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IPERS
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IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Actuarial Valuation Report as of June 30, 2012

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Cavanaugh Macdonald
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The experience and dedication you deserve

November 7, 2012

Investment Board
Iowa Public Employees' Retirement System
7401 Register Drive
Des Moines, IA 50321

Re: June 30, 2012 Actuarial Valuation Report

Dear Board Members:

In this report are submitted the results of the annual valuation of the assets and liabilities of the Iowa Public Employees' Retirement System (System) prepared as of June 30, 2012. The purpose of this report is to provide a summary of the funded status of the System as of June 30, 2012 and to provide the Annual Required Contribution (ARC) and the accounting information under Governmental Accounting Standards Board (GASB) Statement No. 25. While not verifying the data at its source, the actuary performed tests for consistency and reasonableness.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

We further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Investment Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

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Some actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Other actuarial computations presented in this report under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix B of this report, and of GASB Statement No. 25. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonable based on the actual experience of the System. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report and look forward to discussing it with you.

Patrice Beckham

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent A. Banister

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary

INTRODUCTION

This report presents the results of the June 30, 2012 actuarial valuation of the Iowa Public Employees' Retirement System (IPERS). The primary purposes of performing the valuation are as follows:

- to determine the actuarial contribution rates for the Regular Membership and the Special Service Groups (Group 1 includes sheriffs and deputies, Group 2 includes all other public safety members) in accordance with the Contribution Rate Funding Policy (described in Appendix D),
- to evaluate the funded status of the System and disclose various asset and liability measures as of June 30, 2012,
- to determine the experience of the System since the last valuation, and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on June 30, 2012. The results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability (UAL) that was higher than expected. The UAL on June 30, 2012 for all membership groups covered by IPERS (Regular Members and both Special Service Groups) is $5.916 billion as compared to an expected UAL of $5.857 billion. The unfavorable experience was the combination of an experience loss of $168 million on the actuarial value of assets and an experience gain of about $109 million on System liabilities.

Historically, the statutory contribution rate for Regular Members was set in statute. Effective with the 2011 valuation, IPERS has the authority to implement actuarially determined contribution rates for the Regular Membership Group, subject to a change of no more than 1% per year. The 2012 actuarial valuation results, which set the contribution rates for FY 2014, indicate that for the first time since the 2001 actuarial valuation, the statutory contribution rate is equal to the actuarial contribution rate. Further detail on the valuation results can be found in the following sections of this Executive Summary.

Contribution Rate for FY2014			
	Regular Membership	Special Service Group 1*	Special Service Group 2**
1. Normal Cost Rate	10.17%	16.62%	16.04%
2. Amortization of UAL over 30 years	4.71%	3.14%	0.86%
3. Total Contribution Rate	14.88%	19.76%	16.90%
4. Statutory Contribution Rate	14.88%	19.76%	16.90%
5. Shortfall (3) – (4)	0.00%	0.00%	0.00%
6. Years to Amortize (based on (4))	30	30	30
7. Employee Contribution Rate	5.95%	9.88%	6.76%
8. Employer Contribution Rate (4) - (7)	8.93%	9.88%	10.14%
9 Unfunded Actuarial Liability ($M)	$5,806	$57	$53
10. Funded Ratio	79.2%	88.7%	95.1%

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXPERIENCE FOR THE LAST PLAN YEAR

Numerous factors contributed to the change in the Systems' assets, liabilities and remaining amortization period for the unfunded actuarial liability between June 30, 2011 and June 30, 2012. The components are examined in the following discussion.

ASSETS

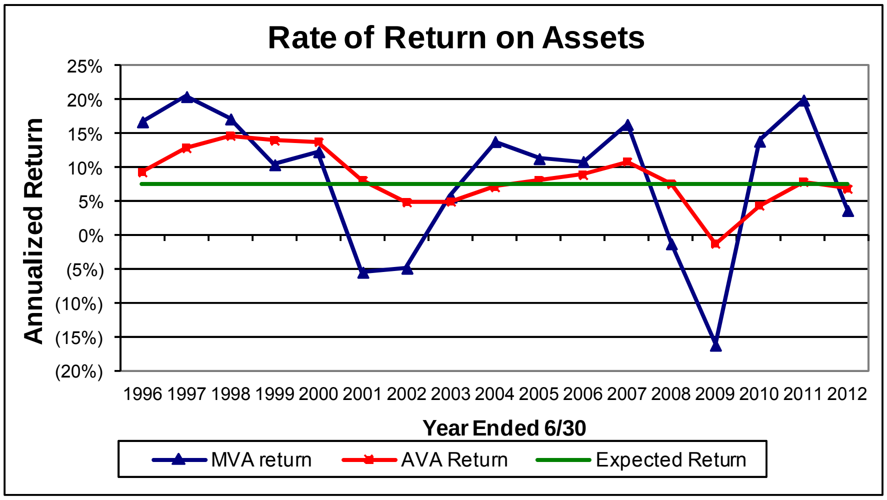
As of June 30, 2012, the System (all membership groups) had total assets of $23.025 billion, when measured on a market value basis, **excluding the Favorable Experience Dividend (FED) Reserve Account**. This was an increase of $253 million from the prior year.

The market value of assets is not used directly in the calculation of the unfunded actuarial liability (UAL) and actuarial contribution rates. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation. This amount, called the "actuarial value of assets", is equal to the expected asset value, based on the actuarial value in the prior year and the assumed rate of return of 7.5%, plus 25% of the difference between the actual market value and the expected asset value. The resulting value must be no less than 80% of market value and no more than 120% of market value (referred to as a "corridor"). The corridor did not apply this year. The actuarial value of assets as of June 30, 2012 was $23.530 billion, an increase of $955 million from the value in the prior year. The components of change in the asset values are shown in the following table:

	Market Value ($M)		Actuarial Value ($M)	
Net Assets, June 30, 2011	$	**22,772**	$	**22,575**
• Employer and Member Contributions	+	942	+	942
• Benefit Payments and Refunds	-	1,492	-	1,492
• Expected Investment Income, net of expenses (Based on 7.5% assumption)	+	1,688	+	1,673
• Actuarial Gain/(Loss) on Investment Return	+	(885)	+	(168)
Net Assets, June 30, 2012 Before FED Transfer	$	**23,025**	$	**23,530**
• FED Transfer Payable January 15, 2013	-	0	-	0
Net Assets, June 30, 2012 After FED Transfer	$	**23,025**	**$**	**23,530**
• Application of Corridor	-	0	-	0
Final Net Assets, June 30, 2012	**$**	**23,025**	**$**	**23,530**

On a market value basis the time-weighted rate of return, as reported by IPERS, was 3.73%. The dollar-weighted rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was approximately 6.75%.

Please see Exhibits 2 and 3 in Section II of this report for a summary of the market and actuarial value of assets by group (Regular, Special Service 1 and Special Service 2) as of June 30, 2012.



Rates of return on the actuarial value of assets are much smoother than market value returns, illustrating the advantage of using an asset smoothing method.

In last year's valuation, there was $200 million in deferred (unrecognized) investment gain. With the unfavorable investment experience during FY2012 the deferred gain has been eliminated and a deferred loss of about $505 million now exists. The deferred loss will be recognized in the smoothing method in future years.

LIABILITIES

The actuarial liability is that portion of the present value of future benefits that will not be paid by future normal costs. The difference between this liability and the actuarial value of assets at the same date is called the unfunded actuarial liability (UAL). The dollar amount of unfunded actuarial liability is reduced if the contributions to the System exceed the normal cost for the year plus interest on the prior year's UAL.

The unfunded actuarial liability by group is shown as of June 30, 2012 in the following table:

($Millions)	**Regular Membership**	**Special Service 1**	**Special Service 2**	**Total***
Actuarial Liability	$27,852	$503	$1,091	$29,446
Actuarial Value of Assets	22,047	446	1,038	23,530
Unfunded Actuarial Liability*	5,806	57	53	5,916
Funded Ratio	79.2%	88.7%	95.1%	79.9%

*May not add due to rounding.

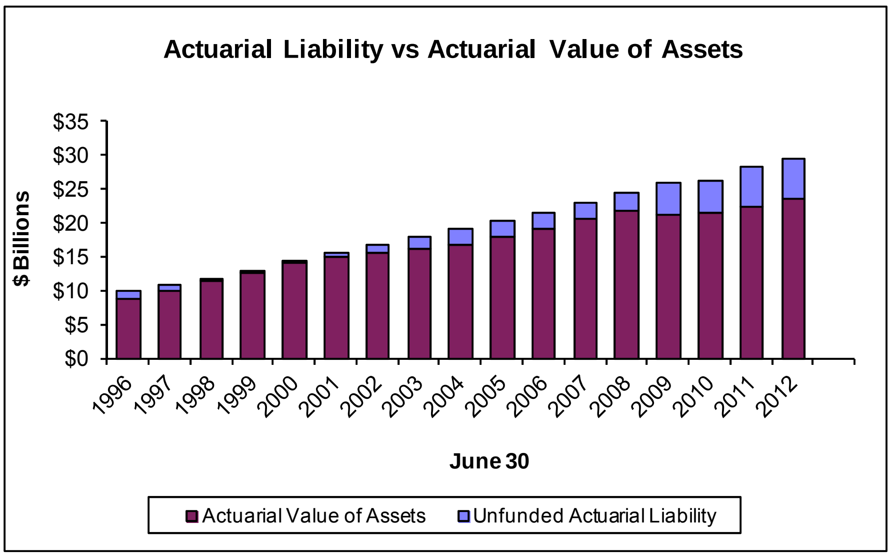
See Exhibit 7 in Section III of the report for the detailed development of the unfunded actuarial liability for each group.

Changes in the UAL occur for various reasons. The net change in the UAL from June 30, 2011 to June 30, 2012 was $234 million. The components of this net change are shown in the table below (in millions):

Unfunded Actuarial Liability, June 30, 2011 ($M)	$ 5,682
• Expected increase from amortization method	110
• Expected increase from contributions below actuarial rate	65
• Investment experience	168
• Liability experience (including transfers)	(109)
• Change in assumptions	0
Unfunded Actuarial Liability before FED transfer, June 30, 2012	$ 5,916
• FED Transfer	0
Unfunded Actuarial Liability after FED transfer, June 30, 2012	$ 5,916

As seen above, various factors impacted the UAL. The two most significant were (1) the increase of $168 million due to investment experience, and (2) the decrease due to liability experience of $109 million.

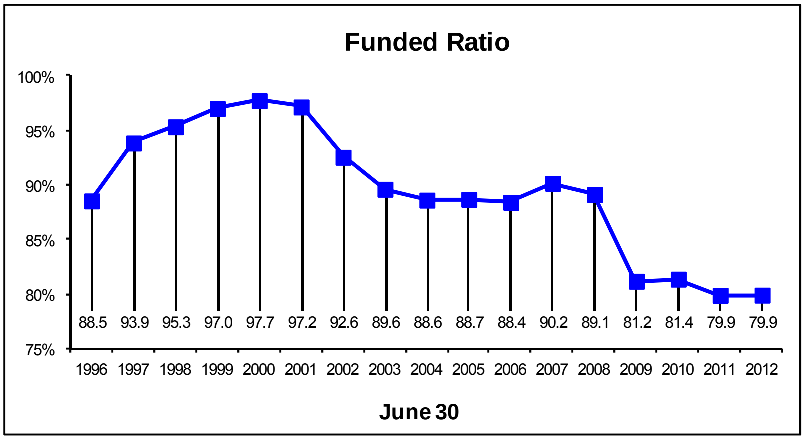
Actuarial gains (losses), which result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions, are reflected in the UAL and are measured as the difference between the expected unfunded actuarial liability and the actual unfunded actuarial liability, taking into account any changes due to actuarial assumptions and methods or benefit provision changes. Overall, the System experienced a net actuarial loss of $59 million. The net actuarial loss may be explained by considering the separate experience of assets and liabilities. As noted earlier, there was a $168 million loss, measured on the actuarial value of assets. There was a liability gain of $109 million which arises from demographic experience more favorable than anticipated by the actuarial assumptions. The liability gain was largely the result of salary increases that were lower than the expected amounts based on the actuarial assumptions.



The dollar amount of the UAL has grown over the past several years due to numerous factors, the most significant of which are the investment loss of 2008 and contributions below the actuarial contribution rate.

An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability, and the progress made in its funding, is to track the funded ratio, the ratio of the actuarial value of assets to the actuarial liability. The funded status information is shown on the next page (in millions).

	6/30/08	6/30/09	6/30/10	6/30/11	6/30/12
Funded Ratio	89.1%	81.2%	81.4%	79.9%	79.9%
Unfunded Actuarial Liability ($M)	$2,665	$4,895	$4,931	$5,682	$5,916



Negative investment experience in FY09 caused a significant drop in the funded ratio, which had been stable at around 90% since 2003. The funded ratio stabilized in 2010 due to a strong investment return in FY10 coupled with changes in the actuarial assumption and benefit reductions. The decline in 2011 is due to an increase in the actuarial liability due to the adoption of a new mortality assumption.

CONTRIBUTION RATE

Under the Entry Age Normal cost method, the actuarial contribution rate consists of two components:

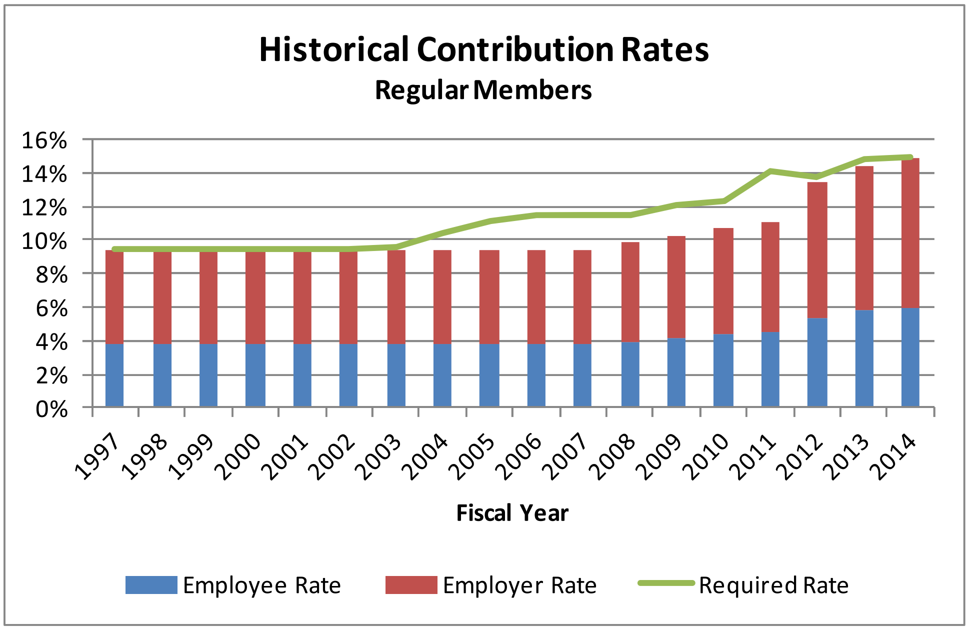
- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date, and
- an "unfunded actuarial liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets on hand.

This valuation calculates the contribution rates effective July 1, 2013 for the year ending June 30, 2014. Regular Members contributed according to scheduled rates in statute prior to the 2011 valuation at which time IPERS was given the authority to set the contribution rate for Regular Members, subject to a maximum increase of 1% per year. This is the first report since the 2000 valuation that reflects a statutory contribution rate that is equal to the actuarial contribution rate. The remaining 5% of the active members, the Special Service Groups, contribute at an actuarially determined rate which changes each year.

