

ALLEGHENY COUNTY EMPLOYEES'  
RETIREMENT SYSTEM ACTUARIAL REPORT

VALUATION REPORT  
WITH  
EXECUTIVE SUMMARY

AS OF JANUARY 1, 2012

ALLEGHENY COUNTY EMPLOYEES'  
RETIREMENT SYSTEM ACTUARIAL REPORT  
VALUATION AS OF JANUARY 1, 2012

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

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# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## PURPOSE OF THE REPORT AND ACTUARIAL CERTIFICATION

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### Purpose

The principal purposes of the report are to:

- Indicate the contribution necessary to maintain total funded status ratio at 100% and compare this amount with the contribution currently made by active members and the County;
- Disclose the financial condition of the Fund;
- Provide information relating to Statement No. 25 of the Government Accounting Standards Board (GASB).

### Actuarial Certification

To the best of our knowledge, this report is complete and accurate and fairly reflects the actuarial condition of the Allegheny County Employees' Retirement System as of January 1, 2012 and has been prepared in accordance with generally accepted actuarial principles and practices relating to pension plans.

In our opinion, the assumptions used in preparing this actuarial report are individually and in the aggregate reasonably related to the experience under the plan and to reasonable expectations, and represent our best estimate as of the valuation date of anticipated experience under the plan.

Finally, this valuation was based upon the membership data submitted by the Retirement Board and the asset information supplied by the Board.

  
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Bradford L. Rigby, A.S.A., E.A., M.A.A.A.

  
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Nancy K. Luttrell, F.S.A., E.A., F.C.A., M.A.A.A.

  
\_\_\_\_\_  
Paul D. Halliwell, Project Coordinator

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**SUMMARY OF PRINCIPAL RESULTS**

	<i>January 1, 2011</i>	<i>January 1, 2012</i>
<b>Demographics</b>		
Active Participants		
Number	7,739	7,410
Average Age	47.1	47.4
Average Age at Hire	34.8	34.5
Average Past Service	12.4	12.9
Total Payroll (prior year)	\$ 344,971	\$ 329,178
Covered Payroll*	357,290	340,881
Average Pay	44,576	44,435
Inactive Participants		
Number in Pay Status	4,414	4,399
Average Age in Pay Status	74.4	74.3
Average Monthly Benefit	\$ 1,256	\$ 1,306
Number of Terminated Vested	179	177
Average Age of Terminated Vested	50.9	50.9
Average Monthly Benefit	\$ 1,128	\$ 1,202
Total Participants	12,332	11,986
<b>Total Active Member and County Contributions during preceding 12 months</b>		
Dollars	40,310	46,953
Percentage of Payroll	12%	14%

\* Projected to next year using salary increase assumption.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**SUMMARY OF PRINCIPAL RESULTS (Continued)**

	<i>January 1, 2011</i>	<i>January 1, 2012</i>
	(\$ Amounts in Thousands)	(\$ Amounts in Thousands)
<b>Interest Rate</b>	7.75%	7.75%
<b>Accrued Benefit Funded Status</b>		
Accrued Benefit Liability	1,055,938	1,072,583
Market Value of Assets	699,302	685,100
Accrued Benefit Funded Ratio	66.2%	63.9%
<b>Actuarial Liability Funded Status</b>		
Actuarial Liability	1,191,102	1,235,830
Actuarial Value of Assets	699,302	685,100
Funded Ratio	58.7%	55.4%
<b>Total Funded Status</b>		
Value of Total Liabilities	1,431,987	1,437,358
Value of Total Assets (Market Value of Existing Assets and Present Value of Future Contributions)	1,062,270	1,078,660
Total Ratio	74.2%	75.0%
<b>Total Normal Cost</b>		
Dollar	31,608	26,798
% of Payroll	8.85%	7.86%

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 1 - STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS  
AS OF DECEMBER 31, 2011**

	<i>Dollar Amount</i>	<i>% of Net</i>
A. Assets at Market Value		
Cash and Cash Equivalents	\$ 11,782,042	1.72%
Investments	671,169,015	97.97%
Accrued Interest and Dividends Receivable	1,447,332	0.21%
Contributions Receivable	2,234,522	0.33%
Receivable from Brokers and Other Assets	752,556	0.11%
Total Assets	<u>687,385,467</u>	<u>100.34%</u>
B. Liabilities		
Refunds Payable and Other Accrued Liabilities	1,767,230	0.26%
Liabilities for Securities Purchased and Other Miscellaneous Liabilities	<u>518,734</u>	<u>0.08%</u>
Total Current Liabilities	<u>2,285,964</u>	<u>0.34%</u>
C. Net Assets Available for Benefits	\$ 685,099,503	100.00%

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 2 - CHANGES IN NET ASSETS  
AS OF DECEMBER 31, 2011**

		<i>Dollar Amount</i>	
A.	Balance in Fund at December 31, 2010 (at Market and Audited)	\$	699,301,548
B.	Adjustment from Audited Statement		(48)
C.	Income		
	1. Employee Contributions	23,546,922	
	2. County Contributions	23,406,380	
	3. Miscellaneous Contributions	0	
	4. Interest	5,792,559	
	5. Dividends	6,539,642	
	6. Miscellaneous Income	201,336	
	7. Investment Management Fees	<u>(1,733,672)</u>	57,753,167
D.	Disbursements		
	1. Benefit Payments	68,120,680	
	2. Contribution Refunds	4,051,359	
	3. Salaries, Wages & Related Expenses	279,124	
	4. Administrative and Miscellaneous Expenses	<u>835,981</u>	73,287,144
E.	Realized and Unrealized Appreciation		<u>1,331,980</u>
F.	Balance in Fund at December 31, 2011 (A) + (B) + (C) - (D) + (E) (at Market and Audited)	\$	685,099,503

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 3 - NORMAL COST**

(\$ Amounts in Thousands)

<i>Item</i>	<i>January 1, 2011</i>	<i>January 1, 2012</i>
A. Actuarial Present Value of Future Benefits		
1. Active	\$ 855,817	\$ 845,640
2. In Pay Status	548,941	564,735
3. Terminated Vested	17,981	18,164
4. Total	<u>1,422,739</u>	<u>1,428,539</u>
B. Actuarial Accrued Liability	1,191,102	1,235,830
C. Present Value of Future Normal Cost	231,637	192,709
D. Benefit Normal Cost	30,750	25,961
E. Expense Loading	858	837
F. Total Normal Cost: D + E	31,608	26,798
G. Covered Payroll	357,290	340,881
H. Total Normal Cost as a % of Compensation	8.85%	7.86%

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 4 - ANALYSIS OF CHANGE IN UNFUNDED ACCRUED LIABILITY**

Plan Year January 1, 2011 to December 31, 2011

The following table develops the actuarial gain or loss that occurred during the prior plan year. The gain or loss measures the difference between actual experience and that expected based upon the actuarial assumptions in effect for the period under study. Specifically, we examine the changes in the unfunded actuarial accrued liability as determined by the actuarial funding method being used. Some of the changes are due to these experience variations (gains and losses) while others are the result of such items as benefit improvements and normal benefit accruals.

(\$ Amounts in Thousands)

<i>Item</i>	<i>Amount</i>
A. Expected Unfunded Actuarial Accrued Liability	
1. Unfunded Liability on December 31, 2010	\$ 491,800
2. Normal Cost	31,608
3. Interest on (1) and (2)	40,564
4. Contributions	46,953
5. Interest on (4)	1,819
6. Subtotal: (1) + (2) + (3) - (4) - (5)	<u>515,200</u>
7. Additional Liability due to:	
a. Plan Amendments	0
b. Method Changes	0
c. Assumption Changes	1,341
d. Subtotal: (a) + (b) + (c)	<u>1,341</u>
8. Expected Unfunded Liability on December 31, 2011: (6) + (7d)	<u>516,541</u>
B. Unfunded Actuarial Accrued Liability	
1. Actuarial Liability on December 31, 2011	1,235,830
2. Actuarial Value of Assets	<u>685,100</u>
3. Unfunded Actuarial Liability: (1) - (2)	550,730
C. Actuarial Gain (Loss): A(8) - B(3)	\$ (34,189)

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 5 - GASB 25 STATEMENT OF DISCLOSURE**

Plan Year January 1, 2011 to December 31, 2011

Governmental Accounting Standards Board Statement No. 25 (GASB 25) effective for fiscal years beginning after June 15, 1996 covers financial reporting for this pension plan. The financial statements and the required schedules are as follows and certain information is included for review by the Plan's auditor:

1. A statement of plan net assets: See Table 1 of this report
2. A statement of changes in plan net assets: See Table 2 of this report
3. A required schedule of funding progress: Table 5 of this report
4. A required schedule of employer contributions: Table 5 of this report

The actuarial assumptions and methods are the same as those listed under 2012 Actuarial Methods and Assumptions on Page 20. GASB 25 also requires certain notes to the financial statements that are outside the scope of this valuation.

**A. SCHEDULE OF FUNDING PROGRESS**

(\$ Amounts in Thousands)

<i>As of Dec. 31st</i>	<i>Actuarial Asset Value</i>	<i>Actuarial Accrued Liability*</i>	<i>Unfunded Actuarial Accrued Liability</i>	<i>Funded Ratio</i>	<i>Covered Payroll</i>	<i>Unfunded Liability as a % of Payroll</i>
2007	\$ 798,203	979,599	181,396	81.5%	317,380	57.2%
2008	582,099	1,067,015	484,916	54.6%	326,803	148.4%
2009	652,643	1,119,326	466,683	58.3%	340,879	136.9%
2010	699,302	1,191,102	491,800	58.7%	357,290	137.7%
2011	685,100	1,235,830	550,730	55.4%	340,881	161.6%

\*Effective January 1, 2011, the assumed return on plan assets was lowered to 7.75% from 8.00%.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 5 - GASB 25 STATEMENT OF DISCLOSURE (Continued)**

Plan Year January 1, 2011 to December 31, 2011

**B. SCHEDULE OF EMPLOYER CONTRIBUTIONS**

(\$ Amounts in Thousands)

<i>Year Ended December 31</i>	<i>Annual Pension Cost</i>	<i>Percentage Contributed</i>
2009	\$ 62,952	30.6%
2010	60,760	33.0%
2011	59,490	39.0%

NOTES:

The unfunded liability has been amortized over a rolling 15-year period and is added to the employer normal cost. This is the Annual Required Contribution (ARC) for the year. The unfunded liability is based on the Market Value of Assets.

