IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Actuarial Valuation Report
as of June 30, 2008

Milliman

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ACTUARIAL VALUATION OF THE IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

TABLE OF CONTENTS

SECTION

APPENDICES

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October 31, 2008

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

Re: June 30, 2008 Actuarial Valuation Report

Dear Board Members:

We have performed an actuarial valuation of the Iowa Public Employees' Retirement System (System) as of June 30, 2008 for determining contribution rates effective for the period July 1, 2009 to June 30, 2010. The major findings of the valuation are contained in this report. The report reflects the benefit provisions and scheduled contribution rates in effect as of the valuation date. The valuation results reflect the transfer of several groups from regular membership into Special Service Group 2, including Emergency Medical Service (EMS) providers, County Jailers, County Attorney Investigators, National Guard Installation Security Officers, and employees of the Department of Corrections. The report also reflects a refinement in the valuation processing for members with split service (service credit in more than one membership group). Additional data regarding service credit was provided by IPERS this year, which allowed for better estimates of future benefits to be paid to split service members. This change did not have a material impact on the overall System's unfunded actuarial liability.

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. In our examination of these data, we have found them reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

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 has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

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 of future experience); 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 of the dates indicated in Appendix C.

Future actuarial measurements may differ significantly from the current measurements 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. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations 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 GASB Statement No. 25, as amended by GASB Statement No. 50. 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.

Milliman's work product was prepared exclusively for IPERS for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning IPERS operations, and uses IPERS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

We would like to express our appreciation to IPERS' Staff, who gave substantial assistance in supplying the data on which this report is based.

We, Patrice A. Beckham, F.S.A., and Brent A. Banister, F.S.A., are members of the American Academy of Actuaries and Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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

MILLIMAN, Inc.

Sincerely,

Patrice Beckham

Brent A. Banister

Patrice A. Beckham, F.S.A.	Brent A. Banister, F.S.A.
Consulting Actuary	Consulting Actuary

SECTION I

EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of the June 30, 2008 actuarial valuation of the Iowa Public Employees' Retirement System (IPERS). The primary purposes of performing the valuation are as follows:

- to evaluate the sufficiency of the statutory contribution rate structure to fund the benefits expected to be paid to regular members in the future and to determine if the Plan's funding meets the criteria set out in the Funding Policy established by IPERS,
- to determine the actuarial contribution rates for the Special Service Groups,
- to evaluate the funded status of the System and disclose various asset and liability measures as of June 30, 2008,
- 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 assumptions and methods (actuarial cost method and asset smoothing method) are unchanged from last year's report. However, several changes occurred which impacted the 2008 valuation results including:

- The valuation methodology for members with split service (service in more than one membership group) was changed.
- Legislation passed in 2008 provided for the transfer of four groups into the Special Service Group 2.
- The Department of Administrative Services reclassified the positions of 77 members, which resulted in their transfer into Special Service Group 2.

For several years, IPERS and Milliman have discussed possible refinements in the valuation process to improve the calculation of liabilities for members who have worked in more than one of the three membership groups, i.e. regular, Special Service 1 (SS1) and Special Service 2 (SS2). These members are referred to as "split service members". This issue was also raised in the actuarial audit as a possible improvement to the valuation process and is the last of the audit recommendations to be implemented. Historically, the valuation data provided to the actuary did not provide specific detail with respect to a member's service and all service had to be assumed to be in one membership group. With IPERS' new information system and improved data quality, the appropriate service credit from each membership group can now be provided in the valuation data. The detailed data allows for a more refined measurement of the benefits and liabilities of the membership groups and produces a consistent valuation of liabilities and allocation of costs. The change in the valuation procedures for split service members had no material impact on the total System unfunded actuarial liability.

With the improvement in the processing of split service members, the assets and liabilities for each member now reside in their current membership group. Effective with the June 30, 2008 valuation, a transfer of assets will be performed as of June 30th for all members 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. 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.

Legislation passed in 2008 transferred four groups - (1) Emergency Medical Service (EMS) providers, (2) County Jailers, (3) County Attorney Investigators, and (4) National Guard Installation Security Officers - from regular membership to Special Service Group 2 for future service only. Also, there was a reclassification of seventy-seven (77) members of the Department of Corrections which transferred these members to the SS2 group. These combined transfers increased the active member count of the SS2 group from 4,823 to 7,062. This large influx of members into SS2 resulted in a higher contribution rate for the SS2 group. The actuarial contribution rate for SS2, which was 15.34% in this valuation, would have been 14.24% if these transfers had not occurred. For additional discussion on the impact of these changes, please see Section IV of this report. Although these membership changes are effective July 1, 2008, they are reflected in this valuation because it is used to set the contribution rate for FY2010.