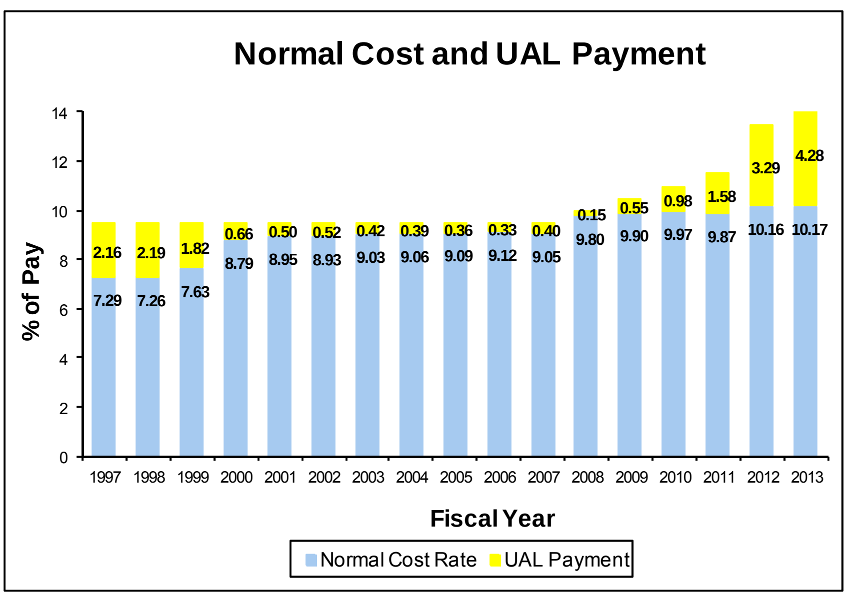
See Exhibits 10 and 11 in Section IV for development of these rates which are summarized in the following table:

Contribution Rate for FY 2014	Regular Membership	Special Service 1	Special Service 2
1. Total Actuarial Contribution Rate	14.88%	19.76%	16.90%
2. Employee Contribution Rate	5.95%	9.88%	6.76%
3. Employer Contribution Rate (1) – (2)	8.93%	9.88%	10.14%
4. Employer Statutory Contribution Rate	8.93%	9.88%	10.14%
5. Shortfall (3) – (4)	0.00%	0.00%	0.00%

In 2006 and 2010, legislation was passed that increased the statutory contribution rate for Regular Members. A historical summary of the actual and required rates is shown in the graph below:



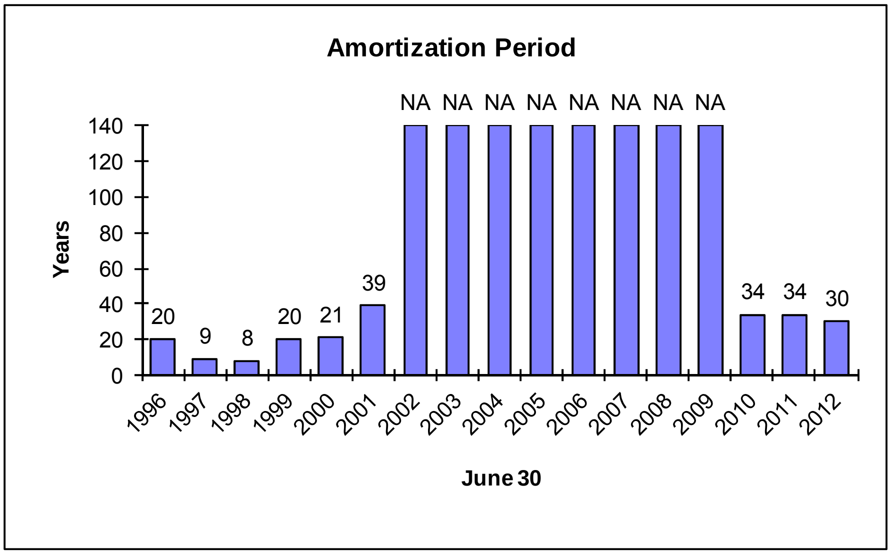
Based on the results of this valuation, the statutory contribution rate for fiscal year ending June 30, 2014 is 14.88%, which is also the actuarial contribution rate. Because the contribution rate for the fiscal year ending June 30, 2013 was 14.45%, the full actuarial contribution rate is reached in FY2014 within the annual statutory limitation of 1%. Because the statutory contribution rate and actuarial contribution rate for the Regular Membership are equal, it indicates that the UAL can be amortized in 30 years at the current contribution rate, if all actuarial assumptions are met in the future.



This graph shows the normal cost rate and the contribution rate available to fund the UAL based on the statutory contribution rate payable in that fiscal year.

For a number of years, only a small portion of the total contribution rate was available to pay down the UAL. With recent contribution increases, that portion has increased, and this year it has reached the level necessary to amortize the UAL in 30 years.

The actuarial contribution rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2012, and applies only for the fiscal year beginning July 1, 2013. The actuarial contribution rate in future years will change each year as the deferred actuarial investment experience is recognized and other experience (both investment and demographic) impacts the System. The statutory contribution rate may change by no more than 1.0% per year.



Based on the statutory contribution rate, the period to amortize the UAL was infinite in the 2002 to 2009 valuations. Due to the increase in the contribution rate beginning in FY12, more funds are available to finance the UAL and the years to amortize is finite. Future investment experience will have a significant impact on the System's funding and the years to amortize the UAL.

SUMMARY

The investment return on the market value of assets for FY2012 was 3.73% as reported by IPERS. Due to this low return, the actuarial value of assets is now greater than the market value of assets and there is a deferred investment loss of $505 million. The System's funded ratio in this valuation remained unchanged at 79.9% from the June 30, 2011 valuation.

As mentioned earlier in this section, the System utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred investment experience. The asset smoothing method impacts only the timing of when the actual market experience is recognized in the valuation process. Despite the fact there were deferred investment gains in the last valuation, the return on the actuarial value of assets was only 6.75% given the return of 3.73% on the market value of assets. The return on actuarial assets of less than 7.5% created the deferred investment loss of $505 million.

The key valuation results from the June 30, 2012 actuarial valuation are shown on the next page, using both actuarial and market value of assets.

Total System	Actuarial Value	Market Value
Actuarial Contribution Rate		
Regular Members		
Normal Cost	10.17%	10.17%
UAL Contribution	4.71%	5.12%
Total Contribution	14.88%	15.29%
UAL ($M)	$ 5,806	$ 6,285
Funded Ratio	79.2%	77.4%
Special Service Group 1		
Normal Cost	16.62%	16.62%
UAL Contribution	3.14%	3.63%
Total Contribution	19.76%	20.25%
UAL ($M)	$ 57	$ 65
Funded Ratio	88.7%	87.0%
Special Service Group 2		
Normal Cost	16.04%	16.04%
UAL Contribution	0.86%	1.17%
Total Contribution	16.90%	17.21%
UAL ($M)	$ 53	$ 71
Funded Ratio	95.1%	93.5%

Both the statutory and the actuarial contribution rate determined in this year's valuation for Regular Members is 14.88%, which is based on an open 30 year amortization period. This contribution rate will apply for FY 2014. Therefore, based on the Actuarial Amortization Method policy set by the Board, the amortization period will move to a closed 30 year period in the June 30, 2014 valuation.

This contribution rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2012, and applies only for the fiscal year beginning July 1, 2013. The actuarial contribution rate in future years will change each year as the deferred actuarial investment experience is recognized and as other experience (both investment and demographic) impacts the System. While the statutory contribution rate can vary each year, the annual change is limited to 1.0%. Therefore, depending on actual experience it is possible that the statutory and actuarial contribution rates might not be equal in future years.

The long-term financial health of this retirement system is heavily dependent on two key items: (1) future investment returns and (2) contributions to the System. Given the System's current funded status, the actuarial contribution rate, and the statutory contribution rate, the System's funded ratio is expected to improve over the long term, assuming all actuarial assumptions are met.

We conclude this executive summary by presenting comparative statistics and actuarial information on both the June 30, 2012 and June 30, 2011 valuations. All figures shown include the Regular Membership and the two Special Service Groups.

SUMMARY OF HISTORICAL CHANGE
IN
IPERS UNFUNDED ACTUARIAL LIABILITY

($Millions)	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Unfunded Actuarial Liability (BOY[1])	390	327	441	1,255	1,867	2,176	2,289	2,507	2,266	2,665	4,895	4,931	5,682
• **Expected Change**													
− **From Amortization Method**	(32)	(22)	3	24	36	42	22	49	44	52	95	96	110
− **Contributions less than Actuarial Rate**				61	87	103	125	118	127	140	248	218	65
• **Investment Experience**	(781)	(81)	409	402	75	(89)	(235)	(622)	5	1,903	666	(66)	168
• **Liability and Other Experience**	515	217	258	125	82	57	242	187	214	135	(185)	(17)	(109)
• **Benefit Enhancements**	142	0	3	0	29	0	0	0	6	0	(674)	0	0
• **Change in Assumptions/Methods**	0	0	141	0	0	0	64	27	3	0	(114)	417	0
• **Change in Actuarial Software**	0	0	0	0	0	0	0	0	0	0	0	103	0
• **FED Transfer**	93	0	0	0	0	0	0	0	0	0	0	0	0
Unfunded Actuarial Liability (EOY[2])	327	441	1,255	1,867	2,176	2,289	2,507	2,266	2,665	4,895	4,931	5,682	5,916
Amortization Years-Regular Members	21	39	*	*	*	*	*	*	*	*	34	34	30

*Infinite
1 = Beginning of Year
2 = End of Year

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
PRINCIPAL RESULTS

	June 30, 2012	June 30, 2011	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Members (excluding Retired/Reemployed)	164,200	164,436	(0.1)
- Projected Payroll for Upcoming Fiscal Year	$6,933M	$6,706M	3.4
- Average Salary	$42,223	$40,782	3.5
2. Inactive Membership			
- Number Not in Pay Status	69,777	65,965	5.8
- Number of Retirees/Beneficiaries	101,677	98,312	3.4
- Average Annual Benefit	$14,441	$13,939	3.6
ASSETS AND LIABILITIES			
1. Net Assets (excluding FED reserve)			
- Market Value	$23,025M	$22,772M	1.1
- Actuarial Value	23,530M	22,575M	4.2
2. Projected Liabilities			
- Retired Members	$14,152M	$13,252M	6.8
- Inactive Members	601M	588M	2.2
- Active Members	20,855M	20,375M	2.4
- Total Liability	$35,608M	$34,215M	4.1
3. Actuarial Liability	$29,446M	$28,257M	4.2
4. Unfunded Actuarial Liability	$5,916M	$5,682M	4.1
5. Funded Ratio			
a. Actuarial Value Assets/Actuarial Liability	79.91%	79.89%	0.0
b. Market Value Assets/Actuarial Liability	78.19%	80.59%	(3.0)
SYSTEM CONTRIBUTIONS			
Statutory Contribution Rate, Regular Members*	14.88%	14.45%	3.0
Employer Contribution Rate	8.93%	8.67%	3.0
Employee Contribution Rate	5.95%	5.78%	2.9
Total Actuarial Contribution Rate	14.88%	14.77%	0.7
Shortfall	0.00%	0.32%	(100.0)

M = ($)Millions
* Contribution rates for Special Service Group 1 are 9.88% for employers, 9.88% for employees
Contribution rates for Special Service Group 2 are 10.14% for employers, 6.76% for employees

SECTION II

SYSTEM ASSETS

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In this section, the values assigned to the assets held by the System are presented. These assets are valued on two different bases: the market value and the actuarial value.

Market Value of Net Assets

For certain accounting statement purposes, System assets are valued at current market prices. These values represent the "snapshot" of the fair value of System assets as of the valuation date.

Actuarial Value of Net Assets

The market value of assets may not necessarily be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

Step 1: Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return on the prior actuarial value of assets and the actual receipts and disbursements of the fund for the previous 12 months.

Step 2: Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.

Step 3: Multiply the difference between market and expected values determined in Step 2 by 25%.

Step 4: Add the expected value of Step 1 and the product of Step 3 to determine the actuarial value of assets.

Step 5: Verify the preliminary actuarial value of assets in Step 4 is not more than 120% of the market value of assets, nor less than 80% of the market value. If it is, adjust the actuarial value of assets so it falls within the 80% - 120% corridor.

EXHIBIT 1

ANALYSIS OF NET ASSETS AT MARKET VALUES

($ Millions)

	June 30, 2012			June 30, 2011		
		Amount	% of Total		Amount	% of Total
Cash & Equivalents	$	314	1.3%	$	204	0.9%
Capital Assets, Receivables and Payables		(579)	(2.5)		(1,187)	(5.1)
Domestic Equity		6,056	26.1		6,297	27.3
International Equity		3,170	13.6		3,474	15.1
Fixed Income		7,828	33.7		8,011	34.7
Real Estate		2,059	8.9		1,774	7.7
Real Assets		1,187	5.1		970	4.2
Private Equity/Debt		2,871	12.4		2,853	12.4
Securities Lending Collateral Pool		338	1.4		686	2.9
TOTAL NET ASSETS	$	23,244	100.0%	$	23,082	100.0%
FED Reserve (Before current year transfer)		(219)			(310)	
Current Year FED Transfer Payable		0			0	
Net Retirement System Assets	$	23,025		$	22,772	

EXHIBIT 2

SUMMARY OF FUND ACTIVITY
(Market Value)

	Regular Membership	Special Service Group 1*	Special Service Group 2**	FED Reserve	Total
NET RETIREMENT SYSTEM ASSETS ON JUNE 30, 2011	$21,365,705,614	$422,854,979	$983,784,058	$309,788,284	$23,082,132,935
REVENUE					
Employer contributions	518,541,696	8,999,273	30,864,449	0	558,405,418
Member contributions	336,791,008	8,999,273	20,586,619	0	366,376,900
Service purchase	16,852,811	217,226	541,658	0	17,611,695
Investment income	810,461,014	16,226,795	37,990,013	9,979,445	874,657,267
Total Revenue	$1,682,646,529	$34,442,567	$89,982,739	$9,979,445	$1,817,051,280
DISBURSEMENTS					
Benefit payments	1,392,015,794	18,733,898	37,998,448	100,428,496	1,549,176,636
Member and employer refunds	37,489,332	958,957	4,879,837	0	43,328,126
Administrative expenses	12,501,308	86,812	376,065	0	12,964,185
Investment expenses	46,492,139	930,851	2,179,299	572,471	50,174,760
Total Expenses	$1,488,498,573	$20,710,518	$45,433,649	$101,000,967	$1,655,643,707
PRELIMINARY NET ASSETS ON JUNE 30, 2012	$21,559,853,570	$436,587,028	$1,028,333,148	$218,766,762	$23,243,540,508
TRANSFERS					
Membership changes	7,611,768	808,584	(8,420,352)	0	0
FED Reserve	0	0	0	0	0
ADJUSTED NET ASSETS ON JUNE 30, 2012	$21,567,465,338	$437,395,612	$1,019,912,796	$218,766,762	$23,243,540,508

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 3

ACTUARIAL VALUE OF NET ASSETS

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
1. Actuarial Value of Assets as of June 30, 2011	$21,187,215,563	$418,118,777	$969,974,859	$22,575,309,199
2. Actual Receipts/Disbursements				
a. Contributions	872,185,515	18,215,772	51,992,726	942,394,013
b. Benefit Payments and Refunds	1,429,505,126	19,692,855	42,878,285	1,492,076,266
c. Net Change	(557,319,611)	(1,477,083)	9,114,441	(549,682,253)
3. Expected Value of Assets as of June 30, 2012 [(1) x 1.075] + [(2c) x (1.075)$^{.5}$]	22,198,415,459	447,946,213	1,052,173,027	23,698,534,699
4. Preliminary Market Value of Assets as of June 30, 2012	21,559,853,570	436,587,028	1,028,333,148	23,024,773,746
5. Difference Between Market and Expected Values (4) - (3)	(638,561,889)	(11,359,185)	(23,839,879)	(673,760,953)
6. Preliminary Actuarial Value of Assets as of June 30, 2012 (3) + [(5) x 25%]	22,038,774,987	445,106,417	1,046,213,057	23,530,094,461
7. Transfers				
a. Membership changes	7,778,822	826,330	(8,605,152)	0
b. FED Reserve	0	0	0	0
8. Initial Actuarial Value of Assets as of June 30, 2012	$22,046,553,809	$445,932,747	$1,037,607,905	$23,530,094,461
9. Determination of Corridor				
a. 80% of Market Value of Assets	17,253,972,270	349,916,490	815,930,237	18,419,818,997
b. 120% of Market Value of Assets	25,880,958,406	524,874,734	1,223,895,355	27,629,728,495
10. Final Actuarial Value of Assets as of June 30, 2012 (8), but not less than (9a), nor greater than (9b)	22,046,553,809	445,932,747	1,037,607,905	23,530,094,461

* Includes Sheriffs and Deputies

** Includes all other public safety members

EXHIBIT 4

HISTORICAL COMPARISON (ACTUARIAL AND MARKET)

Value as of June 30		Actuarial Value of Net Assets (AVA)	Market Value of Net Assets (MVA)	AVA/MVA
1996		$8,975,396,251	$9,587,104,982	94%
1997		10,112,976,077	11,533,968,923	88%
1998	*	11,352,674,142	13,463,899,832	84%
1999	*	12,664,031,437	14,814,311,451	85%
2000	*	14,145,141,535	16,473,516,141	86%
2001		15,112,424,729	15,357,519,356	98%
2002		15,613,114,099	14,387,799,637	109%
2003		16,120,476,011	14,915,941,546	108%
2004		16,951,942,539	16,726,227,853	101%
2005		17,951,490,071	18,224,067,613	99%
2006		19,144,036,519	19,847,676,903	96%
2007		20,759,628,415	22,624,387,015	92%
2008		21,857,423,183	21,844,112,206	100%
2009		21,123,979,941	17,603,316,618	120%
2010		21,537,458,560	19,538,971,423	110%
2011		22,575,309,199	22,772,344,651	99%
2012		23,530,094,461	23,024,773,746	102%

Values are for combined regular membership and Special Service Groups, but exclude the Favorable Experience Dividend Reserve Account.

*Reflects reduction for transfers to the Favorable Experience Dividend Reserve Account.