This report contains limited information related to GASB 25 and 27. Additional information is outside the scope of this report. The determination of the ARC is an Employer decision and not a function of the Allegheny County Retirement Board.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 6 - ANALYSIS OF VESTED AND ACCRUED BENEFITS  
(Benefit Security Ratio)  
AS OF DECEMBER 31, 2011**

(\$ Amounts in Thousands)

<i>Item</i>	<i>Number of Participants</i>	<i>Amount</i>
A. Present Value of Vested Benefits		
1. Retired and Beneficiaries	4,399	\$ 564,735
2. Terminated Vested	177	18,164
3. Actives	7,410	489,684
4. Total Vested	11,986	<u>1,072,583</u>
B. Present Value of Non-Vested Benefits		See Note 4
C. Total Present Value of Accrued Benefits	11,986	<u>1,072,583</u>
D. Market Value of Assets		\$ 685,100
E. Accrued Benefit Funded Ratio		63.9%

NOTES:

1. The vested analysis considers only those benefits for which the Plan participants are vested on a "going-concern" basis and are based upon each participant's age and service as of the date indicated.
2. The present value amounts shown were computed based upon the valuation assumptions for mortality, retirement age and interest.
3. The present value amounts shown above do not include an allowance for administrative expenses.
4. Employees are always 100% vested in their own contributions and interest thereon. The value of the contributions with interest tends to be larger than the value of total accrued benefits in the early years; therefore no attempt is made to distinguish between non-vested and vested benefits.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 6 - ANALYSIS OF ACCRUED BENEFITS AS OF DECEMBER 31, 2011 (Continued)**

(\$ Amounts in Thousands)

				<i>Amount</i>
A. Present Value of Accumulated Plan Benefits as of December 31, 2010				\$ 1,055,938
B. Increase(Decrease) Attributable to:				
	1. Plan Amendments			0
	2. Changes in the Nature of the Plan			0
	3. Changes in Actuarial Assumptions and Method Change			(1,858)
	4. Additional Benefits Accumulated			11,636
	5. Increase in Interest Due to the Decrease in the Discount Period			79,039
	6. Benefits Paid to Participants			(72,172)
	7. Total Net Changes			<u>16,645</u>
C. Present Value of Accumulated Plan Benefits as of December 31, 2011				\$ 1,072,583
D. Vested/Nonvested Active Population by Subgroups				
	<u>Police &amp; Fire</u>	<u>Non-Uniform</u>	<u>All Others</u>	<u>Total</u>
Vested	165	3,789	494	4,448
Nonvested*	<u>92</u>	<u>2,611</u>	<u>259</u>	<u>2,962</u>
	257	6,400	753	7,410
* Members are always 100% vested in their own contributions plus interest regardless of years of service.				

## ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

### TABLE 7 - ACTUARIAL BALANCE SHEET (Total Funded Status Ratio)

The following table develops the ratio of A) assets (existing assets and the discounted value of those assets that are expected to be provided by active member and County future contributions) to B) discounted value of liabilities for benefits that have been earned and that are expected to be earned in the future.

Ultimately a ratio of 100% or more is necessary for the long-term solvency of the Fund.

(\$ Amounts in Thousands)

Description	January 1, 2011	January 1, 2012
<b>A. Liabilities</b>		
1. Present Value of Future Benefits	\$ 1,422,739	\$ 1,428,539
2. Present Value of Future Non-Investment Related Expenses	9,248	8,819
3. Total Liabilities	1,431,987	1,437,358
<b>B. Assets</b>		
1. Market Value of Assets	699,302	685,100
2. Present Value of Future County Contributions*	181,484	196,780
3. Present Value of Future Employee Contributions*	181,484	196,780
4. Total Assets	\$ 1,062,270	\$ 1,078,660
<b>C. Ratio of Assets to Liabilities</b>	74.2%	75.0%

\* Measured using 14% combined active member and County contribution rate at 2011 and 16% at 2012.

Ratio of Assets to Liabilities at other combined Contribution Rates	
Using 18% combined rate. Increase effective 2013.	77.9%
Using annual increases of 2% (1%/1%) from 2013 to 2014.	80.5%
Using 20% combined rate. Increase effective 2013.	80.8%

#### NOTES:

- 1) In general, asset gains or liability gains must occur over the long-term or the member/County rate must increase in order to achieve the 100%. What may be equally important for the long term solvency is the influx of new participants.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 8 - PLAN PARTICIPANTS INCLUDED IN THE VALUATION**

The following table traces the flow of participants from the prior valuation date to the current valuation date. This table is based upon census data provided by the County.

<i>Reason for Change</i>	<i>Active</i>	<i>Terminated</i>			<i>Survivor</i>	<i>Total</i>
		<i>Vested</i>	<i>Disabled</i>	<i>Retired</i>		
Participants at 1/1/2011	7,739	179	161	3,582	671	12,332
New Participants	552	0	0	0	0	552
Returned to Work	6	(6)	0	0	0	0
Deaths (Refund or Survivor Pension)	(29)	(3)	(10)	(178)	(63)	(283)
New Survivors	0	0	0	0	46	46
Retirements	(159)	(16)	0	175	0	0
Disability	(7)	(1)	8	0	0	0
Terminated						
Vested	(37)	37	0	0	0	0
Non Vested or Refunds	(655)	(14)	0	0	0	(669)
Net Adjustments	0	1	0	7	0	8
Participants at 1/1/2012	7,410	177	159	3,586	654	11,986

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 9 - AGE/SERVICE/SALARY DISTRIBUTION**

<i>Profile Of Age, Service And Salaries Of Active Participants as of December 31, 2011</i>									
<i>All Active Employees (Uniformed and Non-Uniformed)</i>									
	0-4	5-9	10-14	15-19	20-24	25-29	30 +	Total	Ave Pay
Age Group									
under 20	16	-	-	-	-	-	-	16	
	298,826	-	-	-	-	-	-	298,826	18,677
20-24	235	7	-	-	-	-	-	242	
	5,981,871	189,741	-	-	-	-	-	6,171,613	25,503
25-29	435	91	3	-	-	-	-	529	
	14,388,754	3,693,985	93,058	-	-	-	-	18,175,797	34,359
30-34	296	253	73	2	-	-	-	624	
	10,446,622	10,987,122	3,338,380	65,659	-	-	-	24,837,782	39,804
35-39	211	213	239	33	2	-	-	698	
	7,981,126	10,387,160	12,632,130	1,645,747	72,798	-	-	32,718,961	46,875
40-44	187	192	221	164	46	-	-	810	
	7,396,803	8,700,451	11,768,303	9,094,962	2,123,939	-	-	39,084,458	48,252
45-49	186	171	212	170	187	71	5	1,002	
	7,198,339	7,604,406	10,202,716	9,268,959	10,084,259	3,786,750	226,811	48,372,240	48,276
50-54	181	197	220	154	180	155	143	1,230	
	6,678,679	8,709,744	9,962,443	7,900,177	9,596,420	8,306,283	6,795,230	57,948,976	47,113
55-59	126	168	186	146	151	125	251	1,153	
	4,374,978	7,420,532	8,502,206	7,373,525	7,427,017	6,389,451	12,133,429	53,621,138	46,506
60-64	96	117	149	92	93	75	171	793	
	3,370,396	4,546,434	6,154,292	4,303,978	4,457,694	3,598,146	8,699,405	35,130,345	44,301
65 +	21	60	69	43	37	28	53	311	
	600,193	2,032,408	2,435,924	1,920,268	1,655,650	1,432,721	2,740,308	12,817,473	41,214
Total Number	1,990	1,469	1,372	804	696	454	623	7,408	
Total Pay	68,716,588	64,271,983	65,089,452	41,573,275	35,417,777	23,513,351	30,595,183	329,177,609	
Ave. Pay	34,531	43,752	47,441	51,708	50,888	51,792	49,109	44,435	
Average Age	47.38			Average Service			12.9		

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 10 - CONTRIBUTION FUNDING CAPACITY (CLOSED GROUP BASIS)**

A pension plan *funding policy* should be designed to create a rational and systematic method for employer and active employee contributions to the pension plan in order to have sufficient funds available to pay for pension benefits as they come due.

The Allegheny County Retirement Board sets the contribution rate on an annual basis to be shared equally between members and the Employer as required by statute. Historically that rate is influenced by the estimated rate necessary to bring the Total Funded Status Ratio to 100% together with consideration of avoiding annual fluctuations of the member and Employer contribution rates.

As of January 1, 2012 the unfunded liability related to benefits already earned is approximately \$551 million. **Interest on this amount alone is about 12% of payroll.** The value of benefits being earned during 2012 is about 7.6% of payroll.

The table below shows that a level contribution necessary for the Fund is approximately 31% of Compensation, shared equally by the County and the active employees. This is determined on a closed group basis thereby spreading the cost of benefits for existing employees over only existing employees. On an open group basis it appears that 20% of Compensation could be sufficient (10% County and 10% employee).

