60,598
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$41,661
Avg EE Contributi	9.00%	\$5,454
Interest Rate	7.00%	
Total Est. DROP		\$156,775

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$41,661	\$156,775	\$198,436
Year 2	\$45,252	\$0	\$45,252	\$42,911	\$0	\$42,911
Year 3	\$46,609	\$0	\$46,609	\$44,198	\$0	\$44,198
Year 4	\$48,007	\$0	\$48,007	\$45,524	\$0	\$45,524
Year 5	\$49,448	\$0	\$49,448	\$46,890	\$0	\$46,890
Year 6	\$50,931	\$0	\$50,931	\$48,297	\$0	\$48,297
Year 7	\$52,459	\$0	\$52,459	\$49,746	\$0	\$49,746
Year 8	\$54,033	\$0	\$54,033	\$51,238	\$0	\$51,238
Year 9	\$55,654	\$0	\$55,654	\$52,775	\$0	\$52,775
Year 10	\$57,323	\$0	\$57,323	\$54,358	\$0	\$54,358
Year 11	\$59,043	\$0	\$59,043	\$55,989	\$0	\$55,989
Year 12	\$60,814	\$0	\$60,814	\$57,669	\$0	\$57,669
Year 13	\$62,639	\$0	\$62,639	\$59,399	\$0	\$59,399
Year 14	\$64,518	\$0	\$64,518	\$61,181	\$0	\$61,181
Year 15	\$66,453	\$0	\$66,453	\$63,016	\$0	\$63,016
Year 16	\$68,447	\$0	\$68,447	\$64,907	\$0	\$64,907
Year 17	\$70,500	\$0	\$70,500	\$66,854	\$0	\$66,854
Year 18	\$72,615	\$0	\$72,615	\$68,859	\$0	\$68,859
Year 19	\$74,794	\$0	\$74,794	\$70,925	\$0	\$70,925
Year 20	\$77,038	\$0	\$77,038	\$73,053	\$0	\$73,053
Year 21	\$79,349	\$0	\$79,349	\$75,245	\$0	\$75,245
Year 22	\$81,729	\$0	\$81,729	\$77,502	\$0	\$77,502
Year 23	\$84,181	\$0	\$84,181	\$79,827	\$0	\$79,827
Year 24	\$86,707	\$0	\$86,707	\$82,222	\$0	\$82,222
Year 25	\$89,308	\$0	\$89,308	\$84,688	\$0	\$84,688
Year 26	\$91,987	\$0	\$91,987	\$87,229	\$0	\$87,229
Year 27	\$94,747	\$0	\$94,747	\$89,846	\$0	\$89,846
Year 28	\$97,589	\$0	\$97,589	\$92,541	\$0	\$92,541
Year 29	\$100,517	\$0	\$100,517	\$95,318	\$0	\$95,318
Year 30	\$103,532	\$0	\$103,532	\$98,177	\$0	\$98,177
Year 31	\$106,638	\$0	\$106,638	\$101,122	\$0	\$101,122
Year 32	\$109,837	\$0	\$109,837	\$104,156	\$0	\$104,156
Year 33	\$113,133	\$0	\$113,133	\$107,281	\$0	\$107,281
Year 34	\$116,527	\$0	\$116,527	\$110,499	\$0	\$110,499
Year 35	\$120,022	\$0	\$120,022	\$113,814	\$0	\$113,814
Total	\$2,656,314	\$0	\$2,656,314	\$2,518,918	\$156,775	\$2,675,694

Summary

Non-DROP Participant 35 Year Benefit	\$2,656,314
DROP Participant 35 Year Benefit	\$2,675,694
Difference	\$19,380

Summary - Present Value Basis*

PV of Non-DROP Participant 35 Year Benefit	\$790,906
PV of DROP Participant 35 Year Benefit	\$906,772
Difference	\$115,866

* Assumes 7.75% annual interest rate

Non-Actuarial Comparisons

35-Years of Post-Retirement Annuity Payments – Post-2009 Hire

Assumptions

- 28 years of completed service
- \$56,824 annual salary in 25th YOS
- 35 year post-retirement life expectancy
- Service benefit includes 3% annual COLA
- Salary growth of 3.25% per year

Year of Service	Annual Salary	Service Accrual
23-24	\$53,303	63.25%
24-25	\$55,035	66.00%
25-26	\$56,824	68.75%
26-27	\$58,671	70.00%
27-28	\$60,577	71.25%
28-29	\$62,546	72.50%