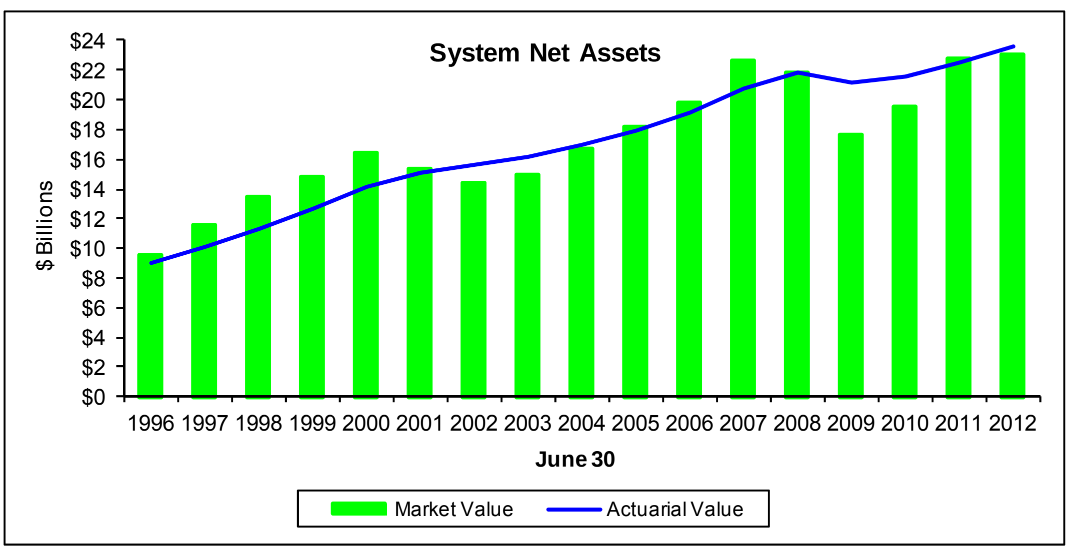

EXHIBIT 5

SUMMARY OF FAVORABLE EXPERIENCE DIVIDEND RESERVE

Market Value of FED Reserve as of June 30, 2012	$	218,766,762
Transfer to FED Payable on January 15, 2013 Based on June 30, 2012 Valuation Results	$	0
Total Value of FED Reserve as of June 30, 2012	$	218,766,762

Payments to retirees from the FED Reserve Account are not a guaranteed benefit. The System Administration determines each year whether payments will be made and the percentage multiplier factor to be used for each year of retirement, up to the maximum 3% allowed by law. Factors considered by the Administration in this determination include, but are not limited to, the current value of the FED Reserve Account, past year payments from the reserve, the likelihood of future credits to and payments from the reserve, and distributions paid as a dividend under 97B.49F(1).

Based on the June 30, 2012 balance in the FED reserve and assuming (1) a 7.5% rate of return on the market value of assets in the future and (2) all other assumptions are exactly met, the FED reserve is projected to be depleted after making payments through the dates shown below.

Estimated Potential Payments (in millions) from the FED on January 31:

	Maximum*	Expected**
2013	$228.2 ***	$111.6
2014	-	125.4 ***
2015	-	-
2016	-	-
2017	-	-
2018	-	-
2019	-	-
2020	-	-

* Based on the maximum payment of 3% for each year since retirement.
** Based on 1.07% for each year since retirement.
*** Payment is equal to the remaining FED reserve balance.

SECTION III

SYSTEM LIABILITIES

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SECTION III

SYSTEM LIABILITIES

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods used to allocate the cost of benefits to members' working lifetimes. These mathematical techniques are called actuarial cost methods.

The method used for this valuation is referred to as the "entry age normal" actuarial cost method. In general, under this method, a contribution that is a level percent of rates of pay is determined for each member, which if paid from date of hire to retirement date, will finance all future benefit payments. The level percent of pay that is developed is called the **"normal cost"**. The sum of the individual normal cost dollar amounts is divided by covered payroll to determine the normal cost rate for the System.

The actuarial liability is that portion of the present value of future benefits (PVFB) that will not be paid by the normal costs in future years. The difference between this liability and the actuarial value of assets as of the same date is referred to as the **unfunded actuarial liability (UAL).** If contributions exceed the normal cost for the year, after allowing for interest on the previous balance of the UAL, this liability will be reduced. Benefit changes, experience gains and losses, and changes in actuarial assumptions or procedures will also have an effect on the total actuarial liability and on the portion of it that is unfunded.

The UAL is projected to the following year to reflect the time lag from the valuation date to the date the contribution rates are effective and is then amortized according to the Actuarial Amortization Method adopted by the Investment Board.

Effective with the June 30, 2008 valuation, a transfer of assets is performed as of June 30th for all employees whose membership group changed since the prior valuation. The purpose behind the transfer is to better match the assets and liabilities for each membership group by having both the assets and liabilities for each member reside in their current membership group. When employees move between membership groups, an asset transfer for valuation purposes is made based on the funded ratio of their former group prior to the transfer. The asset transfer calculation is determined by multiplying the actuarial liability of the employee transferring by the funded ratio of their former group just prior to the transfer. The asset values after the transfers and the liabilities for the employees reside in their current membership group and are used to prepare the final valuation results.

A summary of the number of employees who transferred is shown below:

From	To		
	Regular	SS1	SS2
Regular		8	78
SS1	5		9
SS2	131	20	

The impact on the UAL from the transfer is shown below:

Regular	SS1	SS2
$91,817	$252,922	$76,174

EXHIBIT 6

PRESENT VALUE OF FUTURE BENEFITS
as of June 30, 2012

The actuarial present value of future benefits represents the current value of benefits expected to ultimately be earned by the current members of the System as of the valuation date.

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
Present Value of Future Benefits:				
Active Members				
Retirement benefits	$17,756,388,837	$386,952,989	$963,355,035	$19,106,696,861
Death benefits	199,755,258	4,999,231	23,877,101	228,631,590
Termination benefits	850,324,146	32,627,610	141,828,397	1,024,780,153
Disability benefits	434,483,458	11,453,843	49,118,622	495,055,923
Inactive Members				
Vested members	531,296,578	7,473,635	21,773,134	560,543,347
Nonvested members	39,650,733	130,169	991,354	40,772,256
Retired Members and Beneficiaries	13,573,602,957	195,188,608	383,175,993	14,151,967,558
Total Present Value of Future Benefits	$33,385,501,967	$638,826,085	$1,584,119,636	$35,608,447,688

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 7

UNFUNDED ACTUARIAL LIABILITY
as of June 30, 2012

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
1. Present Value of Future Benefits	$33,385,501,967	$638,826,085	$1,584,119,636	$35,608,447,688
2. Present Value of Future Normal Costs	5,533,116,514	136,109,255	493,024,433	6,162,250,202
3. Actuarial Liability (1) - (2)	$27,852,385,453	$502,716,830	$1,091,095,203	$29,446,197,486
4. Actuarial Value of Net Assets	22,046,553,809	445,932,747	1,037,607,905	23,530,094,461
5. Unfunded Actuarial Liability (3) - (4)	$5,805,831,644	$56,784,083	$53,487,298	$5,916,103,025
6. Funded Ratio (4) / (3)	79.2%	88.7%	95.1%	79.9%

* Includes Sheriffs and Deputies

** Includes all other public safety members

EXHIBIT 8

CALCULATION OF ACTUARIAL (GAIN)/LOSS AND ANY TRANSFER TO THE FAVORABLE EXPERIENCE DIVIDEND RESERVE
Based on the June 30, 2012 Actuarial Valuation

The Favorable Experience Dividend (FED) reserve account was created by legislation in 1998. The main purpose of the account is to help offset the negative impact of postretirement inflation for members who retired after June 30, 1990. The law provided that a portion of the favorable actuarial experience, if any, in subsequent years would be transferred to the FED reserve. Legislation passed in 2000 capped the FED reserve at ten years of expected payouts at the maximum level. Further legislation in 2006 prohibited further transfers to the FED until the System has no remaining UAL. The System has a UAL so no transfer is to be made this year.

1. June 30, 2011 Unfunded Actuarial Liability	$	5,681,770,915
2. Normal Cost as of June 30, 2011		657,798,912
3. Employer and Employee Contributions*		924,782,318
4. Change due to membership transfers		420,913
5. Change due to plan provision changes		0
6. Change due to assumptions and method revisions		0
7. Expected Unfunded Actuarial Liability as of June 30, 2012 $[(1)+(2)] * 1.075 - [(3) * (1.075)^{.5}] + (4) + (5) + (6)$		5,856,623,762
8. Actual Unfunded Actuarial Liability as of June 30, 2012		5,916,103,025
9. (Gain)/loss (8) - (7)		59,479,263
10. Portion of gain to transfer to FED		N/A
11. Amount of Actuarial Value of Assets to transfer to FED	$	0
12. Market value of FED transfer	$	0

* Does not include service purchases

SECTION IV

SYSTEM CONTRIBUTIONS

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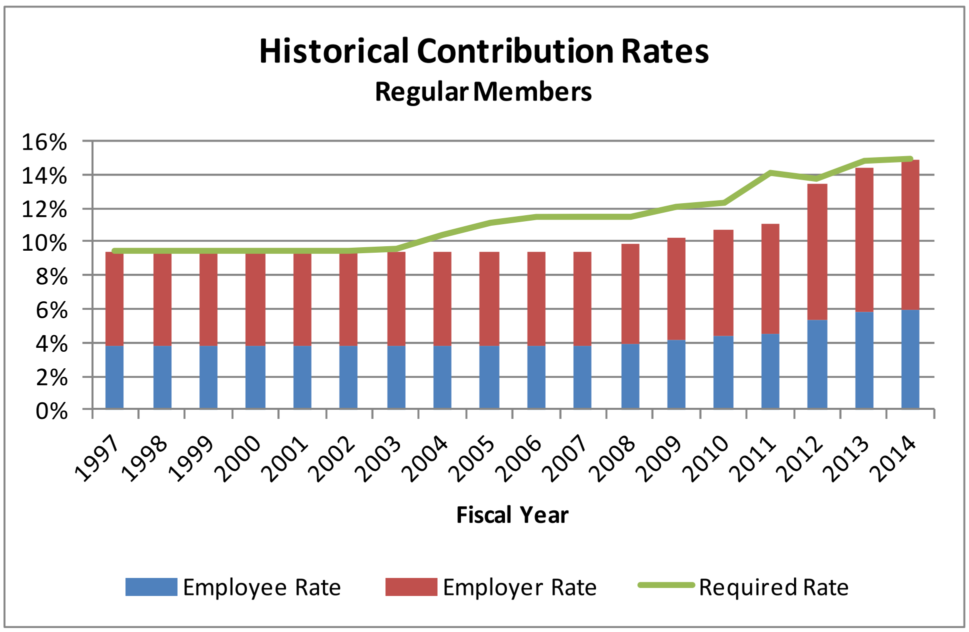
Under the funding method described in Appendix C, the contribution rate consists of two elements:

(1) the normal cost rate and
(2) the contribution rate to amortize the unfunded actuarial liability as a level percent of payroll

The unfunded actuarial liability represents the difference between the portion of the present value of future benefits allocated to service credited prior to the valuation date by the actuarial cost method and the actuarial value of assets as of that date.

In 2006 and 2010, legislation was passed that increased the statutory contribution rate for Regular Members. A historical summary of the actual and required rates is shown in the table below:



Effective with the June 30, 2008 valuation, a transfer of assets is performed on June 30th for all split service members (those members with service in more than one membership group) whose membership group changed since the prior valuation. In addition, IPERS also transfers assets for certain split service members who have not changed groups since the last valuation. As a result, all assets and liabilities for each member reside in their current membership group. When members move between membership groups, an asset transfer for valuation purposes is made based on the funded ratio of their former group prior to the transfer. The asset transfer calculation is determined by multiplying the actuarial liability of the members transferring by the funded ratio of their former group just prior to the transfer. The asset values after the transfers and the liabilities for the members reside in their current membership group and are used to prepare the final valuation results.

EXHIBIT 9

ACTUARIAL BALANCE SHEET
as of June 30, 2012

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
ASSETS				
Actuarial value of assets	$22,046,553,809	$445,932,747	$1,037,607,905	$23,530,094,461
Present value of future normal costs	5,533,116,514	136,109,255	493,024,433	6,162,250,202
Present value of future contributions to amortize unfunded actuarial liability	5,805,831,644	56,784,083	53,487,298	5,916,103,025
Total Net Assets	$33,385,501,967	$638,826,085	$1,584,119,636	$35,608,447,688
LIABILITIES				
Present Value of Future Benefits:				
Retired Members and Beneficiaries	$13,573,602,957	$195,188,608	$383,175,993	$14,151,967,558
Active Members	19,240,951,699	436,033,673	1,178,179,155	20,855,164,527
Inactive Members	570,947,311	7,603,804	22,764,488	601,315,603
Total Liabilities	$33,385,501,967	$638,826,085	$1,584,119,636	$35,608,447,688

* Includes Sheriffs and Deputies

** Includes all other public safety members

EXHIBIT 10

ANALYSIS OF CONTRIBUTION RATE FOR REGULAR MEMBERSHIP

The actuarial cost method used to determine the required level of annual contributions by the employees and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability payment. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll, based on the Actuarial Amortization Method adopted by the Investment Board. For the June 30, 2012 actuarial valuation, the amortization period remains an open 30 year period.

The contribution rate developed in this exhibit is based on the June 30, 2012 actuarial valuation and applies to the fiscal year beginning July 1, 2013 and ending June 30, 2014. The statutory contribution rate for that period is 14.88%.

		Regular Membership
1. FYE 2013 Contribution Rate		14.45%
2. Normal Cost Rate		10.17%
3. Contribution Rate Applied to Fund the UAL for FYE 2013 (1) - (2)		4.28%
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2012	$	5,805,831,644
5. Expected Payroll for FYE 2013	$	6,510,458,147
6. Projected UAL on June 30, 2013 [(4) x 1.075] - [(3) x (5) x $1.075^{.5}$]	$	5,952,361,027
7. Amortization Period to Fund the UAL/Surplus		30 years
8. Amortization Factor (Level % of Pay)		19.33574
9. UAL Contribution Adjusted to Mid-year of FYE 2014 [(6) / (8)] x $(1.075)^{.5}$	$	319,177,816
10. Expected Payroll for FYE 2014 (5) x 1.04	$	6,770,876,473
11. UAL Contribution Rate for FYE 2014 (9) / (10)		4.71%
12. Actuarial Contribution Rate for FYE 2014 (2) + (11)		14.88%
13. Statutory Contribution Rate for FYE 2014		14.88%
Employer Contribution Rate		8.93%
Employee Contribution Rate		5.95%
14. Amortization Period Necessary to Finance UAL as a Level Percent of Payroll with Contribution Rate of 14.88%		30 years

EXHIBIT 11

CALCULATION OF CONTRIBUTION RATES FOR SPECIAL SERVICE GROUPS

The actuarial cost method used to determine the actuarial contribution rate to be paid by the employees and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate plus the unfunded actuarial liability payment. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll, based on the Actuarial Amortization Method adopted by the Investment Board. For the June 30, 2012 actuarial valuation, the amortization period is a closed 30 year period (first valuation with a closed period).

The contribution rate developed in this exhibit is based on the June 30, 2012 actuarial valuation and applies to the fiscal year beginning July 1, 2013 and ending June 30, 2014.

	Special Service Group 1*		Special Service Group 2**	
1. FYE 2013 Contribution Rate	19.80%		17.11%	
2. Normal Cost Rate	16.62%		16.04%	
3. Contribution Rate Applied to Fund the UAL (1) - (2)	3.18%		1.07%	
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2012	$ 56,784,083		$ 53,487,298	
5. Expected Payroll for FYE 2013	$ 95,211,027		$ 322,053,005	
6. Projected UAL on June 30, 2013 [(4) x 1.075] - [(3) x (5) x $1.075^{.5}$]	$ 57,903,692		$ 53,925,991	
7. Amortization Period to Fund the UAL/Surplus	30 years		30 years	
8. Amortization Factor (Level % of Pay)	19.33574		19.33574	
9. UAL Contribution Adjusted to Mid-year FYE 2014 [(6) / (8)] x $(1.075)^{.5}$	$ 3,104,915		$ 2,891,622	
10. Expected Payroll for FYE 2014 (5) x 1.04	$ 99,019,468		$ 334,935,125	
11. UAL Contribution Rate for FYE 2014 (9) / (10)	3.14%		0.86%	
12. Actuarial Contribution Rate for FYE 2014 (2) + (11)	19.76%		16.90%	
Employer Contribution Rate	9.88%	(50%)	10.14%	(60%)
Employee Contribution Rate	9.88%	(50%)	6.76%	(40%)

* Includes Sheriffs and Deputies
** Includes all other public safety members

SECTION V

PLAN ACCOUNTING INFORMATION

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GASB Statement No. 25, as amended by GASB Statement No. 50, establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.

- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

EXHIBIT 12

SUMMARY OF VALUATION MEMBERSHIP

	June 30, 2012	June 30, 2011
Active Employees:		
Vested	131,586	126,471
Not yet vested	32,614	37,965
Total active employees*	164,200	164,436
Retirees and beneficiaries currently receiving benefits:	101,677	98,312
Inactive vested members entitled to benefits but not yet receiving them:	29,119	29,077
Inactive, nonvested members entitled to a refund of contributions**	40,658	36,888

*Retired/reemployed members are included in retiree counts, but not the active count. Counts are 8,265 for 2012 and 8,321 for 2011.

** Includes deceased vested inactive members with employee contributions still held by the System.

EXHIBIT 13

SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Actuarial Valuation Date	Net Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (P/R) (c)	UAL as a Percentage of Covered P/R [(b-a)/c]
6/30/07	$20,759,628,415	$23,026,113,782	$2,266,485,367	90.16%	$5,781,706,199	39.20%
6/30/08	21,857,423,183	24,522,216,589	2,664,793,406	89.13%	6,131,445,367	43.46%
6/30/09	21,123,979,941	26,018,593,823	4,894,613,882	81.19%	6,438,643,124	76.02%
6/30/10	21,537,458,560	26,468,419,650	4,930,961,090	81.37%	6,571,182,005	75.04%
6/30/11	22,575,309,199	28,257,080,114	5,681,770,915	79.89%	6,574,872,719	86.42%
6/30/12	23,530,094,461	29,446,197,486	5,916,103,025	79.91%	6,786,158,720	87.18%

Actuarial Assumptions: See Appendix C

EXHIBIT 14

SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Employer Annual Required Contribution (ARC) is determined based on GASB Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans*. The dollar amount of the ARC is calculated by dividing the contributions paid by the Regular Membership for the fiscal year by the statutory contribution rate to determine covered payroll for the year. The covered payroll is then multiplied by the actuarial contribution rate including the normal cost and the amortization of the UAL from the actuarial valuation two years prior (the June 30, 2010 valuation sets the ARC for FY12). The resulting dollar amount of ARC for the Regular Membership is added to the actual contributions paid by the Special Service 1 and the Special Service 2 employers to determine the total ARC for the fiscal year.