<i>Item</i>	<i>Amount (x 1,000)</i>
A. Present Value of Liabilities and Expenses (Table 7)	\$ 1,437,358
B. Actuarial Value of Plan Assets	685,100
C. Present Value of Liabilities and Expenses not covered by Plan Assets: (A.) - (B.)	752,258
D. Present Value of Future Member Payroll	2,457,798
E. Annual Cost as a percent of payroll (County and Members)	30.61%
F. Annual Cost as a percent of payroll (County): One half of item E.	15.31%
G. TFSR Contribution to make Ratio 100%	
County: Item F rounded to the nearest one half of one percent	15.50%
Member: same as County	15.50%

An alternative to funding the liability over the average weighted future service life (weighted by age, service and salary) is to fund the liability over a fixed amortization period and as a level percentage of payroll. This method is perhaps the most common method for public pension plans. If done over 15 years the combined contribution rate would need to be 21%. If done over 30 years the combined rate would need to be 17%.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 11 - PROJECTION OF TOTAL FUNDED LIABILITY RATIO IF ALL ASSUMPTIONS ARE MET (CLOSED GROUP BASIS)**

(\$ Amounts in Thousands)

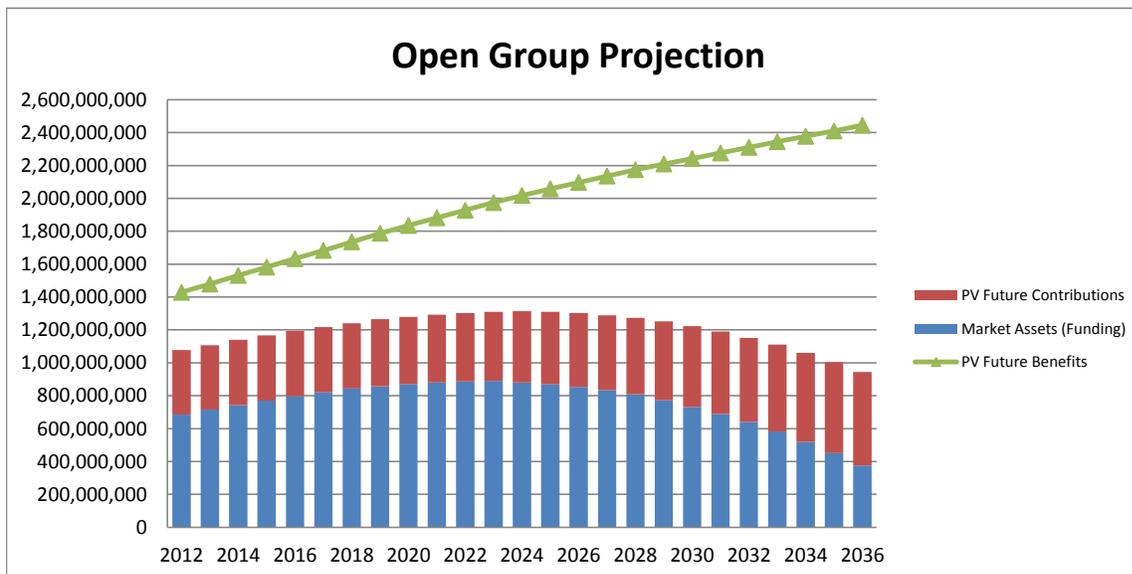
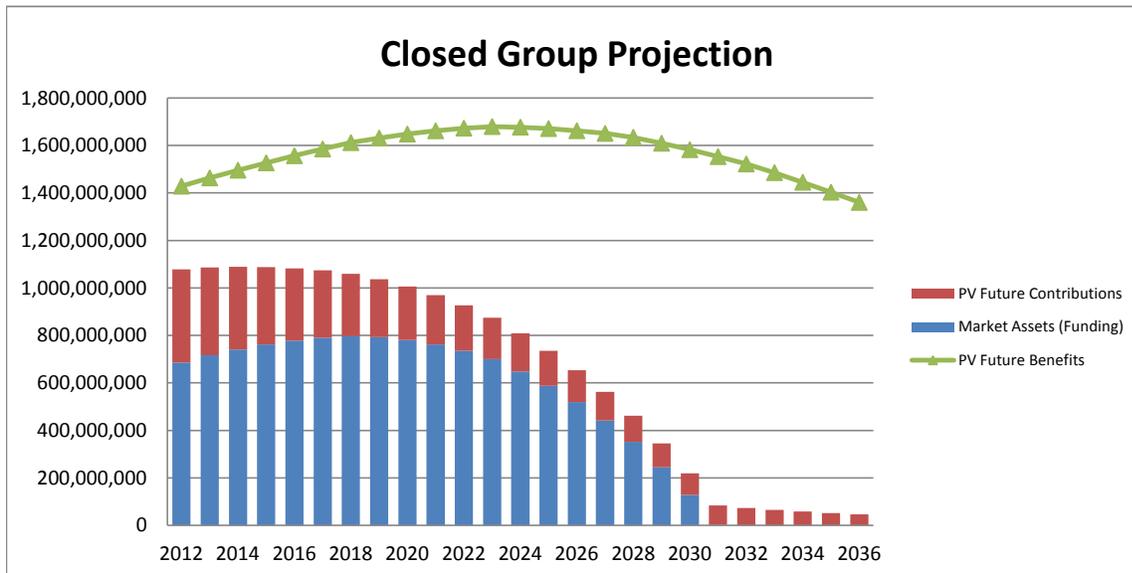
<i>Year</i>	<i>Expected Present Value of Future Benefits</i>	<i>Expected Assets in Plan</i>	<i>Expected Value of Future Contributions</i>	<i>Total Present Value of Current and Future Assets</i>	<i>8% Contribution Rate - Expected Total Funded Status</i>
2012	\$1,437,358	\$685,100	\$393,560	\$1,078,660	75%
2013	1,472,046	716,021	369,872	1,085,893	74%
2014	1,504,709	741,045	347,451	1,088,496	72%
2015	1,536,047	761,666	325,775	1,087,441	71%
2020	1,658,426	780,545	225,635	1,006,180	61%
2025	1,683,009	588,288	146,948	735,236	44%
2030	1,595,896	128,620	90,388	219,007	14%
2035	1,418,874	0	51,958	51,958	4%
2038	1,287,523	0	34,719	34,719	3%

NOTES:

1. The projections are based upon a combined rate of 16.0% of compensation.
2. Basis of projection: Closed Group Valuation Method. This means that no new participants are assumed to come into the plan. While there would be no new liability associated with those members, there would also be no additional employee and County contributions.
3. Additional COLA's have not been anticipated in this projection.
4. Table 12 on the following page illustrates the assumed progression over the next 25 years of the assets and liabilities both on an open group basis and a closed group basis if all actuarial assumptions are met. **Clearly adjustments will be required to the contribution rate, asset return, or plan liabilities for the necessary improvement in the overall health of the fund going forward.**

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**TABLE 12 - PROJECTION OF ACTUARIAL BALANCE SHEET ITEMS**



**NOTES**

Assumes contributions (County and Member) are 8% each.

**Basis of projection:**

**Closed Group Valuation Method.** This means that no new participants are assumed to come into the plan. While there would be no new liability associated with those new members, there would also be no additional employee and County contributions.

**Open Group Valuation Method:** This means new participants are assumed to come into the plan. There would be new liability associated with those new members as well as additional employee and County contributions. **Clearly adjustments will be required to the contribution rate, asset return, or plan liabilities for the necessary improvement in the overall health of the fund going forward.**

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## DEFINITIONS

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**Actuarial Present Value of Future Benefits (PVFB):**

Value at a point in time of all projected future benefit payments for current plan members (active, those who quit and will be entitled to a benefit sometime in the future and those in pay status). The value is determined using actuarial assumptions regarding future events.

**Actuarial Cost Method:**

A methodology that allocates the PVFB to past service and to expected future service.

**Actuarial Accrued Liability (AAL):**

The portion of PVFB allocated to **past service** by the Actuarial Cost Method. Note that the total PVFB for all non-active members is allocated to past service.

**Actuarial Present Value of Future Normal Cost (PVFNC):**

The portion of PVFB allocated to expected **future service** by the Actuarial Cost Method. Note that a future service portion applies only to active members.

**Normal Cost (NC):**

The portion of PVFNC that is allocated to the current year.

**Unfunded Liability:**

Portion of the AAL not covered by plan Assets.

**Present Value of Accrued Benefits:**

Value at a point in time of all future benefit payments for current plan members (active, those who quit and will be entitled to a benefit sometime in the future and those in pay status) based on pension salary and service to date. The value is determined using actuarial assumptions regarding future events except that no provision is made for salary increases or additional service that may be earned.

## ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

### DEFINITIONS (continued)

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The **Accrued Benefit Funded Status** reflects the relationship between the Actuarial Value of Benefits that have been accrued through the end of the current plan year and the Market Value of the Assets.

The **Actuarial Liability Funded Status** is, historically, perhaps the oldest measurement of funding progress and solvency and is the relationship between the *Actuarial Liability* and the *Actuarial Value* of existing assets. The Actuarial Liability is determined by the “Actuarial Method” used by the Fund’s actuary (in this case, the method commonly known as “Entry Age Normal”) and by the assumptions established by the actuary.

The **Total Funded Status** reflects not only existing assets and liabilities, but considers the value of future contributions, future benefit accruals and future expenses. The ratio formed between the Value of Total Assets (based on Market Value) and the Value of Total Liabilities represents the Fund’s ability to meet the long-range funding commitment demanded by the plan’s benefit structure. It is possible for a fund to exhibit strong funding factors when limited to accrued benefits and assets and, at the same time, be in funding jeopardy going forward.

The **GASB 25 Disclosure** is a funding progress disclosure required by the Governmental Accounting Standards Board. The figures developed for this purpose are identical to those used in the development of the Actuarial Liability Funded Status.

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

2012 ACTUARIAL METHODS AND ASSUMPTIONS

Assumptions shown in italics have changed since the last valuation.

**Mortality:**

1. Pre and Post-Retirement: RP-2000 Combined Table (Base Year = 2010), with blue-collar adjustments and with generational projections for future improvement by scale AA. This assumption was changed from the RP-2000 Combined Table projected to 2007 used last year.

2. Post-Disability: RP 2000 Disability Table. Sample rates are shown below for the period after disability retirement:

<u>Age</u>	<u>Male</u>	<u>Female</u>
40	0.02257	0.00745
55	0.03544	0.01654
75	0.08207	0.05223

**Interest:** 7.75% per annum, net of investment-related expenses.

**General Inflation:** 2.75% per annum.

**Withdrawal:** For non-uniformed employees, rates of withdrawal in accordance with the unisex select and ultimate table developed by the 2003 Society of Actuaries (SOA) Pension Plan Termination and Retirement Study. For Uniformed employees, 70% of the Non-Uniformed rates.

Upon termination, 50% of the non-uniformed members are assumed to elect a refund of contributions in lieu of a deferred benefit at retirement and 25% of all other groups are assumed to do so.

**Salary Scale:** Salaries are assumed to increase in accordance with the following table. This assumption includes GSA as well as merits, grade and promotion-related adjustments.