The statutory contribution rate for regular members had been 9.45% (3.70% for members and 5.75% for employers) since 1979. For several years, the valuation indicated the 9.45% statutory contribution rate was insufficient to finance the benefits provided by IPERS. In 2006, legislation was passed that increased the statutory contribution rate 0.50% per year for four years commencing on July 1, 2007. The increase each year is shared 40% by the members and 60% by the employers. By July 1, 2010, the statutory contribution rate will reach 11.45% of pay. Legislation passed in 2008 gave IPERS the authority to implement actuarially determined contribution rates for the regular membership group after fiscal year 2011. However, the contribution rate may not change by more than 0.50% in any single year. In the valuation, future increases in contribution rates are reflected for purposes of analyzing the long term funding of the System. However, for purposes of reporting under Governmental Accounting Standards, future increases in the contribution rate are not reflected. This valuation reflects the second scheduled increase in the contribution rate from 9.95% to 10.45%. The change in the member contribution rate results in higher projected refunds for members who terminate active employment because the amount of employer money refunded increases. The higher benefits translate to higher liabilities and a slightly higher normal cost.

The actuarial valuation results provide a "snapshot" view of the System's financial condition on June 30, 2008. The results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability (UAL) that was higher than expected, based on actuarial assumptions. The UAL on June 30, 2008 for all membership groups covered by IPERS (Regular members and both Special Service Groups) is $2.665 billion as compared to an expected UAL of $2.446 billion. The unfavorable experience was the sum of an experience loss of $5 million on the actuarial value of assets and an experience loss of $214 million on System liabilities.

The summary of the 2008 valuation results are shown below:

Contribution Rate for FY10			
	Regular Membership	Special Service Group 1*	Special Service Group 2**
1. Normal Cost Rate	9.90%	15.57%	16.00%
2. Amortization of UAL over 30 years	2.44%	(0.33%)	(0.66%)
3. Total Contribution Rate	12.34%	15.24%	15.34%
4. Member Contribution Rate	4.30%	7.62%	6.14%
5. Employer Contribution Rate (3) - (4)	8.04%	7.62%	9.20%
6. Statutory/Expected Contribution	6.65%	7.62%	9.20%
7. Shortfall (5) – (6)	1.39%	0.00%	0.00%
8. Years to Amortize (Based on (6))	Infinite	30	30
9. Unfunded Actuarial Liability ($M)	$2,712	(5.6)	(41.5)
10. Funded Ratio	88.4%	101.5%	105.1%

* 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, 2007 and June 30, 2008. The components are examined in the following discussion.

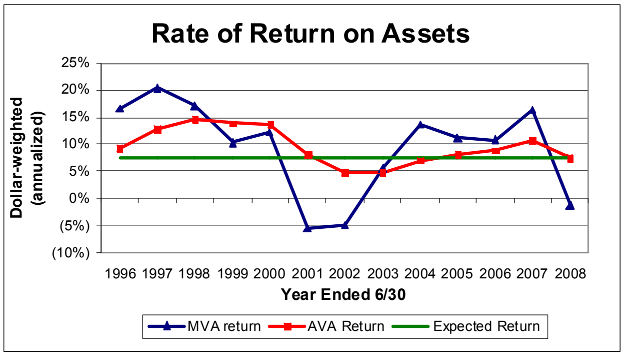
ASSETS

As of June 30, 2008, the System (including Special Service groups) had total assets of $21.8 billion, when measured on a market value basis, **excluding the Favorable Experience Dividend (FED) reserve account**. This was a decrease of $0.8 billion from the prior year. The actuarial value as of June 30, 2008 was $21.9 billion, an increase of $1.1 billion from the prior year. The components of change in the asset values are shown below:

	Market Value ($M)	Actuarial Value ($M)
Net Assets, June 30, 2007	$ **22,624**	$ **20,760**
• Employer and Member Contributions	+ 634	+ 634
• Benefit Payments and Refunds	- 1,073	- 1,073
• Expected Investment Income, net of expenses (Based on 7.5% assumption)	+ 1,760	+ 1,541
• Actuarial Gain/(Loss) on Investment Return	- 2,101	- 5
Net Assets, June 30, 2008 Before FED Transfer	$ **21,844**	$ **21,857**
• FED Transfer Payable January 15, 2009	- 0	- 0
Net Assets, June 30, 2008 After FED Transfer	$ **21,844**	**$ 21,857**

On a market value basis, the rate of return was -1.33% as reported by IPERS. The market value of assets is not used directly in the calculation of the contribution rate and amortization period. The actuarial value of assets is equal to the expected asset value, based on the assumed interest rate of 7.5%, plus 25% of the difference between the actual market value and the expected asset value. The dollar-weighted rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was 7.5%.

Please see Exhibits 2 and 3 in Section II of this report for a summary of market and actuarial value of assets by group (Regular, Special Service 1 and Special Service 2) as of June 30, 2008.



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.