	Actuarially Required Contributions (ARC)				Percentage of ARC Contributed			
Fiscal Year Ending	**Regular Membership**	**Special Service Group 1***	**Special Service Group 2****	**Total**	**Regular Membership**	**Special Service Group 1***	**Special Service Group 2****	**Total**
6/30/07	387,578,925	6,577,652	17,723,013	411,879,590	82.2%	100.0%	100.0%	83.3%
6/30/08	408,882,080	6,301,171	17,644,966	432,828,217	86.4%	100.0%	100.0%	87.2%
6/30/09	441,951,764	6,365,911	24,736,688	473,054,363	86.9%	100.0%	100.0%	87.8%
6/30/10	467,839,274	6,725,778	27,328,184	501,893,236	88.7%	100.0%	100.0%	89.5%
6/30/11	530,692,453	7,994,058	29,711,050	568,397,561	81.1%	100.0%	100.0%	82.3%
6/30/12	528,525,785	8,999,273	30,864,449	568,389,507	98.1%	100.0%	100.0%	98.2%

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 15

EXPECTED BENEFIT PAYMENTS

The following chart shows the expected benefit payments to be made over the next 20 years. These payments include those expected to be made to current retirees and beneficiaries, current active members, and current deferred vested members (included in the active values) if all actuarial assumptions are met in future years. The benefits reflected include expected refunds and death benefits as well as annuity payments.

These payouts do not include any current nonvested inactive members, any future members, or any FED payments.

Fiscal Year End	Actives at 6/30/12	Retirees at 6/30/12	Total
2013	$ 129,464,000	$ 1,464,261,000	$ 1,593,725,000
2014	262,737,000	1,440,400,000	1,703,137,000
2015	398,242,000	1,415,053,000	1,813,295,000
2016	532,991,000	1,388,435,000	1,921,426,000
2017	668,911,000	1,360,052,000	2,028,963,000
2018	803,671,000	1,330,311,000	2,133,982,000
2019	938,274,000	1,299,094,000	2,237,368,000
2020	1,076,662,000	1,266,516,000	2,343,178,000
2021	1,214,156,000	1,232,169,000	2,446,325,000
2022	1,351,785,000	1,196,670,000	2,548,455,000
2023	1,489,423,000	1,160,123,000	2,649,546,000
2024	1,624,941,000	1,122,559,000	2,747,500,000
2025	1,758,565,000	1,083,710,000	2,842,275,000
2026	1,891,707,000	1,043,589,000	2,935,296,000
2027	2,024,620,000	1,002,237,000	3,026,857,000
2028	2,155,740,000	959,709,000	3,115,449,000
2029	2,284,952,000	916,072,000	3,201,024,000
2030	2,412,574,000	871,410,000	3,283,984,000
2031	2,538,318,000	825,837,000	3,364,155,000
2032	2,661,412,000	779,488,000	3,440,900,000

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

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RECONCILIATION OF ACTIVE MEMBERS

Below is a summary of the changes in active members (excluding retired reemployed members) between June 30, 2011 and June 30, 2012.

	Regular	Special Service Groups		
	Membership	Group 1	Group 2	Total
6/30/2011 Starting count	155,984	1,523	6,929	164,436
New actives	13,559	34	466	14,059
Returning actives	2,684	18	117	2,819
Nonvested Terminations	(4,856)	(3)	(146)	(5,005)
Elected Refund	(2,973)	(11)	(170)	(3,154)
Vested Terminations	(4,005)	(13)	(138)	(4,156)
Total Withdrawals	(11,834)	(27)	(454)	(12,315)
Deaths	(160)	(1)	(7)	(168)
Disability Retirements	(103)	(3)	(5)	(111)
AE Benefits	(362)	0	(4)	(366)
Service Retirements	(4,627)	(26)	(111)	(4,764)
Total Retirements	(5,092)	(29)	(120)	(5,241)
Other/transfer	659	12	(61)	610
6/30/2012 Ending count	155,800	1,530	6,870	164,200

HISTORICAL SUMMARY OF MEMBERS

The following table displays selected historical data (including regular and both Special Service groups) as available.

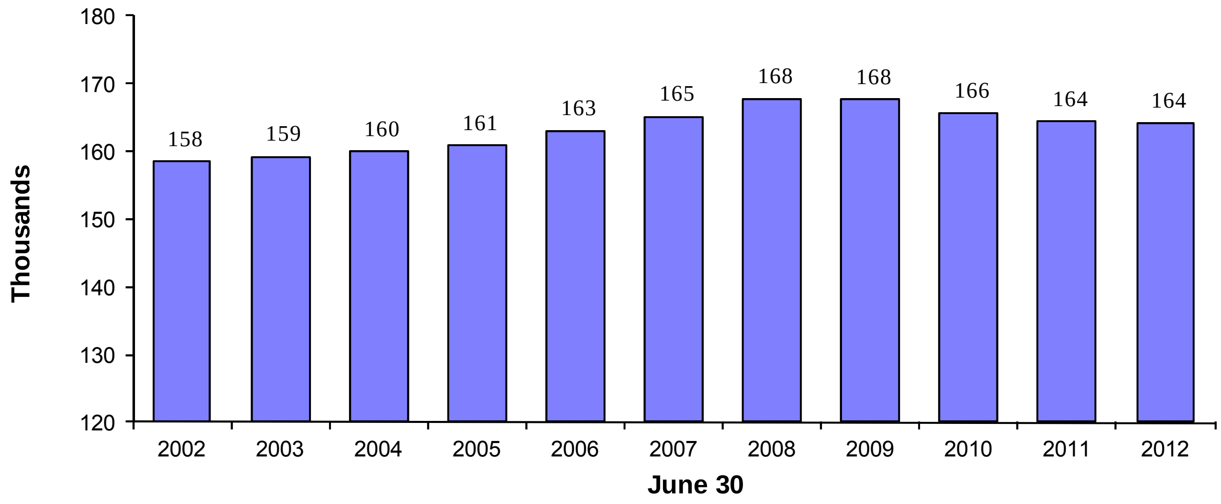
Valuation Date June 30	Total Count	Number	Average Age	Average Entry Age	Average Service	Average Annual Pay ($)	Average % Change	Number Retired Reemployed	Number Inactive Vested	Number Retired	Active/Retired Ratio
1991	206,105	135,104	43.7			21,885				49,881	2.71
1992	207,860	134,485	44.3			22,510	2.9%			51,247	2.62
1993	211,862	136,409	43.9			22,604	0.4%			54,212	2.52
1994	216,989	141,423	44.2			22,968	1.6%			54,295	2.60
1995	216,973	144,912	44.1			23,322	1.5%			56,353	2.57
1996	221,891	147,431	44.2			25,218	8.1%			57,914	2.55
1997	224,357	147,736	44.6	33.1	11.5	26,031	3.2%		28,377	59,320	2.49
1998	241,767	148,917	44.7	33.2	11.5	26,767	2.8%		31,202	61,648	2.42
1999	250,168	152,440	44.8	33.4	11.4	27,322	2.1%	4,853	34,332	63,396	2.40
2000	249,970	153,039	44.8	33.2	11.6	29,032	6.3%	5,050	31,219	65,712	2.33
2001	255,963	154,610	45.0	33.5	11.5	30,341	4.5%	4,886	32,650	68,703	2.25
2002	264,974	158,467	45.1	33.8	11.3	32,119	5.9%	5,387	34,792	71,715	2.21
2003	268,813	159,310	45.2	33.8	11.4	31,950	-0.5%	6,126	35,375	74,128	2.15
2004	272,573	160,003	45.4	33.8	11.6	33,082	3.5%	6,438	35,788	76,782	2.08
2005	267,214	160,876	45.6	33.8	11.8	34,066	3.0%	6,592	26,919	79,419	2.03
2006	271,007	163,052	45.7	34.0	11.7	35,475	4.1%	8,044	25,918	82,037	1.99
2007	276,421	165,216	45.7	34.0	11.7	36,615	3.2%	7,848	26,435	84,770	1.95
2008	282,778	167,823	45.7	34.1	11.6	38,515	5.2%	8,523	27,626	87,309	1.92
2009	294,076	167,691	46.0	34.2	11.8	40,326	4.7%	8,427	28,240	89,718	1.87
2010	287,611	165,626	46.0	34.1	11.9	40,635	0.8%	8,347	28,472	93,513	1.77
2011	291,825	164,436	45.8	34.1	11.7	40,782	0.4%	8,321	29,077	98,312	1.67
2012	294,996	164,200	45.8	34.2	11.6	42,223	3.5%	8,265	29,119	101,677	1.61

Note: Retired count includes retired reemployed members.

SUMMARY OF ACTIVE MEMBERS

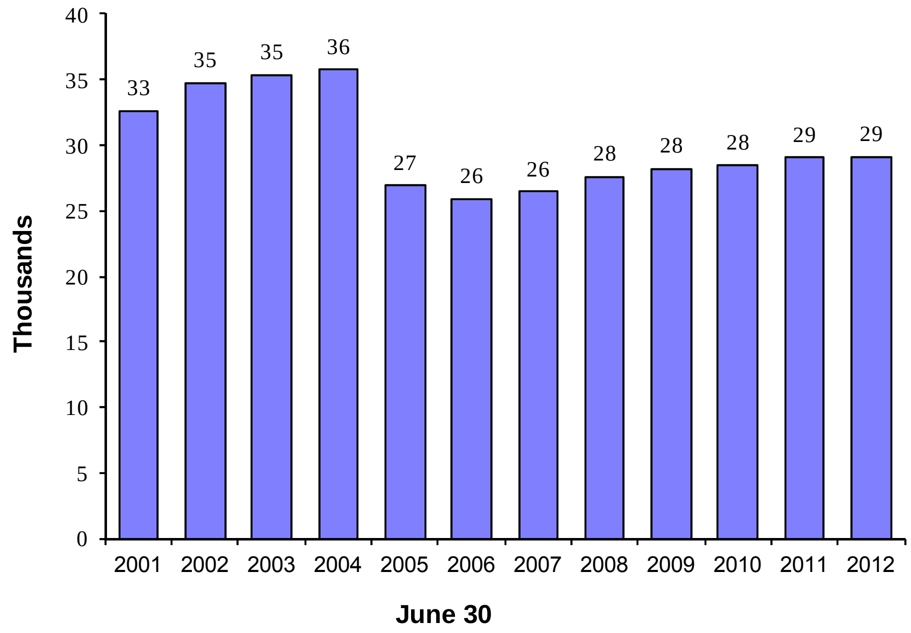
	Regular Membership	Special Service Groups Group 1	Group 2	Total 6/30/2012	Total 6/30/2011	Percent Change
Total Active Members	155,800	1,530	6,870	164,200	164,436	(0.1)
Projected Covered Payroll* (millions)	$6,516	$96	$321	$6,933	$6,706	3.4
Average Age	46.0	41.8	42.0	45.8	45.8	0.0
Average Entry Age	34.3	26.9	31.1	34.1	34.1	0.0
Average Earnings	$41,820	$62,996	$46,732	$42,223	$40,782	3.5
Retired Reemployed	8,089	68	108	8,265	8,321	(0.7)

*Payroll figures as of June 30 are actual amounts paid during the prior fiscal year, increased by the assumed salary increase factor for the upcoming fiscal year.



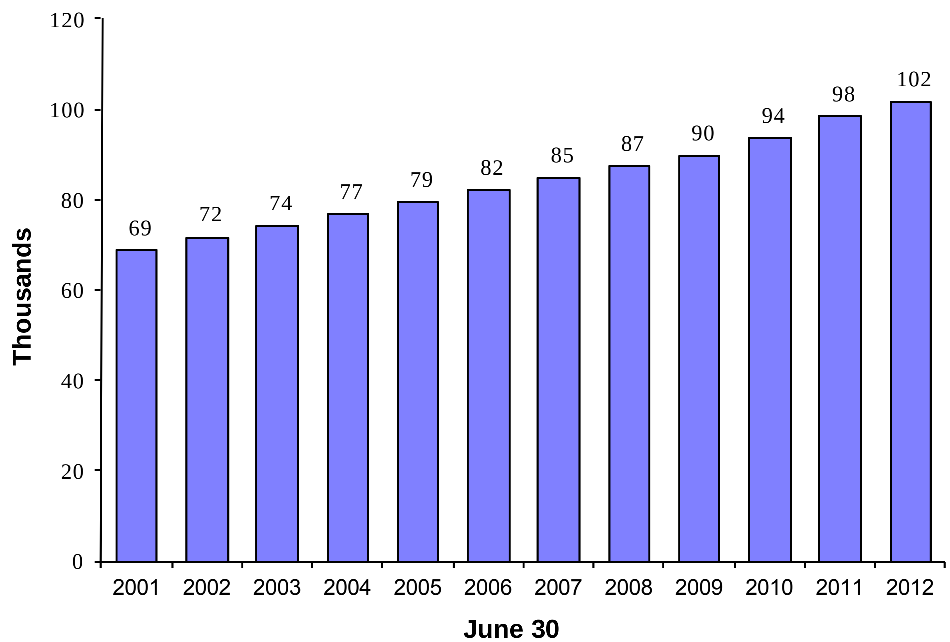
SUMMARY OF INACTIVE VESTED MEMBERS

Regular	Special Service		Total	Total	Percent
Membership	Group 1	Group 2	6/30/2012	6/30/2011	Change
28,427	96	596	29,119	29,077	0.1%



SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES

Regular Membership	Special Service Group 1	Special Service Group 2	Total 6/30/2012	Total 6/30/2011	Percent Change
99,324	671	1,682	101,677	98,312	3.4%



AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR ACTIVE MEMBERS*

Males and Females - Regular Membership

Years of Service

	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	5,713	15,960	87	23,177	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	5,800	16,069
25-29	9,696	28,754	2,844	38,664	47	34,520	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	12,587	31,014
30-34	6,413	29,636	6,951	43,457	1,895	47,942	14	42,430	0	NA	0	NA	0	NA	0	NA	0	NA	15,273	38,209
35-39	5,366	28,504	4,052	41,973	4,783	52,090	1,204	55,341	16	43,628	0	NA	0	NA	0	NA	0	NA	15,421	41,470
40-44	5,131	26,276	4,270	37,578	3,872	47,934	4,031	57,665	1,010	58,948	12	42,216	0	NA	1	59,916	0	NA	18,327	42,202
45-49	4,446	25,649	4,201	33,242	3,948	41,332	2,995	50,794	3,212	60,420	1,112	59,782	34	50,813	0	NA	0	NA	19,948	41,672
50-54	3,905	25,984	3,818	33,318	4,373	37,596	3,617	43,639	2,942	53,182	3,349	61,879	2,012	57,841	109	54,906	0	NA	24,125	42,984
55-59	3,826	23,940	3,003	32,089	3,416	37,032	3,289	41,982	3,113	47,945	2,545	56,859	2,866	62,585	1,276	60,239	29	54,718	23,363	42,988
60-64	4,107	17,388	2,454	27,863	2,111	36,483	2,071	42,228	2,154	46,089	1,624	52,034	1,021	58,803	1,146	66,334	330	60,781	17,018	37,851
65-69	2,457	11,669	1,635	17,449	820	28,763	547	34,093	433	41,135	310	46,018	193	49,110	126	54,081	141	67,746	6,662	23,620
70 & over	2,601	13,803	1,743	11,819	733	11,959	178	14,367	39	26,207	24	24,038	23	35,869	10	34,879	14	50,481	5,365	13,290
Totals	53,661	24,056	35,058	34,951	25,998	41,952	17,946	47,720	12,919	52,491	8,976	57,739	6,149	59,816	2,668	62,253	514	62,069	163,889	37,986

*Including retired/reemployed members

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR ACTIVE MEMBERS*

Males and Females - Special Service Group 1

Years of Service

	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	32	40,917	1	44,780	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	33	41,034
25-29	93	48,591	58	54,366	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	151	50,809
30-34	45	48,986	125	56,009	60	60,370	1	46,087	0	NA	0	NA	0	NA	0	NA	0	NA	231	55,730
35-39	21	49,783	49	54,290	131	60,336	44	60,619	1	62,629	0	NA	0	NA	0	NA	0	NA	246	58,290
40-44	17	49,145	40	56,437	71	60,623	108	63,353	33	62,865	0	NA	0	NA	0	NA	0	NA	269	60,646
45-49	10	45,718	15	56,280	28	58,835	59	63,142	93	65,595	42	68,157	1	58,946	0	NA	0	NA	248	63,291
50-54	7	33,421	2	82,699	29	61,668	29	61,523	36	64,641	43	66,267	24	76,819	2	83,907	0	NA	172	64,883
55-59	17	29,559	6	56,399	6	63,737	9	64,562	25	64,675	28	63,403	27	65,626	22	66,957	0	NA	140	60,296
60-64	20	18,568	10	35,121	1	65,544	6	54,718	14	61,579	8	66,431	7	60,945	14	69,355	1	88,912	81	49,339
65-69	3	9,655	6	22,632	3	30,245	0	NA	1	72,098	0	NA	0	NA	2	66,178	0	NA	15	30,663
70 & over	2	2,170	9	26,654	1	15,766	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	12	21,666
Totals	267	43,116	321	53,557	330	60,062	256	62,400	203	64,609	121	66,271	59	69,510	40	68,605	1	88,912	1,598	57,927