<u>Age</u>	<u>Rate/Yr</u>
<25	5.75%
25 to 29	5.25%
30 to 34	4.25%
35 to 39	3.75%
40 >	3.25%

**Disability:**

1. Police and Firefighters: Sample rates are shown below:

<u>Age</u>	<u>Rate of Disablement</u>
25	0.00060
40	0.00300
55	0.00590

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**2012 ACTUARIAL METHODS AND ASSUMPTIONS (continued)**

**Disability (continued):**

2. All Other Employees: Sample rates are shown below:

<u>Age</u>	<u>Rate of Disablement</u>
25	0.0003
40	0.0004
55	0.0039

For all groups, the disability rates are shut off once the employee reaches Normal Retirement Age since there is no difference, at that point, between Normal Retirement and Disability Retirement benefits.

**Retirement Age:**

1. Police, Firefighters, Sheriffs, Prison Guards and Probation Officers: A percentage of those eligible to retire at age 50 and later are assumed to retire. Sample rates are shown below:

Age	Police and Fire			Sheriff, Probation Officers, Jail Guards			Uniformed Employees
	Under 20 Years	20 Years (first eligible for full benefits)	21 Years and over	Under 20 Years	20 Years (first eligible for full benefits)	21 Years and over	Greater than 8 Years
50-54	0%	25%	25%	N/A	N/A	N/A	N/A
55-59	10%	25%	10%	10%	25%	25%	4%
60	10%	40%	40%	10%	25%	25%	10%
61	10%	25%	10%	10%	25%	10%	10%
62	10%	25%	10%	10%	40%	40%	20%
63	10%	25%	10%	10%	25%	10%	15%
64	10%	25%	10%	10%	25%	10%	15%
65	10%	25%	10%	10%	25%	10%	25%
66-69	10%	25%	10%	10%	25%	10%	15%
70	100%	100%	100%	100%	100%	100%	100%

**Spouses Benefit:** Husbands are assumed to be four year older than their wives and 100 percent of the active participants are assumed to be married.

**Future Expenses:** Investment Expenses are assumed to be a direct offset to the Investment Income of the Fund.

Annual non-investment expenses for the year 2012 were assumed to be \$837,000. This amount is 3x the reported salaries, wages, and related expenses.

## ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

### 2012 ACTUARIAL METHODS AND ASSUMPTIONS (continued)

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**Pop-Up Load:** Current retirees who have elected a survivorship option are assumed to have their monthly benefit increase by 12% if they survive their spouse.

**Actuarial Cost Method:** The actuarial accrued liability and normal cost are determined under the Entry Age Normal actuarial cost method. Under this method, normal cost percent is determined separately for each active participant as the level percent of expected career earnings required to fund expected plan benefits. A dollar normal cost is computed by applying this percent to the participant's expected earnings for the current plan year. The participant's actuarial accrued liability is the difference between the present value of all future plan benefits expected to be paid on his behalf and the present value of his future normal costs. This actuarial accrued liability represents the amount of assets that would theoretically be on hand at the valuation date if the current plan provisions and assumptions had always been in effect, historical experience conformed exactly to assumptions, and the participant's individual normal cost had been contributed each year.

Actuarial accrued liability for non-active participants is determined as the actuarial present value of the benefits expected to be paid; no normal cost is determined for these participants.

The normal cost and actuarial accrued liability for the plan are the sum of the individual normal costs (plus non-investment-related expenses expected to be paid from the trust during the plan year) and accrued liabilities.

**GASB 25:** The same actuarial assumptions are used for the other funding requirements.

**Asset Valuation Method:**

Market Value

**Code Section 415 and 401(a)(17) Limits:**

The Federally mandated annual benefit limit (\$200,000 in 2012) and compensation limit (\$250,000 in 2012) were projected to increase at 2.75% per year.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## SUMMARY OF PLAN PROVISIONS

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### GENERAL

**Plan Year:** January 1 - December 31

**Governing Statute:** P.L. 723, No. 230 (Second Class County Code)

**Effective Date:** July 28, 1953

**Last Amended:** Act No. 2002-185

### DEFINITIONS

**Final Average Salary:** Monthly average of the highest twenty-four months of compensation in last forty-eight preceding retirement. The "cap" on compensation was removed in 2000, provided the employee makes the required contributions (See Page 28)

**Early Retirement:** Reduced retirement benefits at age 55 with at least 8 years of service. (¶ 1701, ¶ 1710(a))

#### **Retirement Dates:**

Voluntary Normal Retirement: ¶ 1710(b)

1. Police and Firefighters: Any police officer or firefighter is eligible to voluntarily retire and receive a normal retirement benefit if he has attained age 50 and has at least 20 years of service.
2. Sheriffs, Deputy Sheriffs, Prison Guards and Probation Officers: Any sheriff, deputy sheriff, prison guard and probation officer is eligible to voluntarily retire and receive a normal retirement benefit if he has attained age 55 and has at least 20 years of service.
3. All Other Employees: All other County employees are eligible to voluntarily retire and receive a normal retirement benefit if they have attained age 60 and have at least 20 years of service.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## SUMMARY OF PLAN PROVISIONS (Continued)

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### Involuntary Retirement: ¶ 1710(b)

#### 1. Under Age 50:

An employee under age 50 who has twenty or more years of service and who is dismissed through no fault of his or her own may elect to receive immediately upon retirement a retirement allowance equal to 70% of the benefit he or she would have been entitled to receive had he or she been age 60 at the time of the dismissal and election.

An employee who does not elect the reduced retirement benefit upon dismissal will receive an unreduced retirement allowance and service increment, if any, upon attainment of age 60.

#### 2. Over Age 50:

An employee who has 20 or more years of service and has reached the age of 50, who is separated from service by reason of no cause or act of his or her own is entitled, upon application to the Retirement Board, to an unreduced retirement allowance plus a service increment, if any, based on the employee's age and years of service upon separation and application.

### Early Retirement: ¶ 1710(h) and definition in ¶ 1701

Any County employee who has completed at least 8 but less than 20 years of service is eligible to retire and receive a benefit commencing at age 60. Reduced benefits are available as early as age 55.

### Disability Retirement: (¶ 1711)

Any County employee who has completed at least 12 years of service and who was employed (or re-employed) prior to attaining age 55 who becomes mentally incapacitated or totally and permanently disabled is eligible to receive a disability retirement benefit. There is no age requirement to receive this benefit.

### Deferred Vested Retirement: ¶ 1713 (Options I & II)

Any County employee who terminates employment with at least 8 years of service is eligible for a deferred unreduced vested benefit beginning at age 60, or a benefit reduced by one half of 1% per month prior to age 60 but not before age 55.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## SUMMARY OF PLAN PROVISIONS (Continued)

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### **Ancillary Benefit Eligibility**

#### Pre-Retirement Spouse's Benefit: ¶ 1712(e) and (f)

Any County employee may elect the spouse's benefit at any time prior to retirement. The election is irrevocable after attained age 50.

1. Class I: If a County employee shall die after electing this coverage, and prior to retirement after attaining age 50 but prior to attaining age 55 and after completing at least 8 years but less than 20 years of service, his surviving spouse shall be eligible to receive a surviving spouse's benefit when the deceased employee would have attained age 55.
2. Class II: If a County employee shall die after electing this coverage but prior to retirement and prior to age 50 and with 20 or more years of service, his surviving spouse shall be eligible to receive a surviving spouse's benefit immediately.

#### Post-Retirement Spouse's Benefit: ¶ 1712(e)

If a County employee shall die after retiring and with a survivorship election in effect, his spouse shall be eligible to receive a surviving spouse's benefit.

#### "Pop-Up" Benefit: ¶ 1712(f):

If the spouse of a County employee who retired with a survivorship election in effect shall predecease or be legally separated from the employee, he shall be eligible to receive the "pop-up" benefit.

#### Death Benefits (Lump Sum):

1. Pre-Retirement; ¶ 1714(a): Any County employee who dies prior to retirement, without making a survivorship election and is ineligible for any form of retirement benefit shall be eligible for a refund of his contributions with interest.
2. Post-Retirement; ¶ 1714(b): Any County employee who dies after retirement but prior to receiving retirement benefits (including spouse's benefits) equal to his total contributions shall be eligible for a refund of the difference between his total contributions and retirement benefits received.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**SUMMARY OF PLAN PROVISIONS (Continued)**

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**Benefit Amounts**

Normal Retirement (Voluntary): ¶ 1712(a)

50 percent of final average salary (FAS) plus 1 percent of FAS for each year of service between 20 and 40 years

Normal Retirement (Involuntary): ¶ 1712(a)

50 percent of final average salary (FAS) plus 1 percent of FAS for each year of service between 20 and 40 years

Early Retirement:

2-1/2 percent of final average salary times years of service (up to 20 years) plus 1 percent of final average salary times years of service between 20 and 40 years.

Disability Retirement: ¶ 1711

50 percent of final average salary (FAS) plus 1 percent of FAS for each full year of service between 20 and 40 years

Deferred Vested Retirement: ¶ 1713

The deferred vested benefit amount is governed by years of service in the following schedule:

<u>Years of Service</u>	<u>Amount</u>
8 to 19	Early Retirement Benefit Amount
20 or more	Normal Retirement Benefit Amount

Involuntary Retirement: ¶ 1713

(If not eligible for Normal Retirement but with 20 or more years of service); The benefit as described on page 24.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## SUMMARY OF PLAN PROVISIONS (Continued)

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### Pre-Retirement Spouses Benefit: ¶ 1712(e), (f)

The benefit payable while a survivorship election is in effect is the normal or early retirement benefit reduced by a percentage based on the difference in age between an employee and his spouse. If the spouse is:

- |                        |  |
|------------------------|--|
| 1. Same age or younger | 10 percent plus 1 percent per year (in excess of five) for each year younger (maximum reduction of 30 percent) |
| 2. Older               | 10 percent minus 1/2 percent per year for each year older (minimum reduction of 5 percent)                     |

The benefit is also reduced by 1/2 percent per month prior to age 60 that it is received. Maximum reduction for this purpose is 30 percent.

### Post-Retirement Spouse's Benefit: ¶ 1712(e)

50 percent of the monthly benefit being received while both were alive, to those employees who elected the survivorship option under the pre-retirement spouse benefit

### "Pop-Up" Benefit: ¶ 1712(f)

Reinstatement of the benefit prior to the decrease described above.