Calculations

Final Average Salary - Non-DROP	\$60,598
Final Average Salary - DROP	\$55,054
Non-DROP Service Retirement	72.50%
DROP Service Retirement	68.75%

Estimated DROP Lump Sum

Pension	68.75%	\$37,850
Avg EE Contribt	8.00%	\$4,848
Interest Rate	0.00%	
Total Est. DROP		\$128,092

Note: Post-2009 DROP participant annuity in Year 1 is calculated as if they had received COLA from DROP start date (two three-percent COLAs)

Year of Retirement	Non-DROP Participant			DROP Participant		
	Service Benefit	Lump Sum	Total	Service Benefit	Lump Sum	Total
Year 1	\$43,934	\$0	\$43,934	\$40,155	\$128,092	\$168,247
Year 2	\$45,252	\$0	\$45,252	\$41,359	\$0	\$41,359
Year 3	\$46,609	\$0	\$46,609	\$42,600	\$0	\$42,600
Year 4	\$48,007	\$0	\$48,007	\$43,878	\$0	\$43,878
Year 5	\$49,448	\$0	\$49,448	\$45,194	\$0	\$45,194
Year 6	\$50,931	\$0	\$50,931	\$46,550	\$0	\$46,550
Year 7	\$52,459	\$0	\$52,459	\$47,947	\$0	\$47,947
Year 8	\$54,033	\$0	\$54,033	\$49,385	\$0	\$49,385
Year 9	\$55,654	\$0	\$55,654	\$50,867	\$0	\$50,867
Year 10	\$57,323	\$0	\$57,323	\$52,393	\$0	\$52,393
Year 11	\$59,043	\$0	\$59,043	\$53,965	\$0	\$53,965
Year 12	\$60,814	\$0	\$60,814	\$55,583	\$0	\$55,583
Year 13	\$62,639	\$0	\$62,639	\$57,251	\$0	\$57,251
Year 14	\$64,518	\$0	\$64,518	\$58,968	\$0	\$58,968
Year 15	\$66,453	\$0	\$66,453	\$60,738	\$0	\$60,738
Year 16	\$68,447	\$0	\$68,447	\$62,560	\$0	\$62,560
Year 17	\$70,500	\$0	\$70,500	\$64,436	\$0	\$64,436
Year 18	\$72,615	\$0	\$72,615	\$66,370	\$0	\$66,370
Year 19	\$74,794	\$0	\$74,794	\$68,361	\$0	\$68,361
Year 20	\$77,038	\$0	\$77,038	\$70,411	\$0	\$70,411
Year 21	\$79,349	\$0	\$79,349	\$72,524	\$0	\$72,524
Year 22	\$81,729	\$0	\$81,729	\$74,700	\$0	\$74,700
Year 23	\$84,181	\$0	\$84,181	\$76,940	\$0	\$76,940
Year 24	\$86,707	\$0	\$86,707	\$79,249	\$0	\$79,249
Year 25	\$89,308	\$0	\$89,308	\$81,626	\$0	\$81,626
Year 26	\$91,987	\$0	\$91,987	\$84,075	\$0	\$84,075
Year 27	\$94,747	\$0	\$94,747	\$86,597	\$0	\$86,597
Year 28	\$97,589	\$0	\$97,589	\$89,195	\$0	\$89,195
Year 29	\$100,517	\$0	\$100,517	\$91,871	\$0	\$91,871
Year 30	\$103,532	\$0	\$103,532	\$94,627	\$0	\$94,627
Year 31	\$106,638	\$0	\$106,638	\$97,466	\$0	\$97,466
Year 32	\$109,837	\$0	\$109,837	\$100,390	\$0	\$100,390
Year 33	\$113,133	\$0	\$113,133	\$103,402	\$0	\$103,402
Year 34	\$116,527	\$0	\$116,527	\$106,504	\$0	\$106,504
Year 35	\$120,022	\$0	\$120,022	\$109,699	\$0	\$109,699
Total	\$2,656,314	\$0	\$2,656,314	\$2,427,835	\$128,092	\$2,555,927

Summary

Non-DROP Participant 35 Year Benefit	\$2,656,314
DROP Participant 35 Year Benefit	\$2,555,927
Difference	-\$100,387

Summary - Present Value Basis*

PV of Non-DROP Participant 35 Year Benefit	\$790,966
PV of DROP Participant 35 Year Benefit	\$850,969
Difference	\$60,064

* Assumes 7.75% annual interest rate



Questions