*Including retired/reemployed members

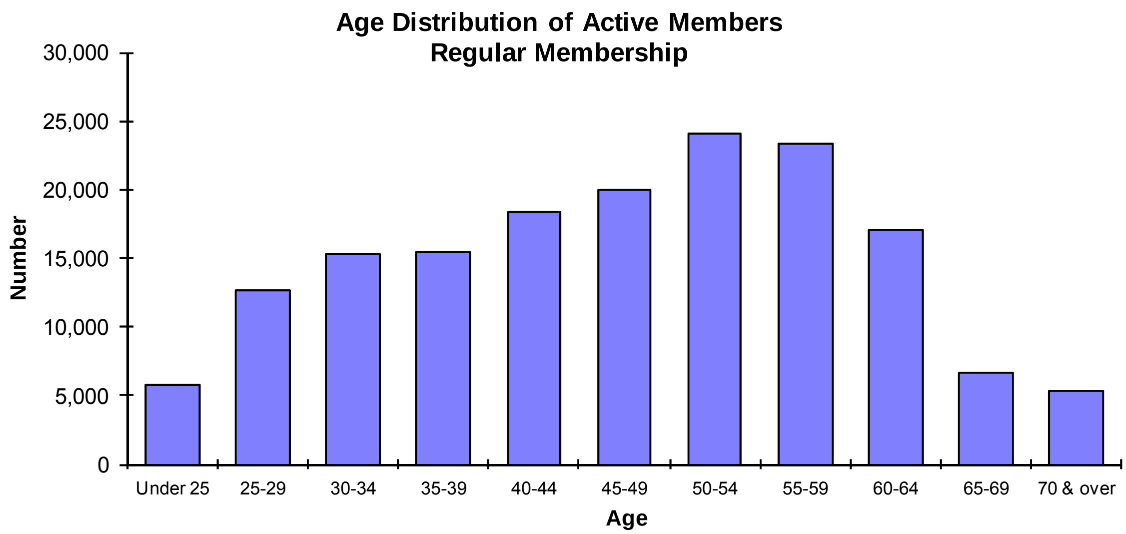
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR ACTIVE MEMBERS*

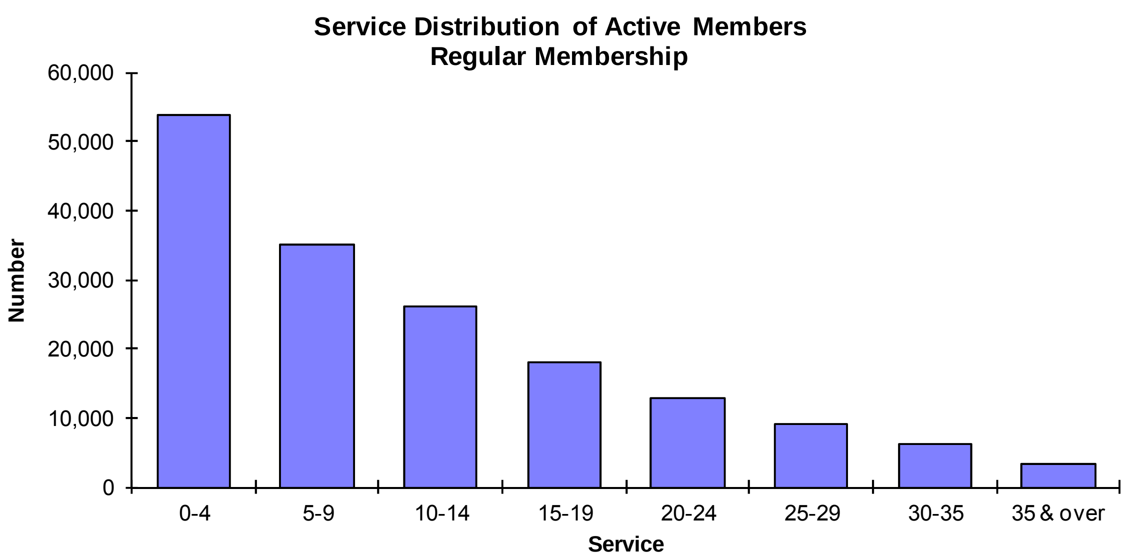
Males and Females - Special Service Group 2

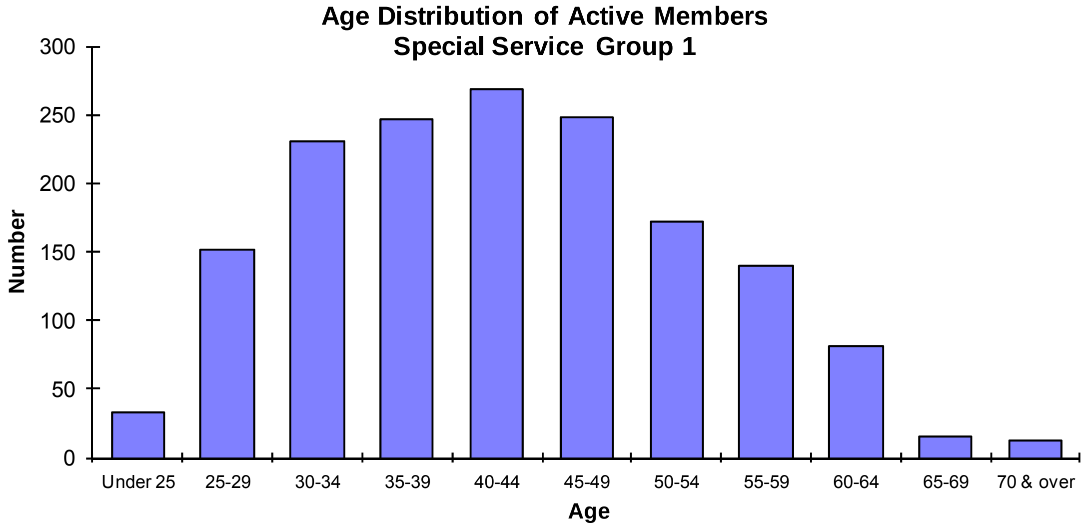
Years of Service

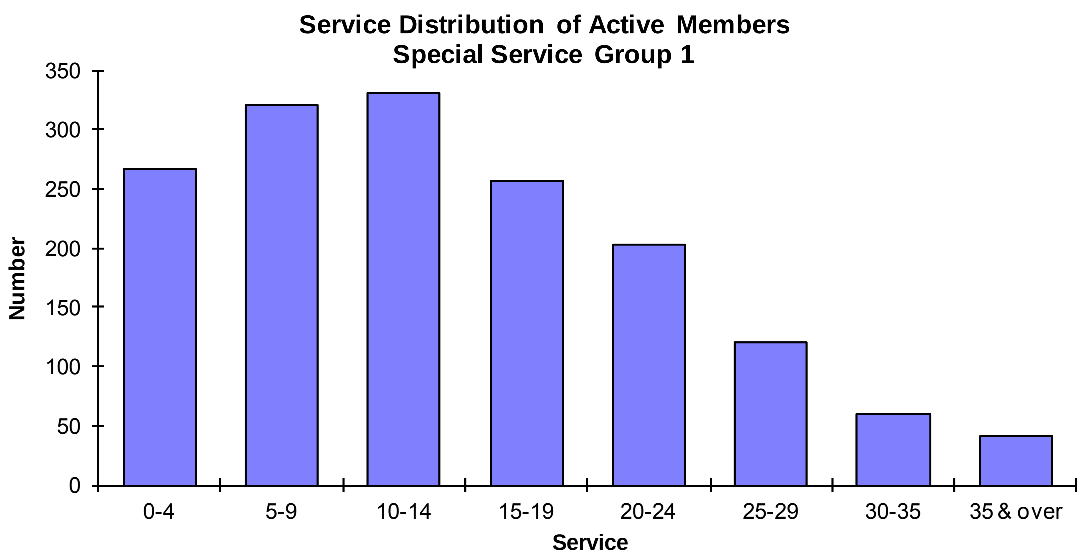
Age	0 to 4 No.	0 to 4 Avg. Salary	5 to 9 No.	5 to 9 Avg. Salary	10 to 14 No.	10 to 14 Avg. Salary	15 to 19 No.	15 to 19 Avg. Salary	20 to 24 No.	20 to 24 Avg. Salary	25 to 29 No.	25 to 29 Avg. Salary	30 to 34 No.	30 to 34 Avg. Salary	35 to 39 No.	35 to 39 Avg. Salary	40 and over No.	40 and over Avg. Salary	Total No.	Total Avg. Salary
Under 25	301	24,540	6	29,443	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	307	24,635
25-29	568	33,104	234	42,745	1	69,618	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	803	35,959
30-34	400	30,510	393	44,622	140	47,953	5	52,876	0	NA	0	NA	0	NA	0	NA	0	NA	938	39,145
35-39	255	31,006	263	42,536	293	51,121	84	52,776	0	NA	0	NA	0	NA	0	NA	0	NA	895	43,023
40-44	212	31,882	228	38,414	256	49,531	239	57,360	63	57,791	2	47,931	0	NA	0	NA	0	NA	1,000	45,643
45-49	154	30,872	177	39,693	193	50,795	169	54,204	160	59,371	57	62,984	1	62,041	0	NA	0	NA	911	48,184
50-54	105	32,239	147	37,244	182	49,352	148	52,004	117	56,866	161	60,331	109	64,297	4	58,095	0	NA	973	50,510
55-59	81	28,225	112	40,465	136	48,145	116	52,248	72	49,603	69	57,589	67	64,647	24	61,749	0	NA	677	48,427
60-64	50	22,517	73	36,554	72	50,921	60	54,462	41	46,322	18	57,030	23	61,798	19	59,829	4	75,401	360	45,872
65-69	27	12,909	19	28,624	14	46,663	10	37,761	8	48,901	2	52,585	2	56,453	1	58,093	0	NA	83	31,213
70 & over	17	27,571	7	17,313	4	5,848	2	32,293	1	902	0	NA	0	NA	0	NA	0	NA	31	21,896
Totals	2,170	30,151	1,659	41,005	1,291	49,665	833	54,063	462	55,533	309	59,885	202	64,040	48	60,608	4	75,401	6,978	43,410

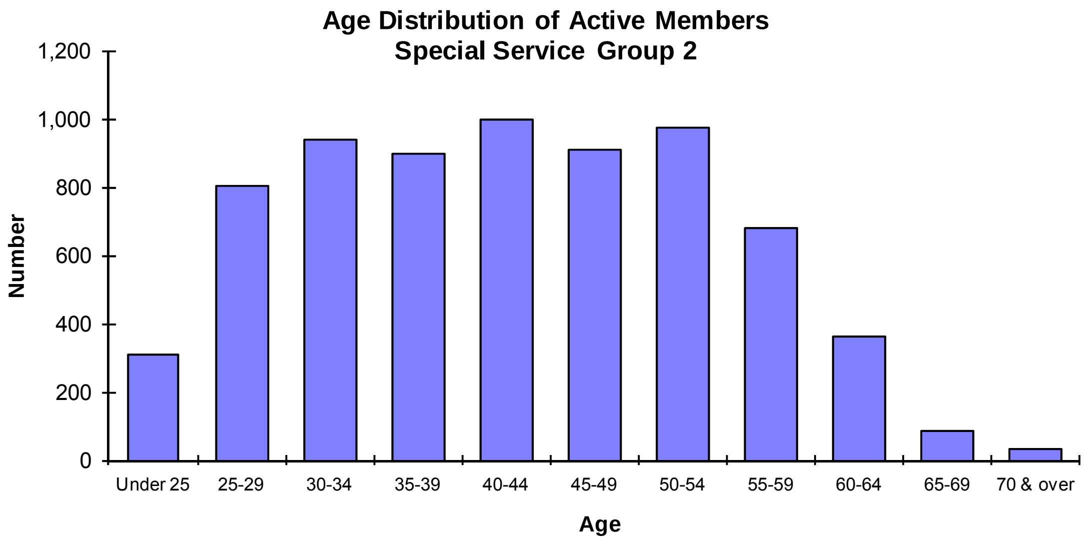
*Including retired/reemployed members

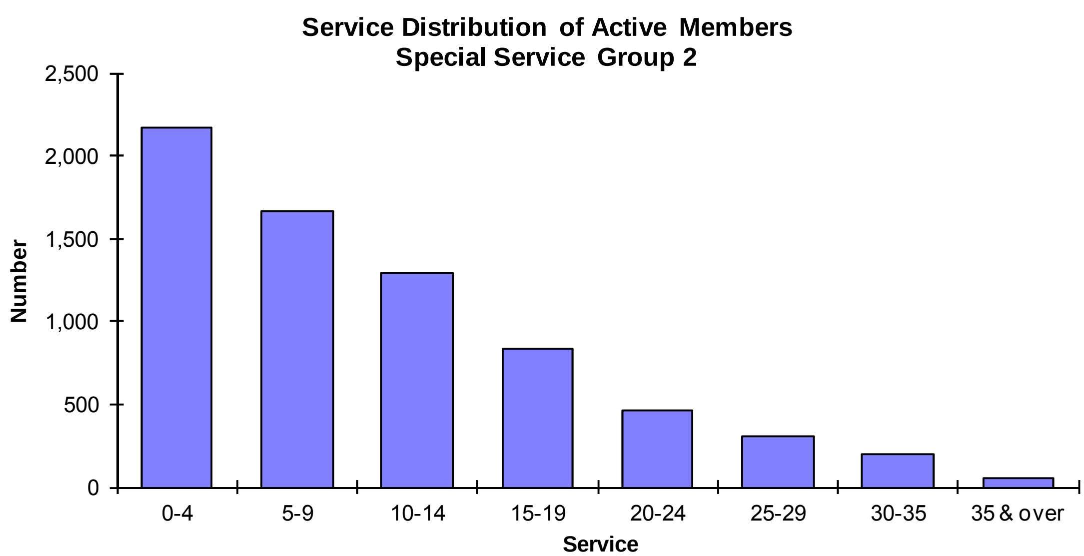

Age Distribution of Active Members
Regular Membership
30,000
25,000
20,000
15,000
10,000
5,000
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Regular Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Service Group 1
Number
300
250
200
150
100
50
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Service Group 1
Number
350
300
250
200
150
100
50
0
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Service Group 2
Number
1,200
1,000
800
600
400
200
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Service Group 2
Number
2,500
2,000
1,500
1,000
500
0
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR INACTIVE VESTED MEMBERS

Males and Females - Regular Membership

Years of Service

	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.
Under 25	0	NA	41	9,652	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	41	9,652
25-29	0	NA	514	21,103	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	514	21,103
30-34	0	NA	1,521	27,144	58	30,013	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1,579	27,249
35-39	0	NA	1,741	26,073	286	35,324	17	26,808	0	NA	0	NA	0	NA	0	NA	0	NA	2,044	27,374
40-44	0	NA	1,990	24,090	489	31,863	120	40,416	9	40,369	0	NA	0	NA	0	NA	0	NA	2,608	26,355
45-49	0	NA	2,387	20,512	700	27,093	256	35,766	103	40,763	11	31,022	0	NA	0	NA	0	NA	3,457	23,620
50-54	0	NA	2,941	18,833	1,159	23,952	537	31,531	270	38,329	83	38,743	30	49,393	2	41,073	0	NA	5,022	22,941
55-59	775	11,650	2,730	17,421	1,125	21,201	521	27,064	237	33,291	68	38,230	20	41,899	5	43,665	0	NA	5,481	19,355
60-64	1,799	10,033	1,698	15,706	650	19,345	278	22,582	103	30,890	31	30,641	5	48,885	1	28,170	1	72,295	4,566	14,903
65-69	1,363	7,721	655	9,918	166	11,826	62	16,335	21	25,216	6	39,387	4	28,731	2	15,399	0	NA	2,279	9,174
70 & over	525	5,877	245	7,363	52	5,321	6	4,865	4	11,244	2	20,349	2	31,647	0	NA	0	NA	836	6,393
Totals	4,462	9,119	16,463	20,211	4,685	24,080	1,797	29,390	747	35,552	201	36,734	61	44,958	10	35,944	1	72,295	28,427	20,270