### Death Benefits (Lump Sum): ¶ 1714(b)

1. Pre-Retirement: Sum of contributions made during:
  - a. The third and later years of employment accumulated at the designated rate of interest for each year, and
  - b. The first two years of employment with no interest
2. Post-Retirement
  - a. The difference between the total employee contributions made, and
  - b. All benefits paid

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

**SUMMARY OF PLAN PROVISIONS (Continued)**

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Payment of Benefits: ¶ 1712 (e), (f)

Benefits are payable monthly on a life annuity basis unless a survivorship election is in effect. In this event benefits are payable for the life of the employee and reducing to 50 percent of the benefit amount if he predeceases his spouse. If the spouse predeceases the employee the "Pop-Up" benefit reinstates the life annuity.

Monthly Retirement Allowance Increases: ¶ 1708 (e)

Based solely on the annual actuarial valuation, the Board has the authority to increase the monthly retirement allowance for members who have been retired for at least one year. The Total Funded Status Ratio (TFSR) is calculated at an interest rate which is the arithmetic average of the current valuation interest rate and the interest rates used for the four preceding valuations. The increase is based on the table below:

<u>TFSR</u>	<u>Percentage Increase</u>
< 110%	0% or more at discretion of the Board
>= 110%	2% or more at discretion of the Board. However, the resulting TFSR must be at least 110%.

The percentage increase is applied to the average monthly retirement allowance paid in the December prior to the valuation date and rounded down to the next lower dollar. This increase is added to the monthly retirement allowance of those eligible and is paid beginning in the January next following.

Contributions:

1. Employee Contributions: ¶ 1708: Employees contribute a percentage of pensionable compensation as specified annually by the Board. The current level is 7%.
2. County Contributions: ¶ 1709: Allegheny County contributes an amount equal to the sum of contributions of the employees.

NOTES:

- 1 With the removal of the covered compensation "cap", new retirees, in order to benefit from the cap's removal, will be required to contribute (at the required contribution rate of not more than 6.0%) on their uncapped level of pay for a minimum of five years. This requirement can be met through either ongoing employment or by making a "buy-back" contribution. County contributions will match any buy-back contributions.

Miscellaneous:

Certain retired police and firefighters received a special postretirement adjustment (Act 64 of 2002) that was effective for pension payments after June 30, 2002.

Discretionary COLA's of \$20/month were granted effective January 1, 2007 and January 1, 2009.

ALLEGHENY COUNTY EMPLOYEES'  
RETIREMENT SYSTEM ACTUARIAL REPORT  
EXECUTIVE SUMMARY

VALUATION AS OF JANUARY 1, 2012

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

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# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 1 - INTRODUCTION

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This Executive Summary and History contains information to enable the Retirement Board to assess the financial well-being of the Pension Fund. Five factors govern the Fund's financial status:

- Characteristics of the group of participants receiving benefits from the Fund, or expected to receive benefits in the future,
  - age
  - sex
  - benefit amount
  - form of payment
  
- Amount of Fund assets,
  
- Plan provisions defining the amount and form of benefits, and the conditions under which they are paid,
  
- Assumptions about future events,
  - investment return
  - mortality
  - disability
  - termination
  - retirement ages
  - salary
  
- Future changes in the work force or in contribution levels.

An analysis of the fund's financial status can be performed on either a closed group or an open group. A closed group analysis does not take account of future new members. As such, it gives a good indication of whether the fund can sustain itself in the absence of new members. Unless otherwise indicated, all information is provided on a closed group basis.

An open group analysis does take account of future new members. Assumptions are made to reflect an increasing, stable or declining population. Additional assumptions govern the age distribution of the new members. This analysis is considerably more complicated and outside the scope of a normal valuation, but it may be the most realistic indicator of the ongoing financial health of the Fund.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 2 - COMMENTS AND RECOMMENDATIONS

---

### Assumption Changes:

The following assumptions were changed since the prior valuation:

- Mortality - The mortality assumption was changed to include a blue collar adjustment, as well as a generational projection with a base year of 2010. The effect of this change is to slightly reduce plan liabilities in the immediate year, but to increase plan liabilities during multi-year projections.
- Pop-Up Load - the method for valuing the pop-up feature for current retirees was changed. The effect of this change is to increase plan liabilities in the current period and throughout multi-year projections.

These changes were made to better anticipate future plan experience.

### Method Changes:

The following methods were changed since the prior valuation:

- Payroll - The data provided for this year's valuation included actual pensionable pay. Data provided for prior years was a different definition than pensionable, requiring us to estimate earnings based on contributions during the plan year. We previously would assume that a participant's earnings were the greater of the a) provided earnings or b) the estimated amount. The new payroll data that is provided has allowed us to change methods to one that does not have the inherent conservatism of the "greater of" process.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

Section 2 - COMMENTS AND RECOMMENDATIONS (continued)

Contribution Analysis/Review of Funded Status

There are number of ratios that are useful in evaluating the funded status of the plan. These include:

A. Accrued Benefit Funded Status: ratio of the present value of benefits earned to date (i.e. no future salary or service) compared to the market value of assets (see page 10 of the report)

	2008	2009	2010	2011	2012
Funded Ratio	92.2%	66.8%	70.0%	66.2%	63.9%

B. Actuarial Accrued Liability Funded Status: ratio of the present value of benefits earned to date including expected future salary increases compared to the actuarial value of assets (see page 8 of the report)

	2008	2009	2010	2011	2012
Funded Ratio	81.5%	54.6%	58.3%	58.7%	55.4%

C. Total Funded Status Ratio (TFSR): ratio of the present value of benefits earned to date and benefits that are expected to be earned in the future (including future salary increases) compared to the market value of assets and present value of contributions to be made in the future.

	2008	2009	2010	2011	2012
Funded Ratio - 16% Contribution				77.2%	75.0%
Funded Ratio - 18% Contribution effective 2013					77.9%
Funded Ratio - graded 18% to 20% starting 2013				82.3%	80.5%
Funded Ratio - 20% Contribution effective 2013				83.4%	80.8%

As an added step in reviewing future contribution analysis, we believe it is practical and beneficial to focus on the current methodology for amortizing liabilities and to point out that alternative methodologies exist that could be explored.

Historically the Board has focused in on the TFSR. This ratio illustrates the funded status of the plan based on a given contribution level (currently 16%). Taking the TFSR concept one step further, we often "back into" what the contribution rate would need to be in order to reach the 100% funded status level. This calculation is shown on page 5. Underlying this calculation is an amortization of the past service liability as a level percentage of payroll over the average plan-weighted service life of current active employees (approximately 8.5 years).

The 2008 actuarial asset loss (actual dollar loss plus the dollar loss of the 8% assumed return on the assets) decreased the TFSR significantly. The 2009 and 2010 actuarial asset gain improved the ratio somewhat, however the reduction in the expectation of long-term asset returns to 7.75% reduced the funding ratio. A combination of return on investments over and above the current 7.75% return, actuarial gains from members behaving differently than assumed, increased contributions into the plan or decreased liabilities will be required to return to pre 2009 levels.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 2 - COMMENTS AND RECOMMENDATIONS (continued)

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### Actuarial Assumptions/Recommendations

We continue to recommend some increase to the county and member contribution rate for the benefit levels currently enjoyed by the plan's members. On a closed group basis, we believe a rate of approximately 31% (15.5% employer and 15.5% employee) would be required to achieve full funding. The rate could be approximately 20% (10% employer and 10% employee) on an open group basis. As long as the plan is ongoing, the open group concept is acceptable for determining the long term contribution requirement. We recommend an increase to a contribution rate of 10% employer and 10% employee (total 20%) starting in 2013.

While we appreciate that it is a very difficult economic environment to earmark additional funds into the retirement plan at this time, there is an increasing risk that the plan will not be able to grow sufficiently at the current contribution level to sustain itself over the long term. The plan would be particularly vulnerable to insufficient funds if there is another downward drop in the market.

**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

Section 2 - COMMENTS AND RECOMMENDATIONS (continued)

\$ Amounts in Thousands

**CLOSED GROUP ANALYSIS**

<i>Item</i>	<i>January 1, 2012</i>
A. Present Value of Liabilities and Expenses*	\$ 1,437,358
B. Plan Assets	685,100
C. Present Value of Liabilities and Expenses not Covered by Plan Assets: (A.) - (B.)	752,258
D. Present Value of Future Member Payroll	2,457,798
E. Annual Cost as a percent of payroll (County and Members)**	30.61%
F. Annual Cost as a percent of payroll (County): One half of item E.	15.31%
G. Annual Cost as a percent of payroll (Members): One half of item E.	15.31%
H. TFSR Contribution	
County: Item G rounded to the nearest one half of one percent	15.50%
Member: same as County	15.50%

\* From Table 7 in the report.

\*\* Equal to (C) divided by (D) which is the level % of payroll to amortize (C) over the estimated plan weighted service life of approximately 8.5 years. See comments on the previous page for lengthening the amortization period.