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, 2008 below:

($Millions)	**Regular Membership**	**Special Service 1**	**Special Service 2**	**Total***
Actuarial Liability	$23,333	$374	$815	$24,522
Actuarial Value of Assets	20,621	380	857	21,857
Unfunded Actuarial Liability	2,712	(6)	(42)	2,665
Funded Ratio	88.4%	101.6%	105.2%	89.1%

*Totals may not add due to rounding.

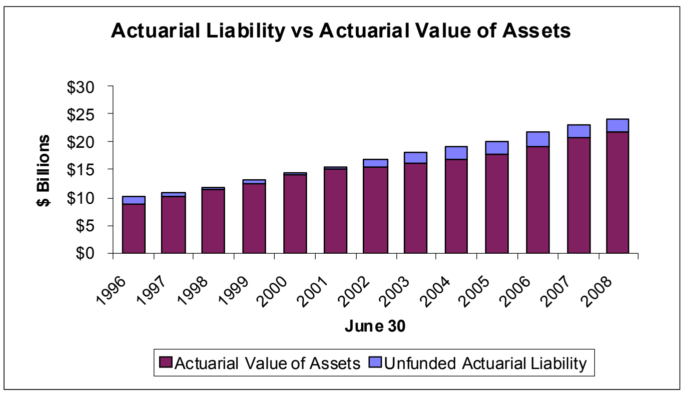
See Exhibit 7 in Section III of the report for the detailed development of the unfunded actuarial liability for each group.

Actuarial gains (losses) result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions. These "experience" (or actuarial) gains or losses 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 assumption, methodology or benefit provision changes. Overall, the System experienced a net actuarial loss of $219 million.

The net actuarial loss may be explained by considering the separate experience of assets and liabilities. As noted in the previous section, assets had a $5 million loss when measured on an actuarial value basis. The liability loss is $214 million (or about 0.9% of total actuarial liability) and arises from demographic experience less favorable than anticipated by the actuarial assumptions. The largest component of the actuarial loss was due to actual salary increases for active members that were higher than expected. The average salary for members who were active in both the 2007 and 2008 valuations was 1.3% higher than expected, resulting in an actuarial loss of about $172 million. There was also a loss from retirement experience. While the number of retirements was less than expected, the members who retired had higher than average liabilities, resulting in an actuarial loss.

The change in the unfunded actuarial liability between June 30, 2007 and 2008 is shown below (in millions):

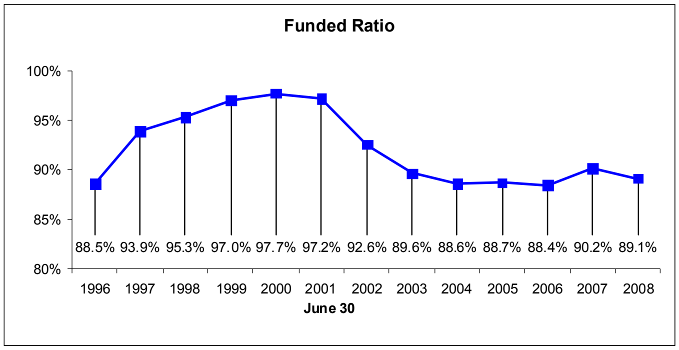
Unfunded Actuarial Liability, June 30, 2007	$	2,266
• Expected increase from amortization method	+	44
• Expected increase from contributions below actuarial rate	+	127
• Investment experience	+	5
• Liability and other experience	+	214
• Change in split service methodology	+	3
• Benefit enhancements (transfers among membership groups)	+	6
Unfunded Actuarial Liability <u>before</u> FED transfer, June 30, 2008	$	2,665
• FED Transfer	+	0
Unfunded Actuarial Liability <u>after</u> FED transfer, June 30, 2008	$	2,665



The dollar amount of the UAL has grown over the past several years due to numerous factors including actual versus expected experience, assumption changes, benefit changes and contributions below the actuarial 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 status, the ratio of the actuarial value of assets to the actuarial liability. The funded status information is shown below (in millions).

	6/30/04	**6/30/05**	**6/30/06**	**6/30/07**	**6/30/08**
Funded Ratio	88.6%	88.7%	88.4%	90.2%	89.1%
Unfunded Actuarial Liability (UAL)	$2,176	$2,289	$2,507	$2,266	$2,665



While there has been a decline in the funded ratio since 2000, it has stabilized around 90%.

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.

Although the entry age normal cost method develops a normal cost rate that is expected to be relatively level, it will fluctuate from year to year depending on the demographic composition of the active members. This year as in past years, the normal cost rate for regular members increased slightly from 9.80% to 9.84% due to changes in the demographic composition of the regular membership group.