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR INACTIVE VESTED MEMBERS

Males and Females - Special Service Group 1

Years of Service

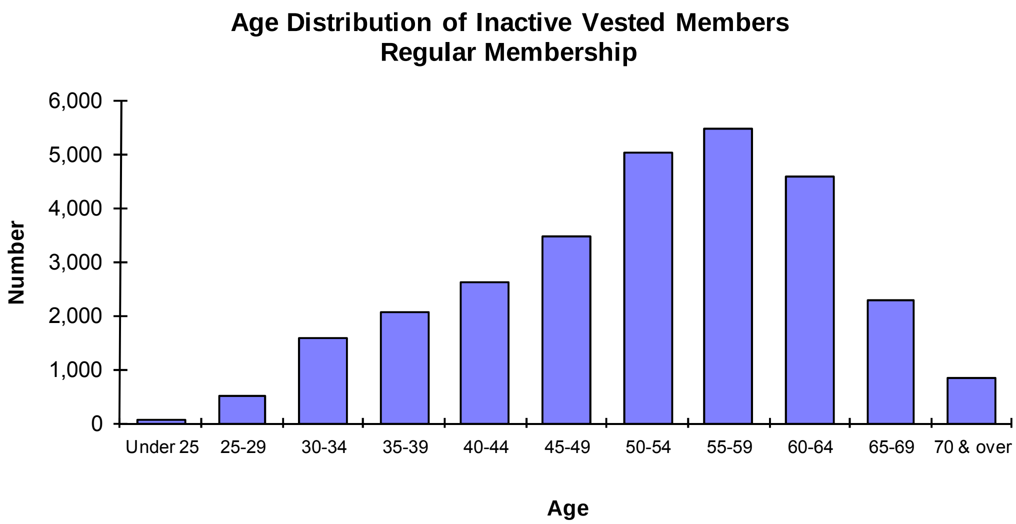
Age	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.
Under 25	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
25-29	0	NA	1	40,930	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	40,930
30-34	0	NA	13	40,972	1	62,237	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	14	42,491
35-39	0	NA	13	42,800	5	30,001	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	18	39,244
40-44	0	NA	4	31,497	7	44,153	2	55,963	1	47,462	0	NA	0	NA	0	NA	0	NA	14	42,461
45-49	0	NA	7	39,698	2	35,073	5	51,053	3	47,691	1	82,257	0	NA	0	NA	0	NA	18	46,035
50-54	0	NA	4	37,079	6	36,861	4	40,701	0	NA	1	53,933	0	NA	0	NA	0	NA	15	39,081
55-59	3	2,919	4	20,042	2	33,947	3	25,622	1	36,391	0	NA	0	NA	0	NA	0	NA	13	20,775
60-64	1	5,903	1	32,279	0	NA	0	NA	0	NA	1	43,822	0	NA	0	NA	0	NA	3	27,335
65-69	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	4	3,665	47	38,183	23	38,283	14	43,347	5	45,385	3	60,004	0	NA	0	NA	0	NA	96	38,579

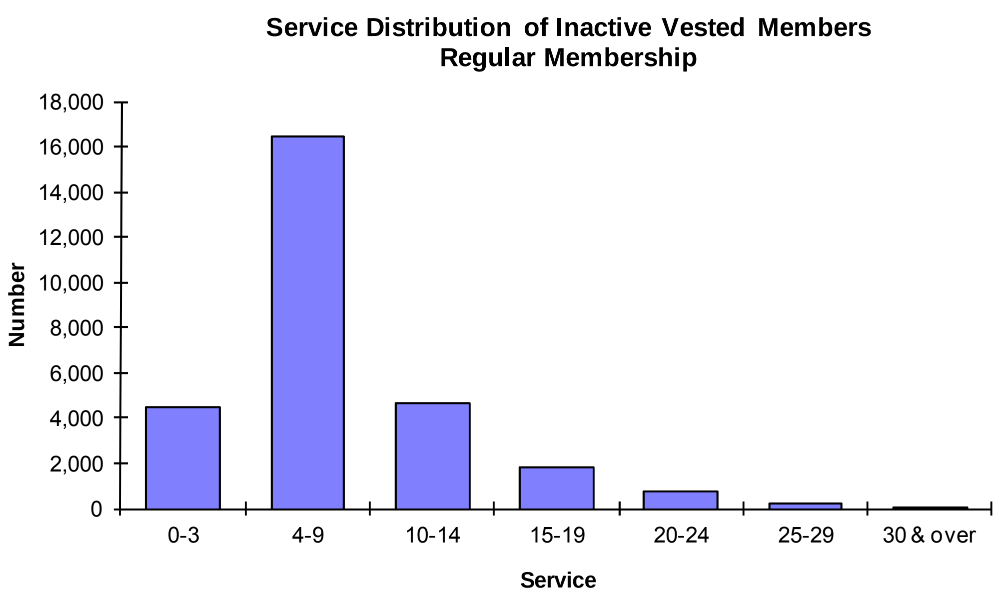
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2012 FOR INACTIVE VESTED MEMBERS

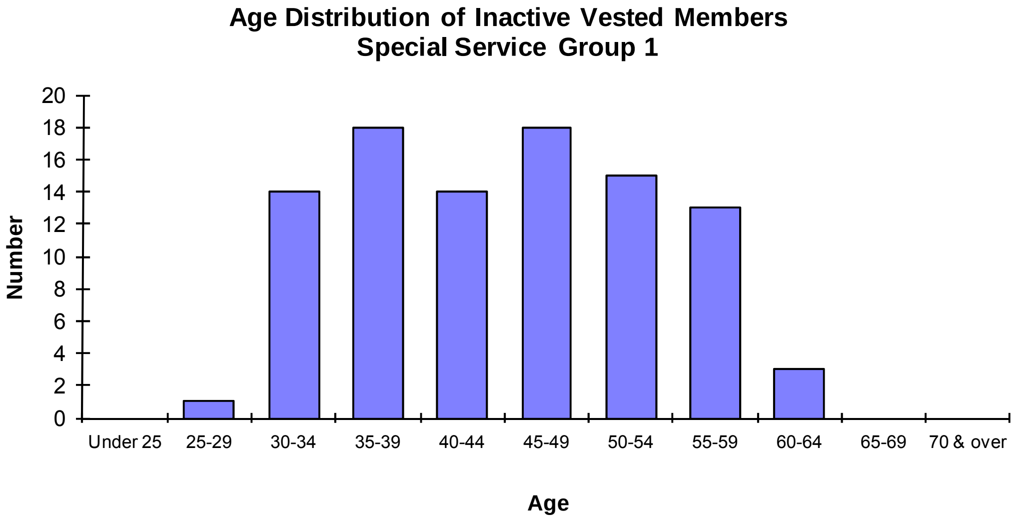
Males and Females - Special Service Group 2

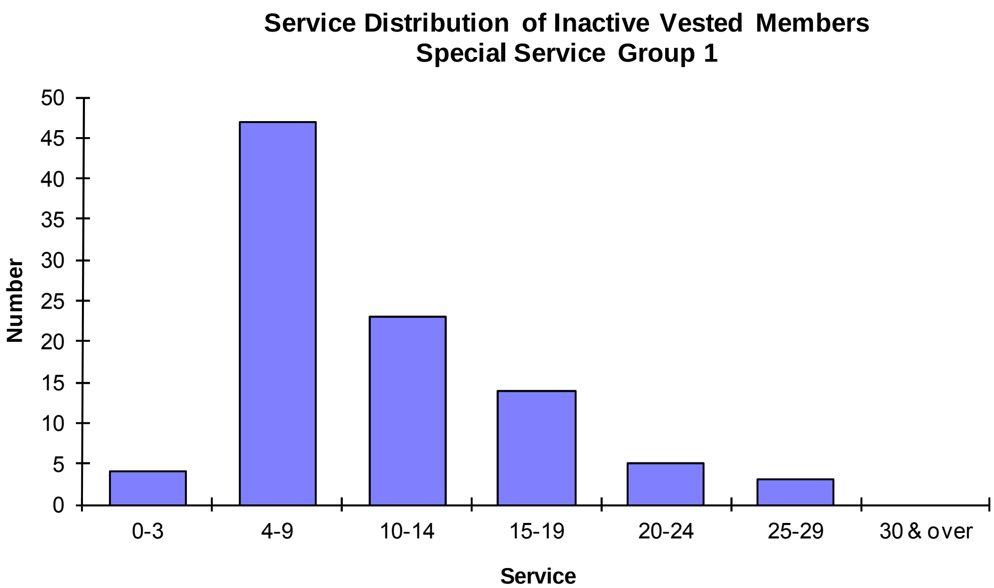
Years of Service

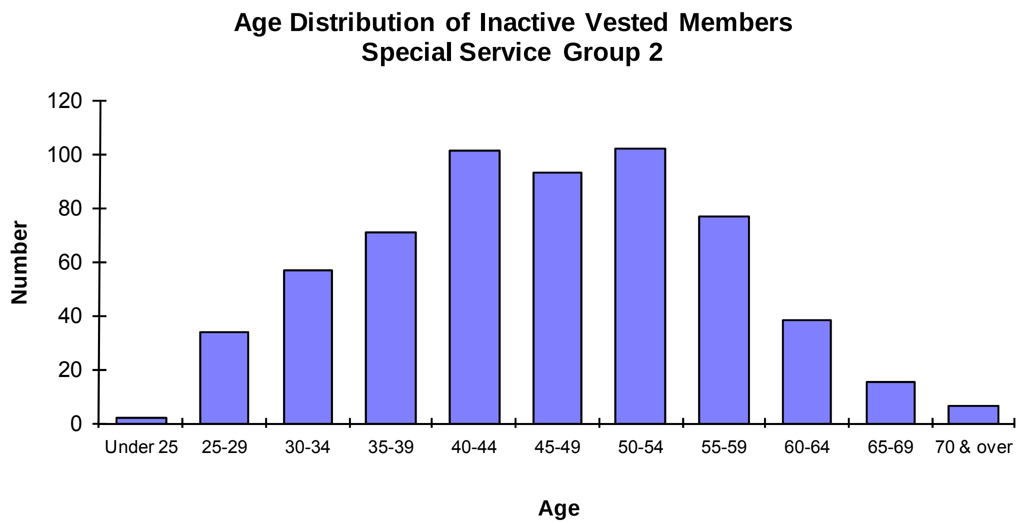
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.	No.	Avg. Sal.
Under 25	0	NA	2	4,180	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	2	4,180
25-29	0	NA	34	27,365	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	34	27,365
30-34	0	NA	54	22,953	3	20,496	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	57	22,823
35-39	0	NA	58	15,447	12	33,363	1	1,831	0	NA	0	NA	0	NA	0	NA	0	NA	71	18,283
40-44	0	NA	69	17,805	23	28,217	7	33,478	2	47,300	0	NA	0	NA	0	NA	0	NA	101	21,846
45-49	0	NA	45	13,688	29	25,167	11	26,504	5	36,518	3	48,905	0	NA	0	NA	0	NA	93	21,147
50-54	0	NA	54	17,375	21	28,500	17	23,486	3	31,829	4	54,888	3	63,050	0	NA	0	NA	102	23,924
55-59	21	17,628	29	8,737	14	19,526	5	36,540	2	36,895	2	25,827	4	28,574	0	NA	0	NA	77	17,135
60-64	15	9,347	9	3,689	5	13,033	7	8,649	0	NA	1	50,421	0	NA	1	7,369	0	NA	38	9,392
65-69	10	15,446	4	11,235	1	1,229	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	15	13,375
70 & over	3	2,970	2	2,131	0	NA	1	325	0	NA	0	NA	0	NA	0	NA	0	NA	6	2,250
Totals	49	13,750	360	17,202	108	25,731	49	23,889	12	37,206	10	46,834	7	43,350	1	7,369	0	NA	596	20,204

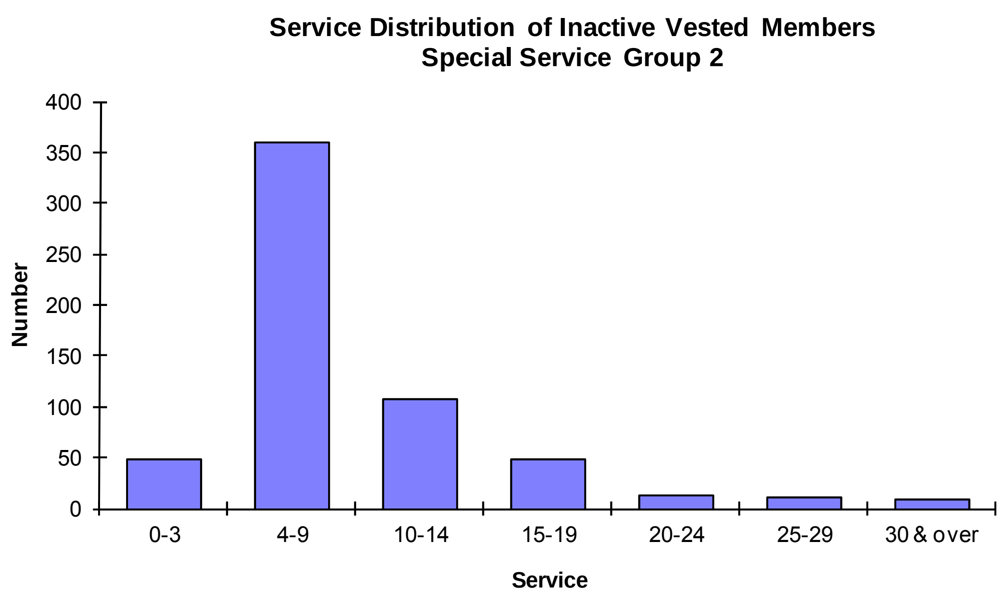

Age Distribution of Inactive Vested Members
Regular Membership
Number
6,000
5,000
4,000
3,000
2,000
1,000
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Regular Membership
Number
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Service Group 1
Number
20
18
16
14
12
10
8
6
4
2
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Service Group 1
Number
50
45
40
35
30
25
20
15
10
5
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Service Group 2
Number
120
100
80
60
40
20
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Service Group 2
Number
400
350
300
250
200
150
100
50
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service

ANALYSIS OF RETIREES AND BENEFICIARIES

Males and Females - Regular Membership

	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chpt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	6	1	4	4	34	1	3	7	60	$6,816
40 to 44	0	14	12	1	6	20	2	7	3	65	6,620
45 to 49	0	36	19	7	9	38	3	13	5	130	8,471
50 to 54	0	120	36	35	24	85	15	34	5	354	9,570
55 to 59	0	1,258	1,177	755	452	186	320	1,450	7	5,605	21,328
60 to 64	0	3,568	3,578	2,544	1,180	357	1,308	4,168	24	16,727	21,762
65 to 69	0	4,796	4,597	3,271	1,720	499	1,839	4,195	41	20,958	17,592
70 to 74	0	4,690	3,787	2,771	2,136	620	1,928	1,857	21	17,810	13,532
75 to 79	0	4,257	3,151	1,866	2,393	807	1,836	341	20	14,671	10,564
80 to 84	0	3,418	2,700	1,178	1,677	807	1,263	60	7	11,110	7,814
85 to 89	0	2,232	2,019	757	842	624	778	1	2	7,255	5,783
90 to 94	0	711	1,419	295	295	255	514	2	0	3,491	4,925
95 to 99	2	40	553	85	49	46	178	0	0	953	4,226
100 & up	1	1	93	17	1	4	18	0	0	135	3,402
Counts	3	25,147	23,142	13,586	10,788	4,382	10,003	12,131	142	99,324	$14,136
% of Total	0.0%	25.3%	23.3%	13.7%	10.9%	4.4%	10.1%	12.2%	0.1%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

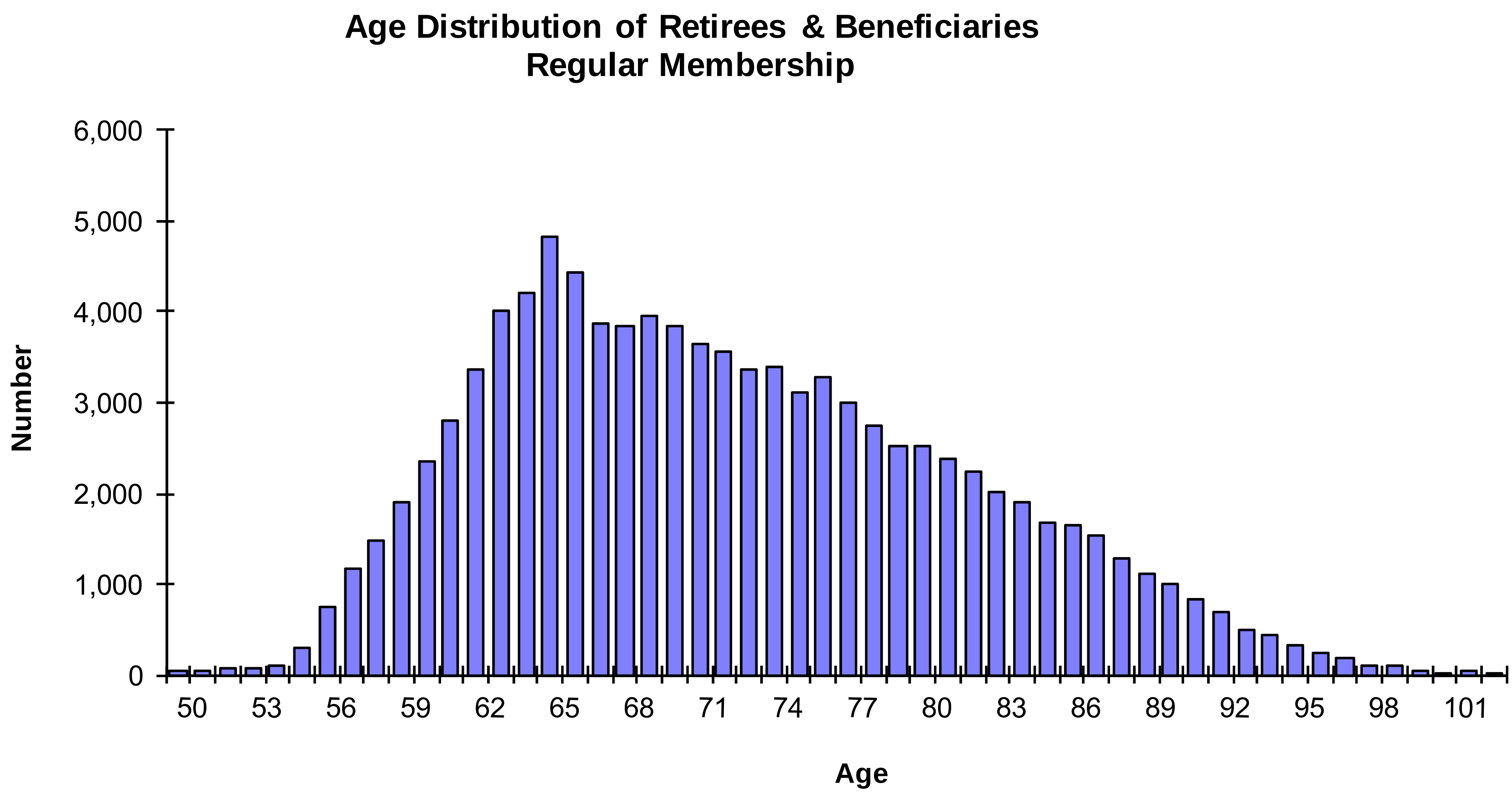
Males and Females - Special Service Group 1