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 3 - PARTICIPANT DATA

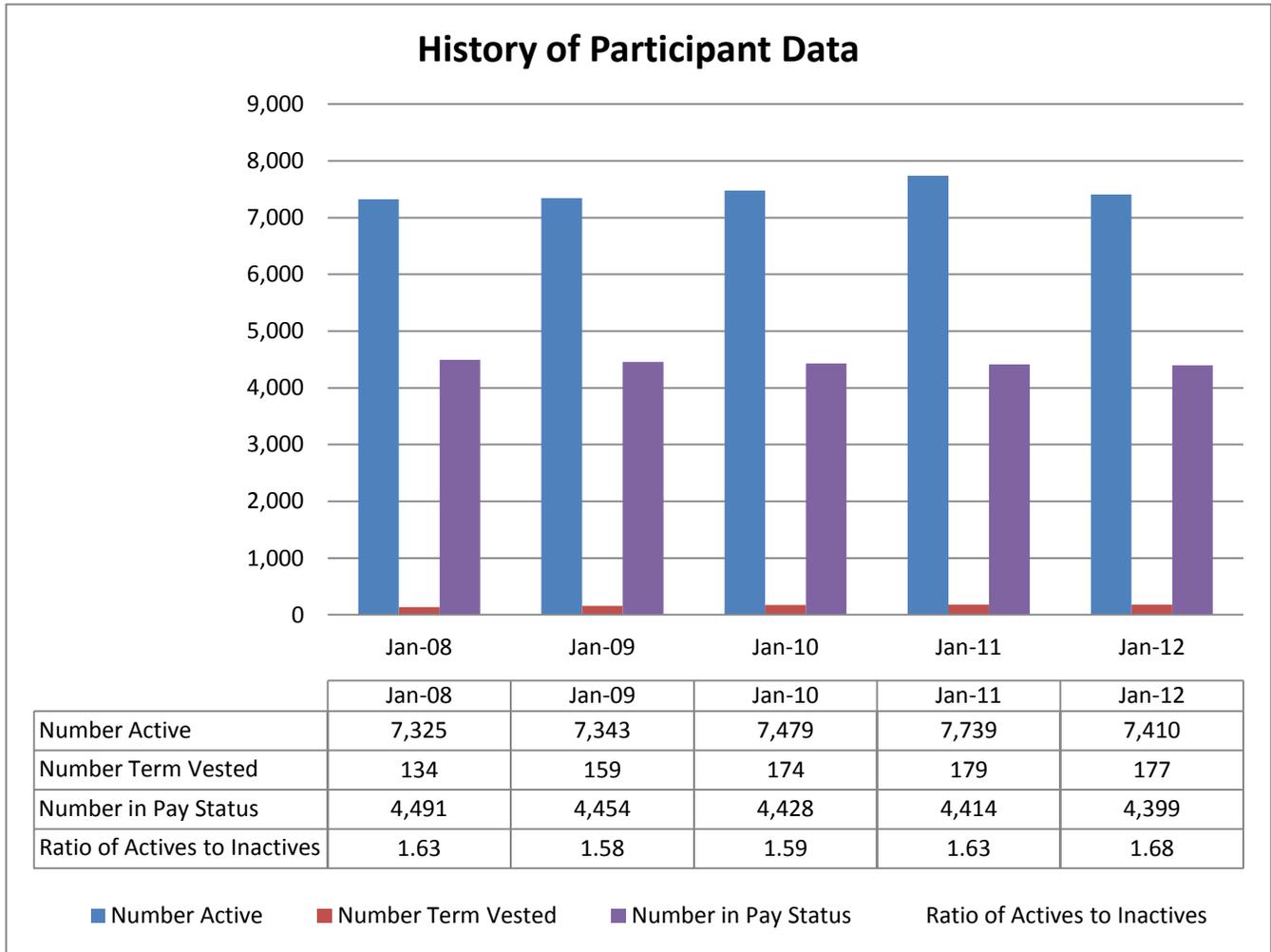
	<i>Jan 1, 2007</i>	<i>Jan 1, 2008</i>	<i>Jan 1, 2009</i>	<i>Jan 1, 2010</i>	<i>Jan 1, 2011</i>	<i>Jan 1, 2012</i>
<b>INACTIVE PARTICIPANTS:</b>						
Average Age						
Terminated Vested	50.3	50.6	50.1	50.2	50.9	50.9
In Pay Status	73.3	73.8	74.1	74.2	74.4	74.3
Average Monthly Pension						
Terminated Vested	\$ 1,032	\$ 1,111	\$ 1,122	\$ 1,109	\$ 1,128	\$ 1,202
In Pay Status	\$ 1,096	\$ 1,144	\$ 1,190	\$ 1,222	\$ 1,256	\$ 1,306
<b>ACTIVE PARTICIPANTS:</b>						
Average Age						
At Entry	34.4	34.8	34.6	34.5	34.8	34.5
Current	46.3	46.4	46.7	47.0	47.1	47.4
Average Service	11.9	12.0	12.2	12.4	12.4	12.9
Total Covered Payroll (x1000)	\$ 291,731	\$ 317,380	\$ 326,803	\$ 340,879	\$ 357,290	\$ 340,881
Average Prior Years Payroll (reported)	\$ 37,792	\$ 39,056	\$ 40,078	\$ 40,997	\$ 41,624	\$ 44,435
% Change in Average Payroll	2.3%	3.3%	2.6%	2.3%	1.5%	6.8%

# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 3 - PARTICIPANT DATA (continued)

This section contains current and historical information about covered participants.

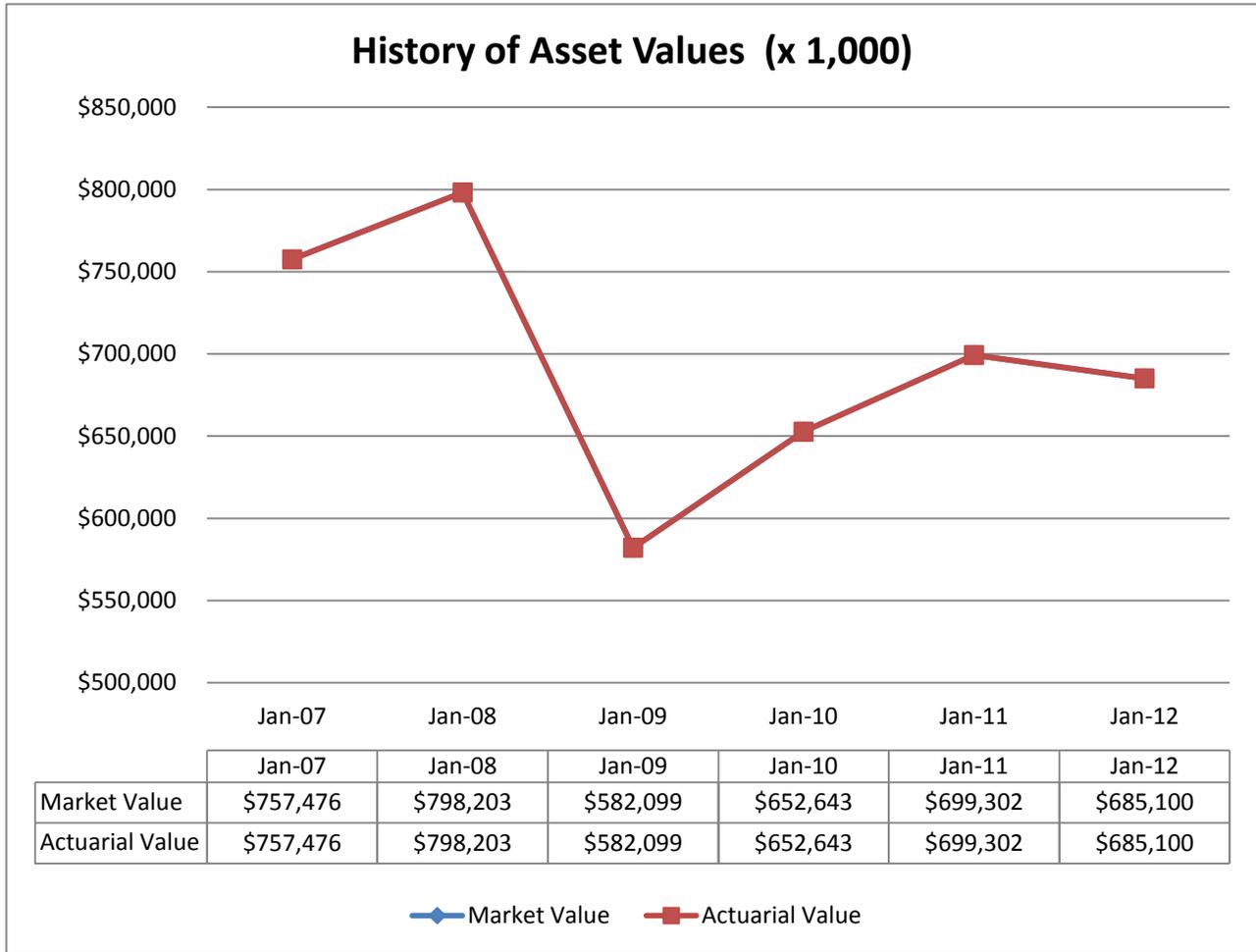
The ratio of actives to inactives has remained relatively stable. For an underfunded plan that relies on member contributions (matched by County) the level of the member population is important.



# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 4 - ASSETS AND PLAN CONTRIBUTIONS

This section contains historical information about market and actuarial values of assets, rates of return and about plan contributions. All dollar amounts shown are in thousands of dollars. For the 2007 and later valuations, actuarial value equals market value.



**ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM**

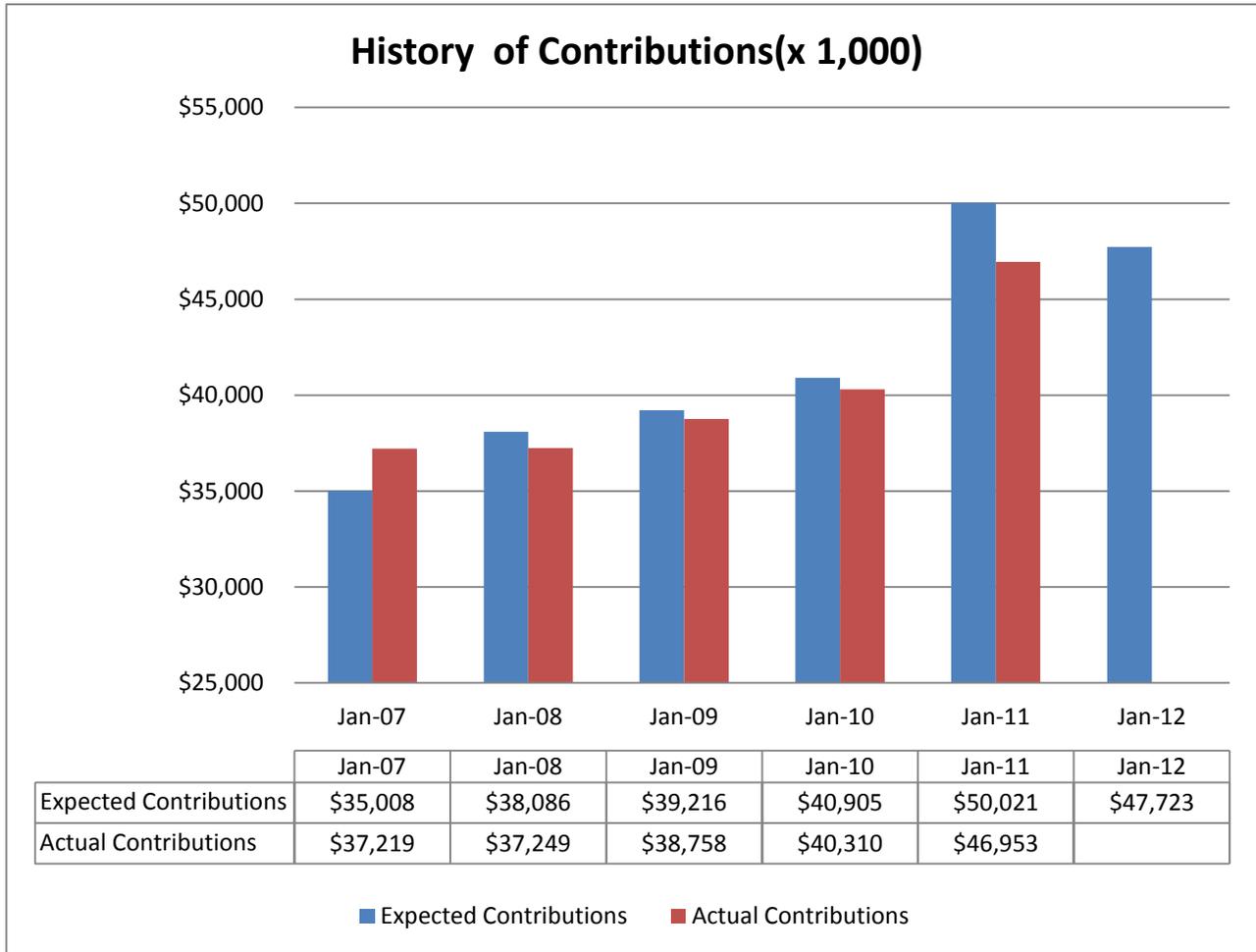
Section 4 - ASSETS AND PLAN CONTRIBUTIONS (continued)