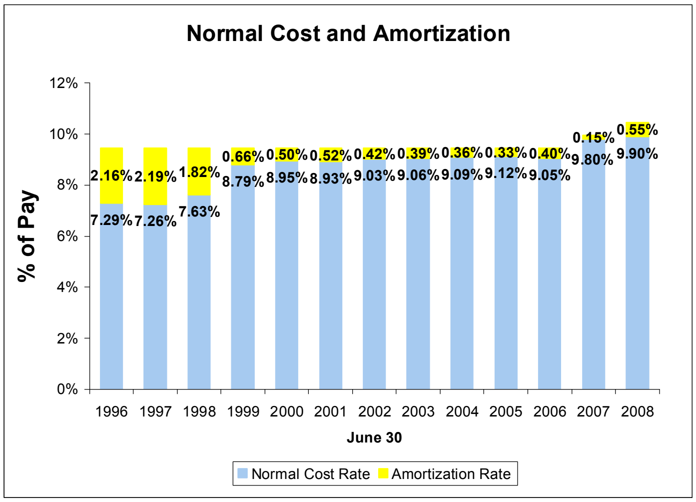
In 2006 and 2008, legislation was passed that increased the statutory contribution rate for regular members as shown in the table below:

Contribution Rates			
Time Period	**Member**	**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 and later	Actuarially Determined*		

*May not change by more than 0.50% per year.

The higher contribution rates result in higher benefits for members who elect a refund of contributions because the amount of employer money refunded is higher. As a result, the normal cost rate for regular members increased 0.06% from 9.84% to 9.90%.

Even with the 0.50% increase in the statutory contribution rate this year, only a small part of the total contribution rate is available to fund the UAL. If future increases in the statutory contribution rate for regular members are considered, higher contributions are available to fund the UAL. However, given the return on the market value of assets for FY2008 of -1.33%, preliminary projections indicate that additional increases beyond FY2011 will be necessary for the actual contribution rate to reach the actuarial contribution rate. These projections are based on the projection model prepared in conjunction with the 2007 valuation. Updated estimates will be run once the 2008 model has been completed. The actuarial contribution rates in years after FY2011 will be heavily dependent on future investment experience, especially that which occurs in the next few years. The situation should continue to be monitored closely.



This graph shows the normal cost rate and the contribution rate available to fund the UAL based on the statutory contribution rate applicable for that plan year.

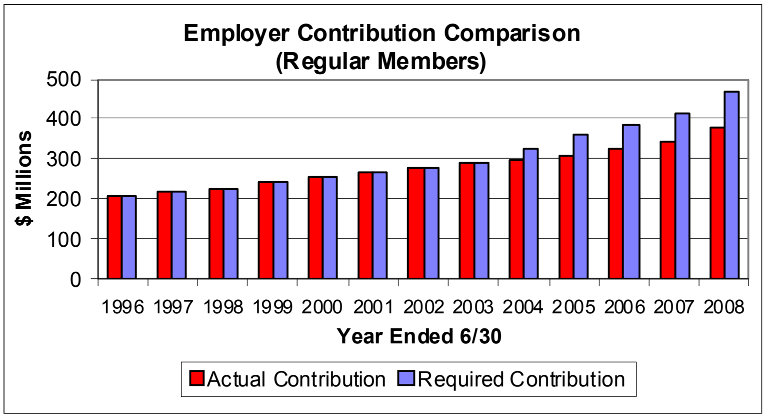
Over the past decade, the normal cost rate has generally increased as a result of benefit improvements, actuarial assumption and method changes, and the increase in entry age. This has left a small portion of the contributions to pay down the UAL.

This valuation calculates the actuarially determined contribution rates effective July 1, 2009 for the year ending June 30, 2010. Most IPERS members (regular members who represent 95% of total active members) have historically contributed 3.7% of pay and employers have contributed 5.75%, for a total of 9.45%. The regular members contribute according to the Schedule shown earlier in this section of the report. 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:

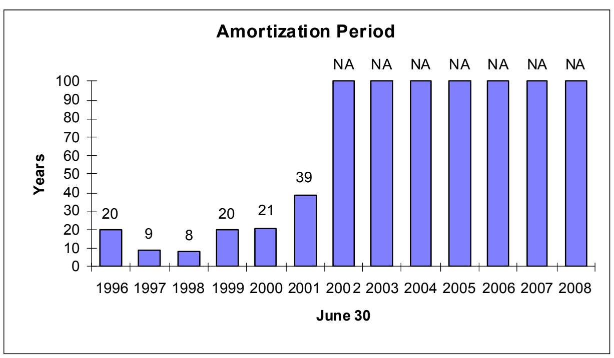
Contribution Rate for FYE 2010	Regular Membership	Special Service 1	Special Service 2
1. Total Actuarial Contribution Rate	12.34%	15.24%	15.34%
2. Member Contribution Rate	4.30%	7.62%	6.14%
3. Employer Contribution Rate (1) – (2)	8.04%	7.62%	9.20%
4. Employer Statutory Contribution Rate	6.65%	7.62%	9.20%
5. Shortfall (3) – (4)	1.39%	0.00%	0.00%

The following graph shows the total actuarially required employer contribution for regular members compared to the amount actually received in the year. The actuarially required contribution equals the System's normal cost and an amortization payment of the unfunded actuarial liability over 30 years.