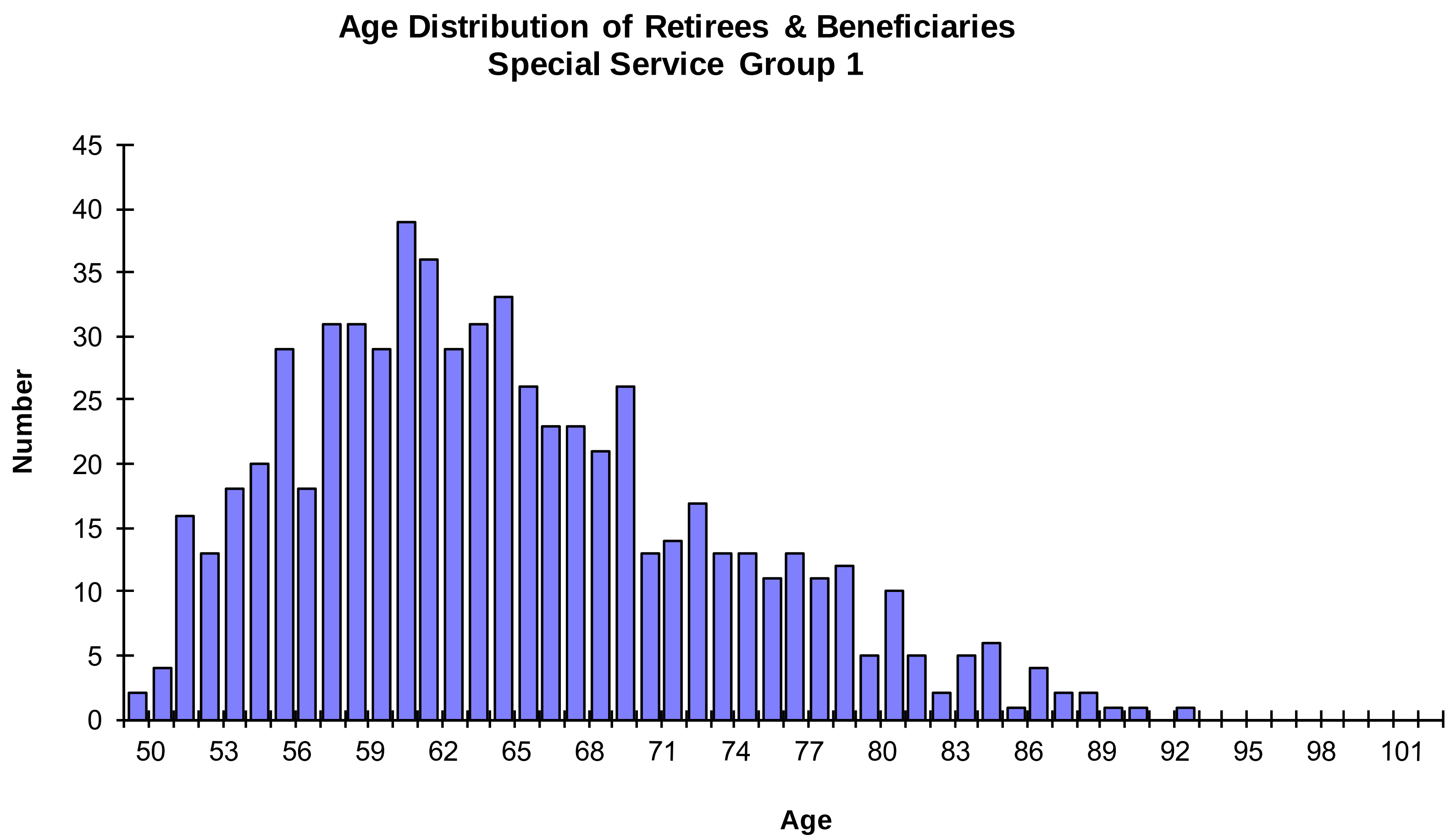
	Number of Members and Beneficiaries									Average
					Contingent			Period		Annual
Age	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	0	0	0	1	0	0	0	1	$6,159
40 to 44	2	0	0	0	0	0	0	0	2	29,688
45 to 49	4	1	0	0	2	0	1	0	8	21,417
50 to 54	6	4	6	13	4	0	20	0	53	38,384
55 to 59	25	19	12	30	0	5	38	0	129	36,322
60 to 64	33	22	5	28	5	7	64	0	164	32,851
65 to 69	31	9	12	24	5	7	38	0	126	26,861
70 to 74	21	9	5	29	6	5	8	0	83	22,934
75 to 79	16	5	3	20	6	4	6	0	60	15,248
80 to 84	6	4	2	8	7	0	0	0	27	10,902
85 to 89	3	1	0	5	6	0	0	0	15	7,674
90 to 94	1	1	0	1	0	0	0	0	3	23,717
95 to 99	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	NA
Counts	148	75	45	158	42	28	175	0	671	$28,284
% of Total	22.1%	11.2%	6.7%	23.5%	6.3%	4.2%	26.1%	0.0%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

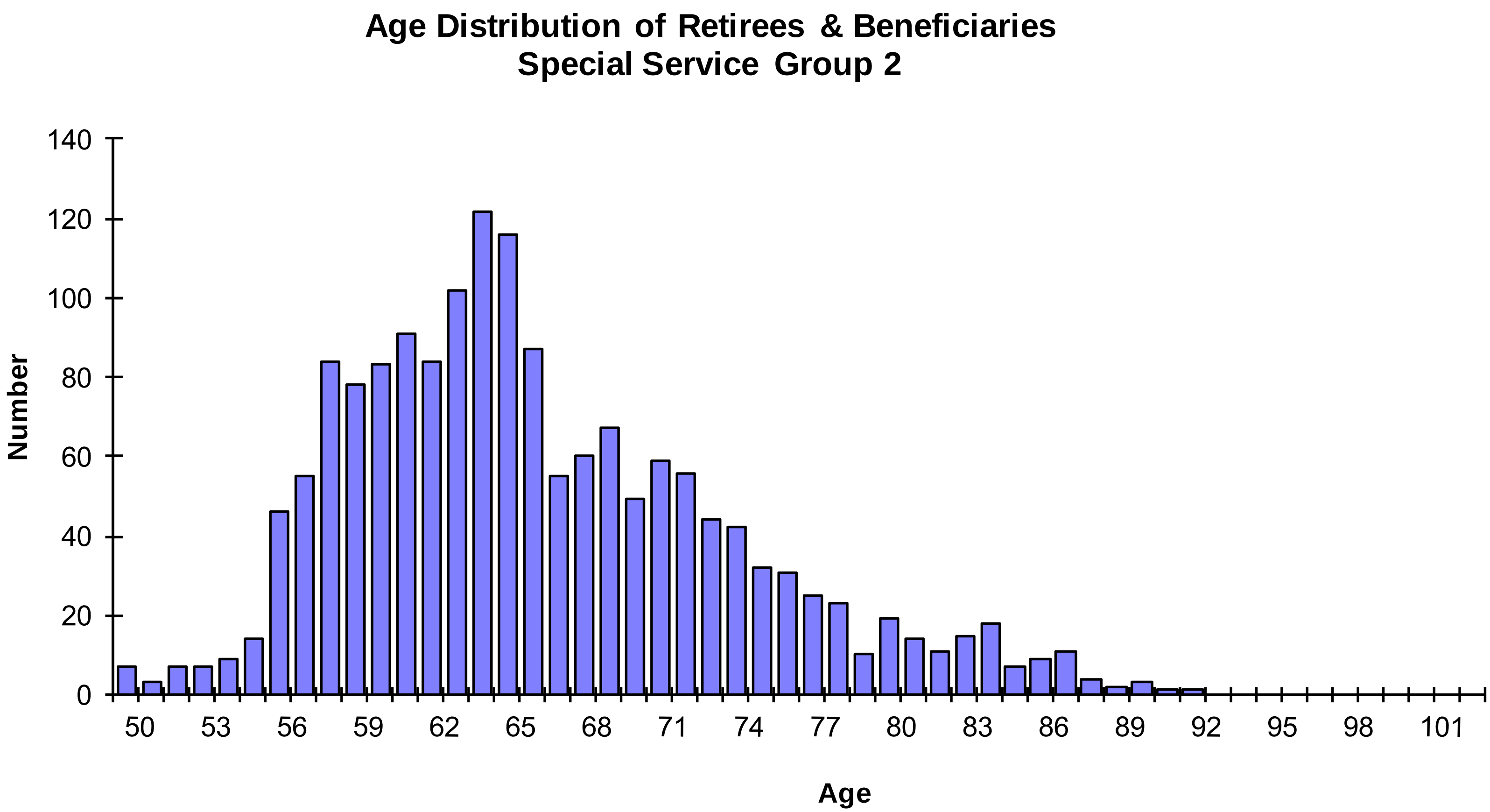
Males and Females - Special Service Group 2

	Number of Members and Beneficiaries									Average
					Contingent			Period		Annual
Age	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	1	0	0	0	0	0	0	0	1	$21,765
40 to 44	0	0	0	2	0	0	1	1	4	25,854
45 to 49	3	0	4	2	1	0	4	0	14	17,404
50 to 54	7	3	7	5	3	0	8	0	33	18,499
55 to 59	62	32	19	58	13	6	87	0	277	30,341
60 to 64	98	79	46	81	16	13	149	0	482	26,801
65 to 69	88	54	30	67	11	25	110	0	385	21,729
70 to 74	48	36	26	64	18	12	46	0	250	16,450
75 to 79	33	10	6	41	15	10	6	0	121	13,227
80 to 84	26	3	2	29	12	5	0	0	77	10,829
85 to 89	8	3	0	7	9	6	0	0	33	7,089
90 to 94	0	1	0	1	1	2	0	0	5	41,341
95 to 99	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	NA
Counts	374	221	140	357	99	79	411	1	1,682	$22,286
% of Total	22.2%	13.1%	8.3%	21.2%	5.9%	4.7%	24.4%	0.1%	100.0%	


Age Distribution of Retirees & Beneficiaries
Regular Membership
6,000
5,000
4,000
3,000
2,000
1,000
0
Number
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101
Age



Age Distribution of Retirees & Beneficiaries
Special Service Group 1
Number
0
5
10
15
20
25
30
35
40
45
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101
Age


Age Distribution of Retirees & Beneficiaries
Special Service Group 2
Number
140
120
100
80
60
40
20
0
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101
Age

SUMMARY OF DATA FILE RECONCILIATION

The following table reconciles the data we received from IPERS to the final membership counts used in the valuation.

Records on the in-pay data file	101,948
Removed deaths prior to 7/1/12	(231)[1]
Records used in the valuation	101,677
Records on the not-in-pay data file	242,428
Records removed because the member has received all benefits	(186)[2]
Records used in the valuation	242,242

These records are allocated as follows:

Active members	164,200
Retired, reemployed members	8,265
Vested inactive members	29,119
Nonvested inactive members	40,658
Total	242,242

Nonvested inactive members include deceased vested inactive members with employee contributions still held by the System.

1 These 231 include:
208 removed because of death
23 removed because benefit ended

2 These 186 were removed because they are no longer active, nor are they entitled to benefits

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APPENDIX B

SUMMARY OF PLAN PROVISIONS

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Chapter 97B of the Iowa code sets out the IPERS provisions, which are briefly summarized as follows:

Participation:	In general, the System covers people in non-federal public employment within the State of Iowa. Membership is mandatory if a person is in covered employment. Exceptions to this are set out in the law. Notable exceptions are those covered by another public system in Iowa (such as judges, state patrol, and policemen and firemen in cities having civil service), employees of the Regents' institutions, and employees of the community colleges who elect alternative coverage under TIAA.
Service Credit:	A member will receive membership credit for service rendered after July 4, 1953 (special rules apply to service before this date). Service is counted to the complete quarter of a calendar year. A member will not receive credit for more than four quarters of service in a calendar year regardless of the number of employers reporting covered wages for that member. A calendar year is the 12-month period beginning January 1 and ending December 31. Members may purchase service under specified conditions. To make such a purchase, the member must pay the actuarial cost of such service.

REGULAR MEMBERS:

Average Salary:	The average of the member's highest three years of covered wages. Effective July 1, 2012 the average of a member's highest five years of covered wages, but not less than the member's highest three years as of June 30, 2012, if vested at that time.

Age and Service Requirements for Benefits:

Normal Retirement	Earliest of the first day of the month of the member's 65th birthday, age 62 with 20 years of service or Rule of 88 (age plus service equals/exceeds 88), with a minimum of age 55.
Early Retirement	First day of any month starting with the month of the member's 55th birthday but preceding the normal retirement date.
Inactive Vested Benefit	Four years of service (seven years effective July 1, 2012). Prior to July 1, 2005 inactive members could become eligible for a vested benefit merely by reaching age 55.
Pre-retirement Death Benefit	Upon death of a member before benefits have started.
Disability Benefit	Upon meeting requirements to be vested, if the active or inactive member begins receiving federal Social Security disability or Railroad Retirement disability benefits.

Retirement Benefits:

Normal Retirement	An annuity equal to 2% of Average Salary (AS) for each year of service up to 30 years plus 1% of AS for each of the next 5 years of service. Maximum years of service recognized for benefit accrual purposes is 35 with a resulting maximum benefit of 65% of AS.
Early Retirement	An annuity, determined in the same manner as for normal retirement. However, a reduction of 0.25% per month is applied for each month the benefit commences prior to normal retirement age (based on service at early retirement). Effective July 1, 2012, the reduction changes to 0.50% per month and applies to each month that the benefit commences before age 65. Transition rules apply if members have service both before and after July 1, 2012.
Pre-retirement Death Benefits	Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.
Disability Benefits	An annuity, payable immediately, equal to the Normal Retirement Benefit without an early retirement adjustment.

Termination Benefits:

Less than four* years of Service (Nonvested)	A refund of all of the member's accumulated contributions.
Four* or more years of Service (Vested)	At the member's election either: (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 30) of the employer's contributions with interest, or (2) a deferred benefit determined in the same manner as for normal retirement. Payments can begin at normal or early retirement.

* Effective July 1, 2012 seven years of service for those not vested at that time.

Form of Annuity:	The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).
Optional Forms of Payment:	*Option 1:* The member specifies a dollar amount, in $1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and

cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

Option 3: After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Actuarial Equivalent Lump Sum Payment: If a vested member is entitled to receive a benefit and it is less than $50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

Post-retirement Benefit Increases: Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

Favorable Experience Dividend (FED): For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:
(December's Monthly benefit) X (12 months) X (Rate) X (Full calendar years retired) = FED

Source of Funds:

Regular Membership:

Contribution Rates			
Time Period	**Employees**	**Employer**	**Total**
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 – 6/30/12	5.38%	8.07%	13.45%
7/1/12 and later	Actuarially Determined*		

*Change in contribution rate cannot exceed 1.0% per year.

SPECIAL SERVICE GROUPS 1 AND 2:

Average Salary: The average of the member's highest three years of covered wages

Age and Service Requirements for Benefits:

Normal Retirement: Generally age 55. However, a member of the Sheriffs and Deputy Sheriffs (Group 1) may retire at age 50 with 22 years of service.

Inactive Vested Benefit: Four years of service. Prior to July 1, 2005 inactive members could become eligible for vested benefits merely by reaching age 55.

Pre-retirement Death Benefit: Upon death of a member before benefits have started.

Disability Benefit	Upon meeting requirements to be vested, (i) if the active or inactive member begins receiving federal Social Security or Railroad Retirement disability benefits, or (ii) upon being determined by IPERS to be disabled under the provisions of Iowa Code section 97B.50A. The disability benefits under Iowa Code section 97B.50A must be applied for through IPERS within one (1) year after termination of employment. Benefits under Iowa Code section 97B.50A may be paid for in-service disability or ordinary disability.

Retirement Benefits:

Normal Retirement	60% of average salary after completion of 22 years of service, plus an additional 1.5% of average salary for years of service greater than 22 but not more than 30. Maximum formula is 72% of average salary.
Pre-retirement Death Benefit	Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.
Disability Benefits	An annuity, payable immediately, equal to the Normal Retirement Benefit, without an adjustment. The benefit is the greater of the Normal Retirement Benefit and either 50% (for ordinary disability) or 60% (for in-service disability) of Average Salary.

Termination Benefits:

Less than four years of Service (Non-vested)	A refund of all of the member's accumulated contributions.
Four or more years of Service (Vested)	At the member's election either: (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 22) of the employer's contributions with interest, or (2) a deferred benefit determined in the same manner as for normal retirement. Payments begin at normal retirement.

Form of Annuity:	The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).

Optional Forms of Payment:

Option 1: The member specifies a dollar amount, in $1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

Option 3: After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Level Income Payment Option: A Level Income payment alternative is authorized for special service members. This alternative applies to all IPERS retirement options listed above except Option 6. The Level Income payment alternative permits a special service member to receive a relatively level income both before and after age 62 when benefits from IPERS and Social Security are combined. Higher IPERS benefits are paid prior to age 62. When the member reaches age 62, the member's IPERS benefit is permanently reduced. This amount is determined when the member retires and is not recomputed based on the actual Social Security benefit.