Period Beginning	<i>Return On Market Value</i>					
	Period Ending					
	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009	Dec 31, 2010	Dec 31, 2011
January 1, 2006	10.24%	9.76%	-2.71%	1.98%	3.91%	3.55%
January 1, 2007		9.29%	-8.61%	-0.64%	2.39%	2.26%
January 1, 2008			-23.58%	-5.26%	0.18%	0.58%
January 1, 2009				17.45%	14.71%	10.22%
January 1, 2010					12.03%	6.77%
January 1, 2011						1.77%

## ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

### Section 4 - ASSETS AND PLAN CONTRIBUTIONS (continued)

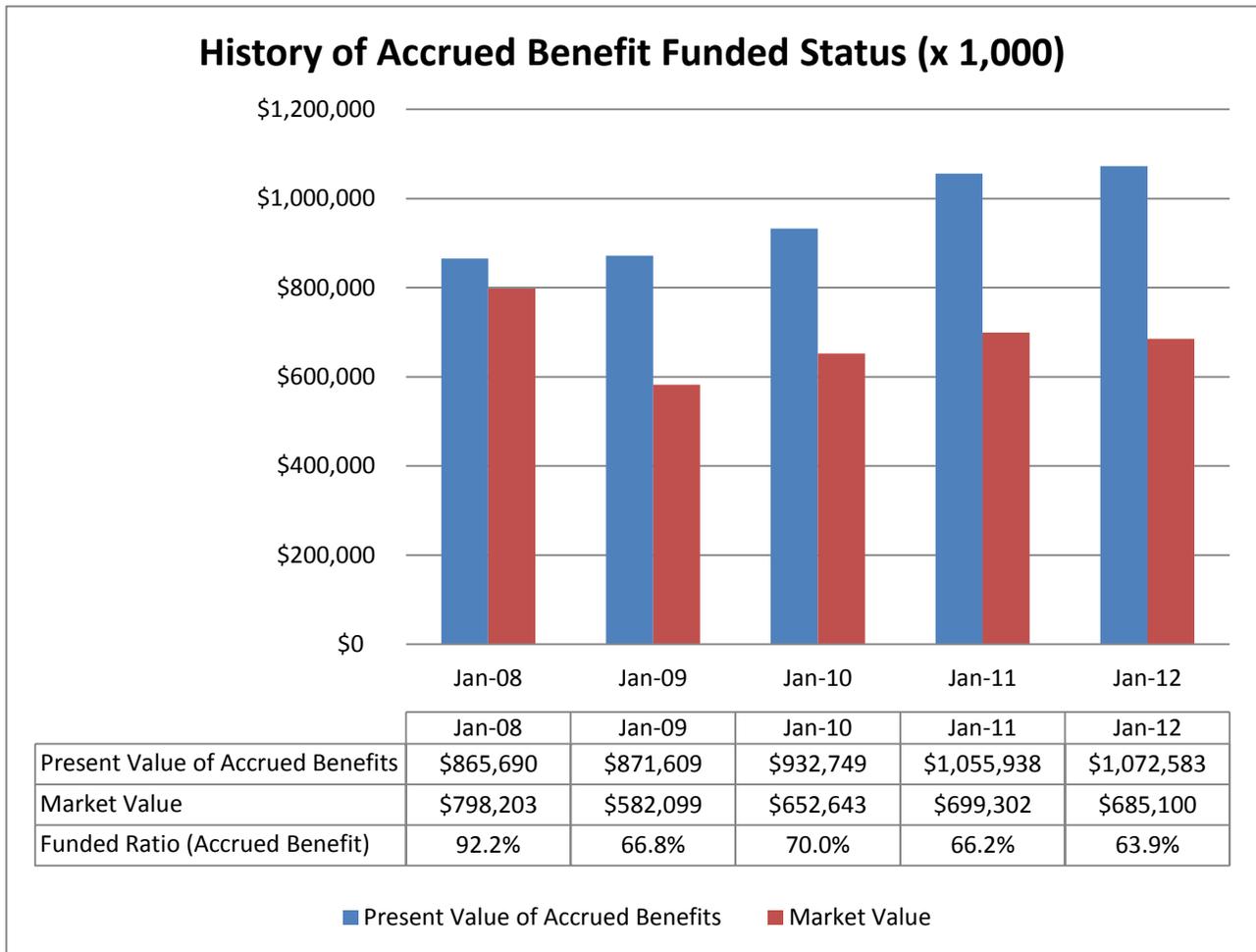
This section contains historical information about the expected and actual contributions.



# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 5 - HISTORY OF FUNDED RATIOS

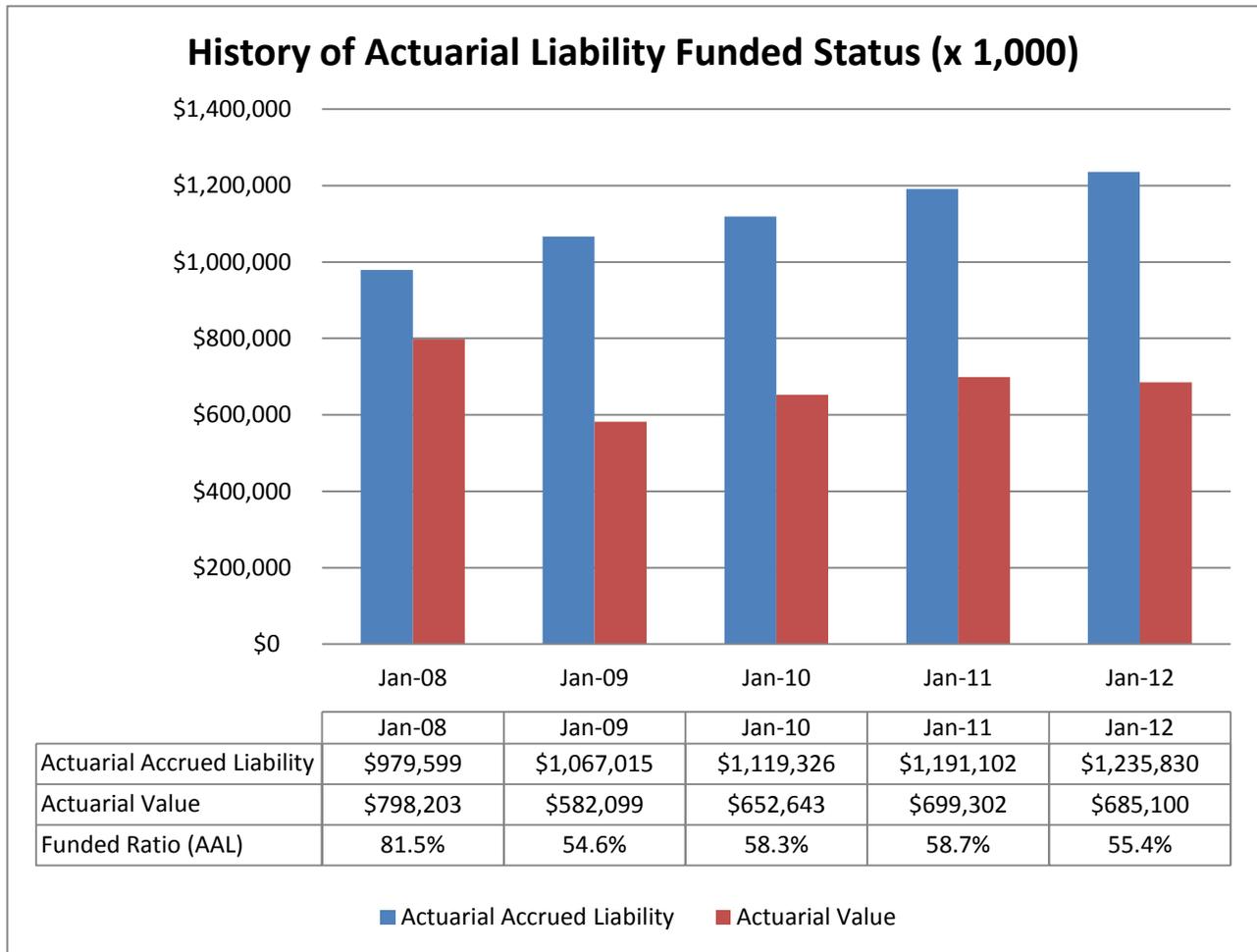
One important measure of a pension fund's financial health is the ratio of existing plan assets (market value) to the present value of accrued benefits [Accrued Benefit Funded Status]. The present value of accrued benefits incorporates benefits that members have earned, whether or not they are in pay status. The present value of accrued benefits does not consider future service or future salary.



## ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

### Section 5 - HISTORY OF FUNDED RATIOS (continued)

A second measure of financial well-being is the ratio of “**actuarial** value of assets” to the “actuarial liability” [Actuarial Liability Funded Status]. There are two major differences between the Accrued Benefit Funded Status and the Actuarial Liability Funded Status. One is the asset value used (market vs. actuarial) and the other difference is that the actuarial accrued liability generally reflects anticipated future salary increases while the present value of accrued benefits does not. The actuarial liability is a function of the actuarial funding method adopted by the fund and, as such, will vary by the funding method adopted. A precise comparison between plans is possible only if the methods as well as the assumptions are identical. The difference between the actuarial liability and the **actuarial** value of assets is referred to as the “unfunded liability”.

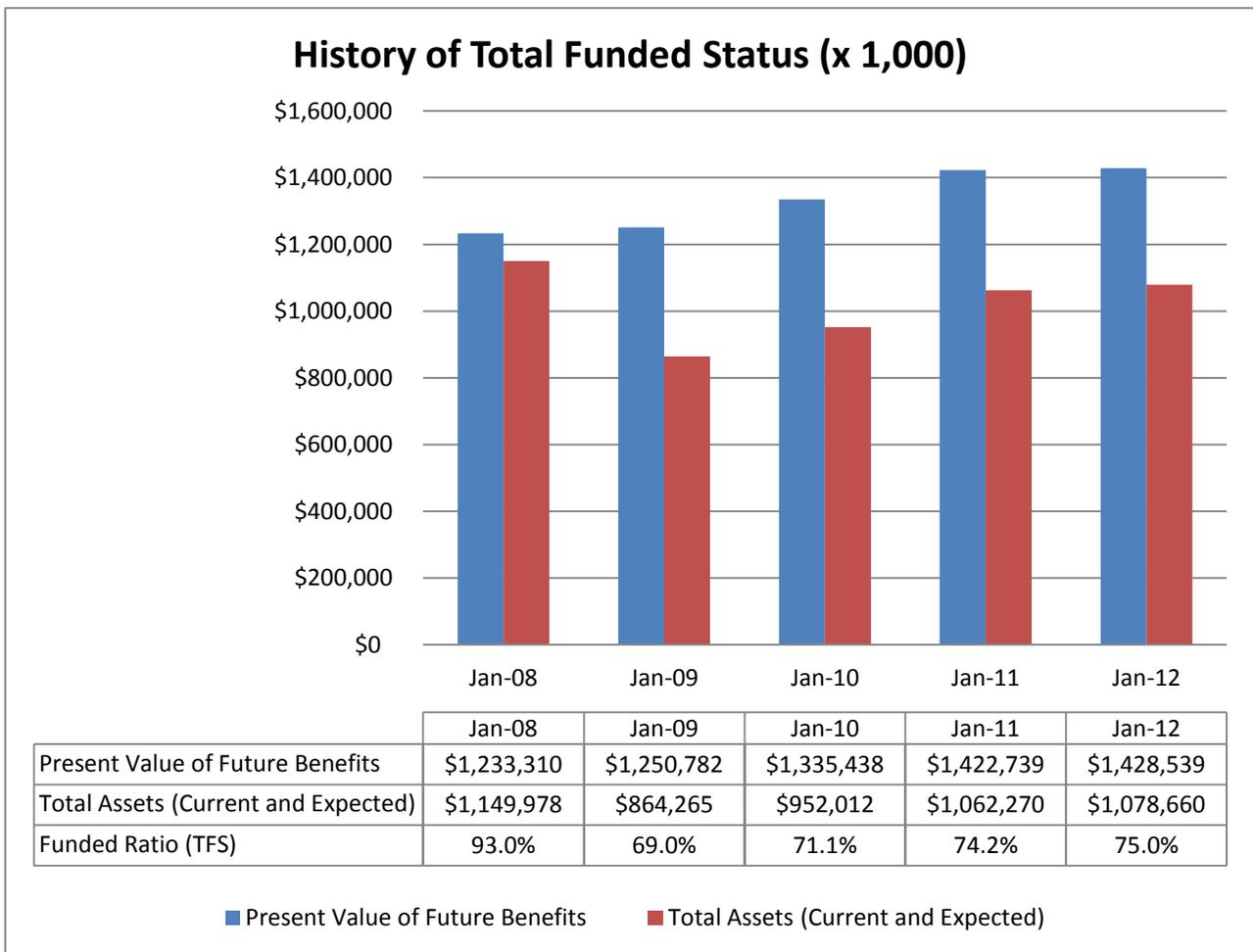


# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 5 - HISTORY OF FUNDED RATIOS (continued)

A third, and perhaps the most important, measure of a fund's financial well-being is the "total assets" to "total liabilities" ratio [Total Funded Status Ratio or TFSR]. This measure incorporates the benefits members have already earned, as well as the benefits they are expected to earn in the future. Plan assets available to meet these current and future obligations include existing assets (**market** value), together with the present value of contributions expected to be made in the future.

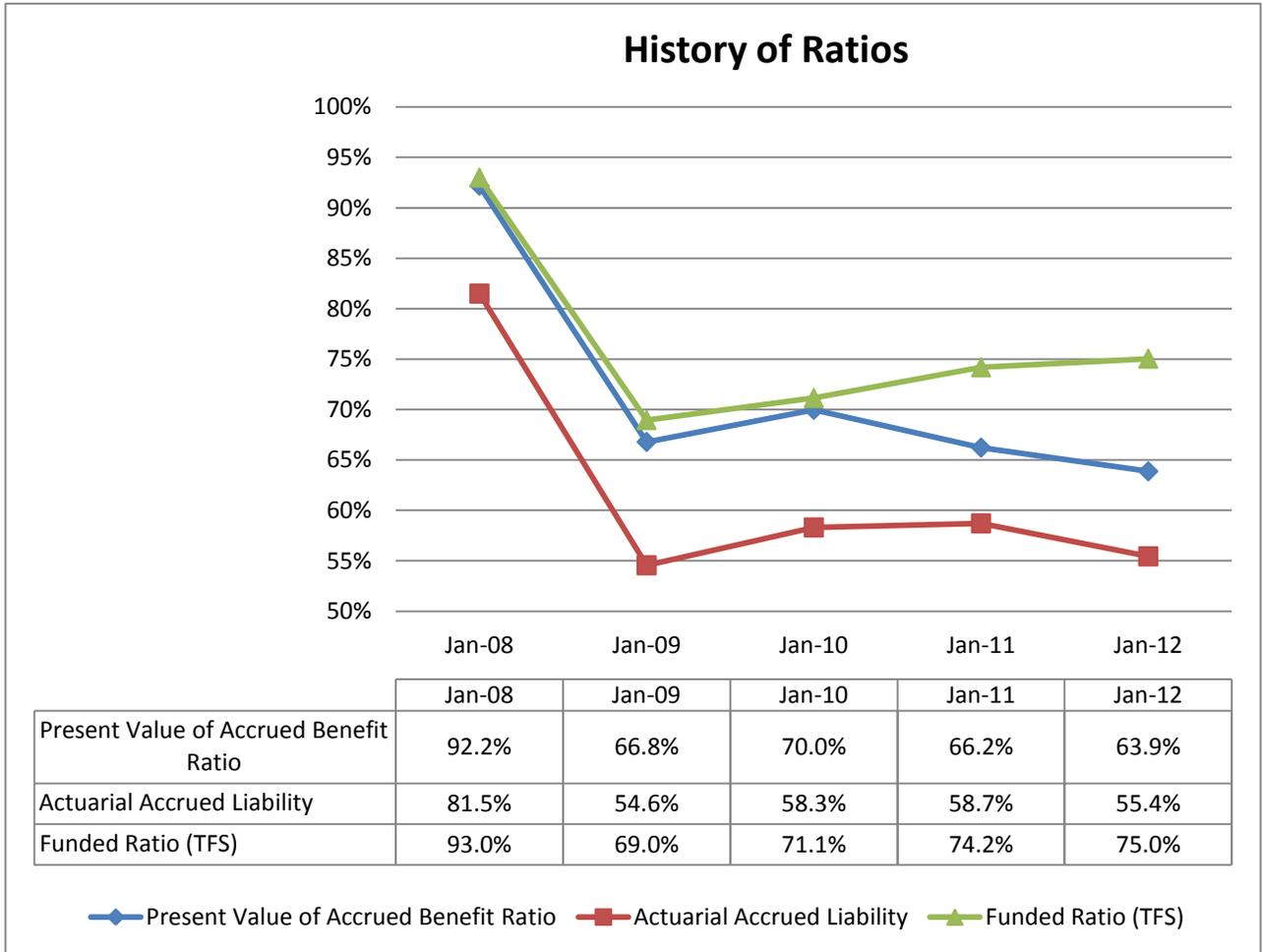
A ratio of 100% or more is a favorable indicator. A ratio of less than 100% may be tolerated over the short-term but a ratio of 100% is necessary for the long-term solvency of the Fund.



# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 5 - HISTORY OF FUNDED RATIOS (continued)

The following chart compares the ratios previously described and graphed.



# ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

## Section 5 - HISTORY OF FUNDED RATIOS

The Normal Cost of a plan is determined by the adopted actuarial funding method - in this case, by the entry-age normal cost method. Under this method, the normal cost is defined as a level of contribution (% or \$) such that the present value of all future normal costs at entry age is precisely equal to the present value of all future benefits (and expenses) at entry age. This is a most important figure for, barring future actuarial gains/losses or benefit modifications, the plan's total cost will eventually reach this level. This occurs when the Unfunded Liability is exactly equal to \$0.

The normal cost also represents the pension cost associated with future employees (assuming the demographic profile of future employees is similar to that of the current group of participants). It is possible for a plan to adequately fund for its current participants at a fixed contribution level but realize, too late, that these contributions understate the cost that will be associated with future hires.

The change in assumptions in 2009 resulted in an inadvertent change that shifted too much of the liability from Normal Cost to Actuarial Accrued Liability. A correction was made for 2010. The drop from 2008 to 2009 is the result of the shift.