IPERS adopted its Funding Policy in 1996 (see Appendix D for a copy of the Funding Policy). The purpose of the Funding Policy is to provide a basis for the evaluation of the System's funded status and to provide a set of safeguards to help ensure the financial solvency of the System. The Funding Policy defines the term "fully funded" to mean the current actuarial value of assets plus the present value of future expected contributions is equal to or greater than the present value of future benefit payments. There is an additional requirement that the amortization period not exceed 30 years in order for the System to be "fully funded".

Based on the current UAL amount and amortization payment for FY10, the amortization period is infinite. In order for the System to be "fully funded" in the current valuation (the amortization period to be 30 years), the resulting contribution rate would need to increase by 1.39% to 12.34% of payroll. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2008, and applies only for the fiscal year beginning July 1, 2009. The rate necessary for the System to continue to be "fully funded" 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.



Based on the statutory contribution rate, the period to amortize the UAL has been infinite in the last seven valuations. Future investment experience will have a significant impact on whether the years to amortize fall below 30 in future valuations. As the contribution rate increases in future years, additional funds will be available to finance the UAL and the expectation is that the years to amortize will eventually be a finite number again.

SUMMARY

The 2008 valuation results reflect several changes from the prior valuation. More detailed valuation data for split service members permitted a refinement in the valuation procedures for these members to be implemented with the 2008 valuation. The overall impact on the System's funding was not material, but the new procedures provide a better match of the assets and liabilities of each membership group.

Legislation passed in 2008 moved four groups from regular membership to the SS2 group. As a result, the number of active members in that group increased by around 2,200, over a 45% increase in the size of the group. The net impact of these members moving to SS2 was a lower funded ratio and a higher actuarial contribution rate.

The System's funded ratio continues to hold steady near 90%. If the contribution rate were determined in this year's valuation with an amortization period of 30 years (which is the requirement in IPERS' Funding Policy for the System to be "fully funded"), the FYE 2010 contribution rate would be 12.34% of payroll, as compared to the statutory FYE 2010 contribution rate of 10.95%. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2008, and applies only for the fiscal year beginning July 1, 2009. The rate necessary for the System to continue to be "fully funded" 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.

The 2006 Legislature passed legislation that increased the statutory contribution rate from 9.45% to 11.45% over a four year period commencing July 1, 2007. This change made a significant improvement to the long-term funding of the System by creating a larger contribution amount to be used to pay off the unfunded actuarial liability. Legislation passed in 2008 provides IPERS with the authority to implement actuarially determined contribution rates for regular members, but the change in the contribution rate cannot exceed 0.50% per year. This should also strengthen the long-term funding of the System.

Unfavorable investment experience for FY2008 effectively eliminated the difference between the market and actuarial value of assets. Market experience in the first few months of FY2009 has also been unfavorable. Given this situation, it is unlikely that a contribution rate of 11.45% will be sufficient to fund the System in the short-term and increases beyond FY2011 will probably be necessary. Actual investment return in future years will have a dramatic impact on the long-term actuarial contribution rate necessary to finance the benefit structure.

We conclude this executive summary by presenting comparative statistics and actuarial information on both the June 30, 2008 and June 30, 2007 valuations. All figures shown include the regular membership and the two Special Service Groups.

SUMMARY OF HISTORICAL CHANGE
IN
IPERS UNFUNDED ACTUARIAL LIABILITY

($Millions)	1996-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Unfunded Actuarial Liability (BOY[1])	1,161	661	555	390	327	441	1,255	1,867	2,176	2,289	2,507	2,266
• **Expected Change**												
− **From Amortization Method**	(1)	(43)	(37)	(32)	(22)	3	24	36	42	22	49	44
− **Contributions less than Actuarial Rate**							61	87	103	125	118	127
• **Investment Experience**	(474)	(716)	(730)	(781)	(81)	409	402	75	(89)	(235)	(622)	5
• **Liability and Other Experience**	(25)	118	(211)	515	217	258	125	82	57	242	187	214
• **Benefit Enhancements**	0	342	0	142	0	3	0	29	0	0	0	6
• **Change in Assumptions/Methods**	0	0	587	0	0	141	0	0	0	64	27	3
• **FED Transfer**	0	193	226	93	0	0	0	0	0	0	0	0
Unfunded Actuarial Liability (EOY[2])	661	555	390	327	441	1,255	1,867	2,176	2,289	2,507	2,266	2,665
Amortization Years	9	8	20	21	39	*	*	*	*	*	*	*