Actuarial Equivalent Lump Sum Payment:	If a vested member is entitled to receive a benefit and it is less than $50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.
Post-retirement Benefit Increases:	Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.
Favorable Experience Dividend (FED):	For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions: • The member must be retired one year. • The FED rate cannot exceed 3%. • The FED payment will be issued in a lump sum in January. • The FED payment is not guaranteed. The formula is as follows: (December's Monthly benefit) x (12 months) x (Rate) x (Full calendar years retired) = FED

Source of Funds:

Special Service Group 1:	Actuarially determined contribution rate. Employees contribute 50% and employers contribute 50%.
Special Service Group 2:	Actuarially determined contribution rate. Employees contribute 40% and employers contribute 60%.

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

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Sound financing of any retirement system requires that benefits accruing to its members shall be paid for during their active working lifetime so that when a member (or his beneficiary) becomes entitled to a benefit, the monies necessary to provide such benefit shall be on hand. In this way, the cost of benefits for present active members will not become a liability to future members and taxpayers.

The principal purpose of an actuarial valuation is to calculate, on the basis of certain assumptions, the present value of benefits that are payable in the future from the system to present members (and their beneficiaries) and the present value of future contributions to be made by the members and their employers. Having calculated such present values, the level of annual contribution to the system required to fund (or pay for) the benefits, in accordance with the above stated principle of sound financing, may be determined.

VALUATION ASSUMPTIONS

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and census (member) information of the Retirement System, using the actuarial cost method.

The principal areas of risk which require experience assumptions about future activities of the Retirement System are:

- long-term rates of investment return to be generated by the assets of the system
- patterns of pay increases to members
- rates of mortality among members, retirants and beneficiaries
- rates of withdrawal of active members
- rates of disability among active members
- the age patterns of actual retirements

In making a valuation, the monetary effect of each assumption is calculated for as long as a present member survives -- a period of time which can be as long as a century.

Actual experience of the Retirement System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experiences. The result is a continual series of adjustments to the computed contribution rate, or alternatively to the amortization period for the unfunded actuarial liability.

From time to time, one or more of the assumptions are modified to reflect experience trends (but not random or temporary year to year fluctuations). A complete review of the actuarial assumptions was completed in 2010, based on experience from 2005-2009. The Investment Board has adopted and approved the use of the assumptions and methods presented in the 2005-09 Experience Study. In November, 2011, the Board adopted revised post-retirement mortality assumptions for the regular members after a coding error was discovered and the retained actuary recommended changing the current assumption. The following is a summary of the assumptions and methods used in the valuation:

ECONOMIC ASSUMPTIONS:

Rate of Inflation (effective June 30, 2006)

3.25% per annum

Rate of Crediting Interest on Contribution Balances (effective June 30, 2006)

4.00% per annum, compounded annually

Rate of Investment Return (effective June 30, 1996)

7.50% per annum, compounded annually, net of expenses.

Wage Growth Assumption (effective June 30, 1999)*

4.00% per annum based on 3.25% inflation assumption and 0.75% real wage inflation.

*Total of 4.0% did not change but the components changed June 30, 2006

Payroll Increase Assumption (effective June 30, 1999)

4.00% per year

DEMOGRAPHIC ASSUMPTIONS:

Rates of Mortality

To reflect anticipated future mortality improvements, generational mortality is used with projected mortality improvements based on Projection Scale AA.

Pre-Retirement (effective June 30, 2010)

State	
Male	RP2000 Employee Table, Generational, set back 3 years
Female	RP2000 Employee Table, Generational, set back 8 years
School	
Male	RP2000 Employee Table, Generational, set back 3 years
Female	RP2000 Employee Table, Generational, set back 8 years
Other	
Male	RP2000 Employee Table, Generational, no set back
Female	RP2000 Employee Table, Generational, set back 8 years
Special Services	
Male	RP2000 Employee Table, Generational
Female	RP2000 Employee Table, Generational

For Special Services active members, 5% of deaths are assumed to be service related.

Post-Retirement (effective June 30, 2011 for Regular Members and June 30, 2010 for Special Service Members)

State	RP2000 Healthy Annuitant Table, Generational
Male	1 Year set forward
Female	1 Year set back with 5% increase above age 75
School	RP2000 Healthy Annuitant Table, Generational
Male	No age adjustment but rates decreased by 5% below age 75
Female	3 Year set back with 10% decrease before age 75 and 10% increase above age 75
Other	RP2000 Healthy Annuitant Table, Generational
Male	1 Year set forward
Female	2 Year set back with 5% increase above age 75
Special Services	RP2000 Healthy Annuitant Table, Generational
Male	No age adjustment
Female	No age adjustment
Beneficiaries:	Same as members
Disabled Members (all groups):	RP2000 Disabled Mortality, Generational Set back 1 year for males and set forward 3 years for females

Retirement Rates (effective June 30, 2010)

Upon meeting the requirements for early retirement, the following rates apply to Regular Members:

	Assumed Retirement Rates – Early		
Age	State	School	Other
55	5.0%	8.0%	5.0%
56	5.0%	8.0%	5.0%
57	5.0%	8.0%	5.0%
58	5.0%	8.0%	5.0%
59	5.0%	9.0%	5.0%
60	5.0%	10.0%	5.0%
61	15.0%	15.0%	10.0%
62	15.0%	20.0%	20.0%
63	15.0%	20.0%	20.0%
64	15.0%	20.0%	20.0%

Upon reaching the requirements for normal retirement (unreduced benefits), the following rates apply:

Assumed Retirement Rates – Select Unreduced

Age	State	School	Other
55	20.0%	30.0%	20.0%
56	15.0%	30.0%	20.0%
57	15.0%	30.0%	20.0%
58	15.0%	30.0%	20.0%
59	15.0%	30.0%	20.0%
60	15.0%	30.0%	20.0%
61	20.0%	30.0%	20.0%
62	40.0%	40.0%	40.0%
63	35.0%	30.0%	35.0%
64	30.0%	30.0%	35.0%
65	30.0%	30.0%	30.0%

Assumed Retirement Rates – Ultimate Unreduced

Age	State	School	Other
55	15.0%	23.0%	15.0%
56	15.0%	23.0%	15.0%
57	15.0%	23.0%	15.0%
58	15.0%	23.0%	15.0%
59	15.0%	23.0%	15.0%
60	15.0%	23.0%	15.0%
61	20.0%	30.0%	20.0%
62	40.0%	35.0%	35.0%
63	30.0%	30.0%	25.0%
64	30.0%	30.0%	25.0%
65	30.0%	45.0%	40.0%
66	30.0%	35.0%	30.0%
67	20.0%	25.0%	20.0%
68	20.0%	25.0%	20.0%
69	35.0%	40.0%	40.0%
70	100.0%	100.0%	100.0%

	Assumed Retirement Rates	
Age	SS1	SS2
50	20.0%	
51	20.0%	
52	20.0%	
53	20.0%	
54	20.0%	
55	25.0%	20.0%
56	20.0%	10.0%
57	20.0%	10.0%
58	20.0%	10.0%
59	20.0%	10.0%
60	20.0%	10.0%
61	20.0%	10.0%
62	35.0%	35.0%
63	50.0%	30.0%
64	50.0%	30.0%
65	100.0%	100.0%

Terminated vested members are assumed to retire at age 62 (55 for Special Services). For Regular Membership, retired reemployed members are assumed to retire at a rate of 25% per year until age 80 when all are assumed to retire.

Rates of Disablement (effective June 30, 2010)

	Assumed Rates					
	Males			Females		
Age	State	School	Other	State	School	Other
27	0.020%	0.020%	0.020%	0.020%	0.030%	0.020%
32	0.020%	0.020%	0.020%	0.020%	0.030%	0.020%
37	0.040%	0.040%	0.040%	0.032%	0.040%	0.032%
42	0.065%	0.065%	0.065%	0.051%	0.050%	0.051%
47	0.120%	0.110%	0.140%	0.087%	0.090%	0.087%
52	0.220%	0.160%	0.326%	0.220%	0.165%	0.200%
57	0.320%	0.260%	0.630%	0.390%	0.240%	0.350%
62	0.420%	0.360%	0.900%	0.620%	0.320%	0.500%

Age	Assumed Rates Special Services Rate
27	0.150%
32	0.150%
37	0.150%
42	0.180%
47	0.230%
52	0.280%
57	0.380%
62	0.510%

Rates of Termination of Employment (effective June 30, 2010)

Regular Membership

	Male			Female		
Years of Service	State	School	Other	State	School	Other
1	15.4%	15.0%	21.0%	15.4%	15.0%	21.0%
5	5.5%	6.9%	8.4%	5.5%	6.9%	9.2%
10	2.2%	2.9%	4.3%	2.2%	2.9%	5.8%
15	1.7%	1.8%	2.6%	1.7%	1.8%	4.1%
20	1.1%	1.3%	2.4%	1.1%	1.3%	3.2%
25	1.1%	1.3%	2.0%	1.1%	1.2%	2.4%
30	1.1%	1.2%	1.2%	1.1%	1.2%	1.5%

Special Services

Age	Rate of Termination
22	5.8%
27	5.8%
32	3.5%
37	3.0%
42	2.6%
47	2.0%
52	2.0%

Probability of Electing a Deferred Vested Benefit (effective June 30, 2010)

	Regular Membership					
	Male			Female		
Years of Service	State	School	Other	State	School	Other
5	66.0%	76.0%	61.0%	61.0%	80.0%	70.0%
10	73.0%	81.0%	66.0%	66.0%	80.0%	73.0%
15	78.0%	86.0%	71.0%	76.0%	85.0%	80.0%
20	83.0%	91.0%	76.0%	86.0%	90.0%	85.0%
25	88.0%	95.0%	80.0%	96.0%	95.0%	90.0%
30	90.0%	95.0%	80.0%	100.0%	100.0%	90.0%

	Special Services
Years of Service	Rate
5	53%
10	65%
15	85%
20	95%
25	100%
30	100%

Rates of Salary Increase* (effective June 30, 2010)

	Annual Increase			
Years of Service	State	School	Other	Special Services
1	15.0%	17.0%	15.0%	17.0%
5	7.6%	6.5%	6.1%	6.5%
10	6.3%	5.3%	5.3%	5.3%
15	5.2%	4.5%	4.8%	4.8%
20	4.8%	4.2%	4.5%	4.5%
25	4.6%	4.0%	4.4%	4.5%
30+	4.3%	4.0%	4.4%	4.0%

* Includes 4.0% wage growth

ACTUARIAL COST METHOD (adopted 1996)

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the entry age normal actuarial cost method. Under this method, a total contribution rate is determined which consists of two parts: (i) the normal cost rate and (ii) the unfunded actuarial liability (UAL) rate. The entry age normal cost method has the following characteristics:

(i) The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation rates.

The entry age normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation rates between the entry age of the member and the assumed exit ages.

ACTUARIAL AMORTIZATION METHOD (adopted 2011)

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting the actuarial value of assets from the actuarial accrued liability determines the unfunded actuarial liability (UAL). The one-year lag between the valuation date and the date the contribution rate is effective is reflected in calculating the UAL and the corresponding amortization payment. The UAL is amortized according to the Actuarial Amortization Method adopted by the Investment Board and summarized below:

1. For the actuarial valuation prepared as of June 30, 2011, the amortization period of the UAL for each of IPERS' membership groups is 30-year open.
2. For actuarial valuations prepared as of June 30, 2012 and later, the amortization period for the UAL for Special Service Group 1 and Special Service Group 2 shall be a closed period beginning at 30 years.
3. The amortization period for the Regular Membership shall be 30-year open until the statutory rate is the same as the actuarially determined contribution rate (ADCR). The amortization period shall move to a closed period, beginning at 30 years, in the actuarial valuation following the actuarial valuation in which the statutory rate equals the ADCR.
4. The amortization period of a surplus shall be a 30-year open period for all groups.

ACTUARIAL VALUE OF ASSETS SMOOTHING METHOD (adopted 2007)

The market value of assets, representing a fair value of System assets, may not necessarily be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

Step 1: Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return applied to the prior actuarial value and the actual receipts and disbursements of the fund for the previous 12 months.

Step 2: Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.

Step 3: Multiply the difference between market and expected values determined in Step 2 by 25%.

Step 4: Add the expected value of Step 1 and the product of Step 3 to determine the actuarial value of assets.

Step 5: Verify the preliminary actuarial value of assets in Step 4 is not more than 120% of the market value of assets nor less than 80% of the market value. If it is, adjust the actuarial value of assets so it falls within the 80% - 120% corridor.

TECHNICAL VALUATION PROCEDURES

Data Procedures

In-pay members:

If a birth date is not available, the member is assumed to be 80. If a retirement date is also not available, the member is assumed to have retired at 65.

If a beneficiary birth date is needed but not supplied, husbands are assumed to be 3 years older than wives.

Not in-pay members:

If a birth date is not available, the member is assumed to be the average age of the members with the same status.

If gender is not provided, regular members are assumed to be female and Special Service members are assumed to be male.

Salaries for first year members are annualized based on the number of quarters with wages.

Membership Transfers

IPERS provides a code in the valuation data to indicate that a member is in a membership group (regular, Special Service 1 and Special Service 2) different from that on the prior valuation date. The actuarial liability for these members is calculated under the assumptions and provisions of the prior membership group. A preliminary funded ratio (before asset transfer) is determined for the three membership groups. Assets are then transferred from the prior to the current membership group based on the funded ratio of the prior group times the actuarial liability of the member in the prior group. Then, the members are revalued in the current membership group for purposes of valuation calculations.

Other Valuation Procedures

No actuarial accrued liability in excess of the unclaimed member contribution balance is held for nonvested, inactive members. Inactive vested members who have died are treated in the same manner.

The wages used in the projection of benefits and liabilities are considered earnings for the current year ending June 30, increased by the salary scale.

The calculations for the actuarial required contribution are determined as of mid-year. This is a reasonable estimate since contributions are made throughout the year.

The projected IRC Section 415 limit for active participants was not valued. The impact was assumed to be *de minimus*.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation.

DEFINITION OF TERMS

Accrued Service — Service credited under the system that was rendered before the date of the actuarial valuation.

Actuarial Assumptions — Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method — A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent — A single amount or series of amounts of equal value to another single amount or series of amounts computed on the basis of a given set of actuarial assumptions.

Actuarial Liability — The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial accrued liability."

Actuarial Present Value — The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.

Amortization — Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.

Experience Gain (Loss) — The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.

Normal Cost — The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Liability

The difference between actuarial liability and the actuarial value of assets. Sometimes referred to as "unfunded accrued liability" or "unfunded liability".

Most retirement systems have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial liability and make payments to finance it. Also of importance are trends in the amount or duration of payment.

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APPENDIX D

CONTRIBUTION RATE FUNDING POLICY

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Background

IPERS is charged with setting a "Required Contribution Rate" for each membership category within IPERS that will discharge its liabilities. Iowa Code §97B.11(3)(d) provides the basic framework for implementing this charge by stating:

> The required contribution rate that is set by the system for a membership category shall be the contribution rate the system actuarially determines, based upon the most recent actuarial valuation of the system and using the actuarial methods, assumptions, and funding policy approved by the investment board, is the rate required by the system to discharge its liabilities as a percentage of the covered wages of members in that membership category. However, the required contribution rate set by the system for members in regular service for a fiscal year shall not vary by more than one percentage point from the required contribution rate for the prior fiscal year.

The Investment Board adopted entry age normal as the applicable actuarial cost method and adopts actuarial assumptions following each quadrennial experience study. A funding policy will give further definition to the application of the actuarial assumptions in determining a rate to discharge the liabilities.

Purpose/Goal

To provide guidance in setting contribution rates that combined with investment income will fund the benefits specified in Chapter 97B of the Iowa Code.

Contribution Rate Funding Policy (adopted 2011)

1. The Actuarially Determined Contribution Rate (ADCR) shall be determined using the actuarial value of assets and actuarial value of liabilities based on the entry age normal actuarial cost method and the actuarial assumptions and methods approved by the IPERS Investment Board for use in the annual actuarial valuation process.

2. The ADCR payable in a fiscal year shall be computed from the actuarial valuation of the fiscal year end two years prior to the payment year (for example, the ADCR payable in fiscal year ending June 30, 2013 will be determined in the June 30, 2011 valuation). A separate ADCR shall be determined for each membership group within IPERS.

3. The ADCR shall constitute:
   a. Normal cost and amortization cost of any unfunded actuarial liability based on the amortization period set forth in the approved actuarial assumptions and methods, or
   b. Normal cost with an offset by a negative amortization cost after a membership group has attained a funding ratio of 110 percent or greater for 3 consecutive years.

4. The combined employer and employee Required Contribution Rate shall be:
   a. The ADCR for Special Service Group 1.
   b. The ADCR for Special Service Group 2.
   c. The ADCR for Regular Membership, but no more than a one percentage point change from the prior year's Required Contribution Rate.

Guidelines:

In adopting actuarial assumptions and methods to be used in setting contributions, the Investment Board shall strive to provide the following:

1. Stability in contributions (such as use of smoothing and amortization schedules that do not produce dramatic swings in the required contributions from year to year).

2. Disciplined funding approach (such as requiring full payment of normal cost and an amortization payment towards the unfunded actuarial liability).

3. Intergeneration equity (such as shortening the amortization schedule when reasonable, amortization of retroactive benefit enhancements over a reasonable time period such as the average working lifetime for active members and the average life expectancy of retired members).

4. Support an affordable, sustainable plan.