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

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
PRINCIPAL RESULTS

	June 30, 2008	June 30, 2007	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Members (excluding Retired/Reemployed)	167,823	165,216	1.6
- Projected Payroll for Upcoming Fiscal Year	$6,464M	$6,049M	6.9
- Average Salary	$38,515	$36,615	5.2
2. Inactive Membership			
- Number Not in Pay Status	64,348	62,291	3.3
- Number of Retirees/Beneficiaries	87,309	84,770	3.0
- Average Annual Benefit	$11,927	$11,404	4.6
ASSETS AND LIABILITIES			
1. Net Assets (excluding FED reserve)			
- Market Value	$21,844M	$22,624M	(3.4)
- Actuarial Value	21,857M	20,760M	5.3
2. Projected Liabilities			
- Retired Members	$9,923M	$9,217M	7.7
- Inactive Members	510M	483M	5.6
- Active Members	19,235M	18,088M	6.3
- Total Liability	29,668M	27,788M	6.8
3. Actuarial Liability	$24,522M	$23,026M	6.5
4. Unfunded Actuarial Liability	$2,665M	$2,266M	17.6
5. Funded Ratio (Actuarial Value Assets/Actuarial Liability)	89.13%	90.16%	(1.1)
SYSTEM CONTRIBUTIONS			
Statutory Contribution Rate*	10.95%	10.45%	4.8
Years Required to Amortize Unfunded Actuarial Liability	Infinite	Infinite	N/A
Total Actuarial Contribution Rate	12.34%	12.02%	2.7
Member Contribution Rate	4.30%	4.10%	4.9
Employer Contribution Rate	8.04%	7.92%	1.5

M = ($)Millions

* Contribution rates for certain special groups (5% of the membership) are not fixed by statute but are actuarially determined each year. The statutory rate is increasing starting with the fiscal year beginning July 1, 2007.

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SECTION II

SYSTEM ASSETS

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SECTION II

SYSTEM ASSETS

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 rates. These values represent the "snapshot" or fair value of System assets as of the valuation date.

Actuarial Value of Net Assets

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 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, 2008		June 30, 2007	
	Amount	% of Total	Amount	% of Total
Cash & Equivalents	$ 183	0.8%	$ 122	0.5%
Capital Assets, Receivables and Payables	(2,266)	(10.1)	(3,510)	(15.1)
Domestic Equity	5,856	26.2	7,210	31.1
International Equity	3,184	14.2	3,606	15.5
Fixed Income	9,636	43.1	9,798	42.2
Real Estate	2,073	9.3	2,075	8.9
Private Equity/Debt	2,504	11.2	1,947	8.4
Securities Lending Collateral Pool	1,199	5.3	1,969	8.5
TOTAL NET ASSETS	$ 22,369	100.0%	$ 23,217	100.0%
FED Reserve (Before current year transfer)	(525)		(593)	
Current Year FED Transfer Payable	0		0	
Net Retirement System Assets	$ 21,844		$ 22,624	

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, 2007	$21,477,807,633	$380,178,660	$766,400,722	$592,780,931	$23,217,167,946
REVENUE					
Employer contributions	353,470,318	6,301,171	17,645,261	0	377,416,750
Member contributions	227,847,375	6,301,171	11,749,126	0	245,897,672
Service purchase	10,467,989	95,210	311,926	0	10,875,125
Investment income	(278,413,874)	(4,972,414)	(10,099,977)	(7,376,735)	(300,863,000)
Total Revenue	$313,371,808	$7,725,138	$19,606,336	($7,376,735)	$333,326,547
DISBURSEMENTS					
Benefit payments	1,006,330,127	12,521,916	17,720,840	59,512,875	1,096,085,758
Member and employer refunds	31,993,194	1,438,562	2,775,468	0	36,207,224
Administrative expenses	9,560,612	61,757	263,098	0	9,885,467
Investment expenses	36,344,925	649,113	1,318,479	962,980	39,275,497
Total Expenses	$1,084,228,858	$14,671,348	$22,077,885	$60,475,855	$1,181,453,946
PRELIMINARY NET ASSETS ON JUNE 30, 2008	$20,706,950,583	$373,232,450	$763,929,173	$524,928,341	$22,369,040,547
TRANSFERS					
Membership changes	(99,096,273)	6,668,387	92,427,886	0	0
FED Reserve	0	0	0	0	0
ADJUSTED NET ASSETS ON JUNE 30, 2008	$20,607,854,310	$379,900,837	$856,357,059	$524,928,341	$22,369,040,547

* 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, 2007	$19,709,190,040	$348,068,638	$702,369,737	$20,759,628,415
2. Actual Receipts/Disbursements				
a. Contributions	591,785,682	12,697,552	29,706,313	634,189,547
b. Benefit Payments and Refunds	1,038,323,321	13,960,478	20,496,308	1,072,780,107
c. Net Change	(446,537,639)	(1,262,926)	9,210,005	(438,590,560)
3. Expected Value of Assets as of June 30, 2008 [(1) x 1.075] + [(2c) x $(1.075)^{.5}$]	20,724,399,215	372,864,356	764,596,604	21,861,860,175
4. Preliminary Market Value of Assets as of June 30, 2008	20,706,950,583	373,232,450	763,929,173	21,844,112,206
5. Difference Between Market and Expected Values (4) - (3)	(17,448,632)	368,094	(667,431)	(17,747,969)
6. Preliminary Actuarial Value of Assets as of June 30, 2008 (3) + [(5) x 25%]	20,720,037,057	372,956,380	764,429,746	21,857,423,183
7. Transfers				
a. Membership changes	(99,156,658)	6,672,451	92,484,207	0
b. FED Reserve	0	0	0	0
8. Actuarial Value of Assets as of June 30, 2008	$20,620,880,399	$379,628,831	$856,913,953	$21,857,423,183
9. Determination of Corridor				
a. 80% of Market Value of Assets	16,486,283,448	303,920,669	685,085,647	17,475,289,764
b. 120% of Market Value of Assets	24,729,425,173	455,881,004	1,027,628,470	26,212,934,647
c. Limited Actuarial Value of Assets as of June 30, 2008	20,620,880,399	379,628,831	856,913,953	21,857,423,183

* 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%

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.

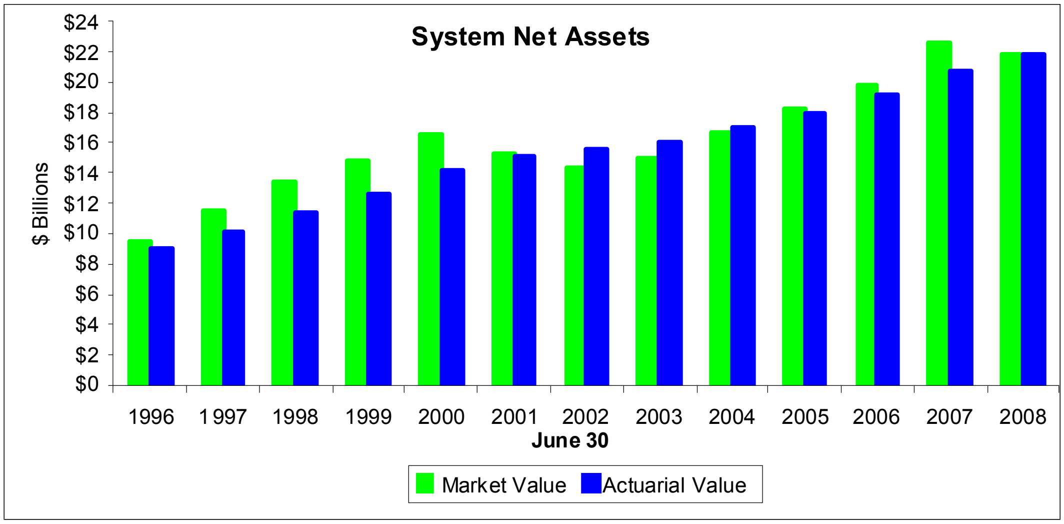

EXHIBIT 5

SUMMARY OF FAVORABLE EXPERIENCE DIVIDEND RESERVE

Market Value of FED Reserve as of June 30, 2008	$	524,928,341
Transfer to FED Payable on January 15, 2009 Based on June 30, 2008 Valuation Results	$	0
Total Value of FED Reserve as of June 30, 2008	$	524,928,341

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, 2008 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 sufficient to make payments through the dates shown below.

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

	Maximum*		Expected**	
2009	$191.6		$68.3	
2010	219.7		78.3	
2011	175.3	***	89.3	
2012			101.1	
2013	-		113.9	
2014	-		127.5	
2015	-		113.5	***
2016	-		-	

* 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 improvements, 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.

For the regular membership, once the amount of the UAL has been calculated the period over which the current statutory contribution rate (less the normal cost rate) will amortize the UAL is determined. For the Special Service groups, who are in a surplus funding position, the surplus is amortized over 30 years. The resulting payment is then applied to reduce the contribution rate. For all groups 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.

The 2008 valuation reflects several changes from the prior valuation, which are discussed in the following paragraphs. For several years, IPERS and Milliman have discussed possible refinements in the valuation process to improve the calculation of liabilities for members who have worked in more than one of the three membership groups, i.e. Regular, Special Service 1 (SS1) and Special Service 2 (SS2). These members are referred to as "split service members". This issue was also raised in the actuarial audit as a possible improvement to the valuation process and is the last of the audit recommendations to be implemented. Historically, the valuation data provided to the actuary did not provide specific detail with respect to a member's service and all service had to be assumed to be in one membership group. With IPERS' new information system and improved data quality, the appropriate service credit from each membership group can now be provided in the valuation data. The detailed data allows for a more refined measurement of the benefits and liabilities of the membership groups and produces a consistent valuation of liabilities and allocation of costs. The change in the valuation procedures for split service members impacted the unfunded actuarial liability of each group as follows:

Regular	$ 35 M
Special Service 1	(14)M
Special Service 2	(18)M
Total System	$ 3 M

With the improvement in the processing of split service members, the assets and liabilities for each member now reside in their current membership group. Effective with the June 30, 2008 valuation, a transfer of assets will be performed as of June 30th for all members 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. 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.

Legislation passed in 2008 transferred four groups - (1) Emergency Medical Service (EMS) providers, (2) County Jailers, (3) County Attorney Investigators, and (4) National Guard Installation Security Officers - from regular membership to Special Service Group 2 for future service only. Also, there was a reclassification of seventy-seven (77) members of the Department of Corrections which transferred them to the SS2 group. These combined transfers increased the active member count of the SS2 group from 4,823 to 7,062. The net impact of the transfers was a decrease in the UAL of the regular members of $16 million and a reduction of surplus assets of the SS1 group of $2 million and the SS2 group of about $20 million.

EXHIBIT 6

PRESENT VALUE OF FUTURE BENEFITS
as of June 30, 2008

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	$16,094,362,308	$273,931,338	$628,711,209	$16,997,004,855
Death benefits	285,042,272	4,994,796	23,015,204	313,052,272
Termination benefits	999,330,149	37,501,758	160,506,685	1,197,338,592
Disability benefits	485,465,899	38,061,916	203,953,383	727,481,198
Inactive Members				
Vested members	459,295,239	5,187,074	17,132,934	481,615,247
Nonvested members	27,835,674	103,923	516,912	28,456,509
Retired Members and Beneficiaries	9,611,150,768	119,881,091	191,726,385	9,922,758,244
Total Present Value of Future Benefits	$27,962,482,309	$479,661,896	$1,225,562,712	$29,667,706,917

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

EXHIBIT 7

UNFUNDED ACTUARIAL LIABILITY
as of June 30, 2008

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
1. Present Value of Future Benefits	$27,962,482,309	$479,661,896	$1,225,562,712	$29,667,706,917
2. Present Value of Future Normal Costs	4,629,710,994	105,595,535	410,183,799	5,145,490,328
3. Actuarial Liability (1) - (2)	$23,332,771,315	$374,066,361	$815,378,913	$24,522,216,589
4. Actuarial Value of Net Assets	20,620,880,399	379,628,831	856,913,953	21,857,423,183
5. Unfunded Actuarial Liability (3) - (4)	$2,711,890,916	($5,562,470)	($41,535,040)	$2,664,793,406

* 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, 2008 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 experienced a loss for the year so no transfer is to be made this year.

1. June 30, 2007 Unfunded Actuarial Liability	$	2,266,485,367
2. Normal Cost as of June 30, 2007		602,131,089
3. Employer and Member Contributions*		623,314,422
4. Change due to new split service methodology		2,671,655
5. Change due to benefit enhancements (membership transfers)		6,049,505
6. Expected Unfunded Actuarial Liability as of June 30, 2008 $[(1) + (2)] * 1.075 - [(3) * (1.075)^{.5}] + (4) + (5)$		2,446,217,702
7. Actual Unfunded Actuarial Liability as of June 30, 2008		2,664,793,406
8. (Gain)/loss (7) - (6)		218,575,704
9. Portion of gain to transfer to FED		N/A
10. Amount of Actuarial Value of Assets to transfer to FED	$	0
11. Market value of FED transfer	$	0

* Does not include service purchases

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SECTION IV

SYSTEM CONTRIBUTIONS

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SECTION IV

SYSTEM CONTRIBUTIONS

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.

Although the entry age normal cost method develops a normal cost rate that is expected to be relatively level, it will fluctuate from year to year depending on the demographic composition of the active members. This year, as in past years, the normal cost rate for regular members increased slightly from 9.80% to 9.84% due to changes in the demographic composition of the regular membership group.

Legislation was passed in 2006 and 2008 that increases the statutory contribution rate for regular members as shown in the table below:

	Contribution Rates		
Time Period	**Member**	**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 and later	Actuarially Determined*		

*May not change by more than 0.50% per year

The increased contribution rates for regular members result in slightly larger benefits for members who elect a refund of contributions because the amount of employer refund increases. Therefore, the normal cost rate for regular members was 9.90%, while it would have been 9.84% in the absence of this increase.

For several years, IPERS and Milliman have discussed possible refinements in the valuation process to improve the calculation of liabilities for members who have worked in more than one of the three membership groups, i.e. regular, Special Service 1 (SS1) and Special Service 2 (SS2). These members are referred to as "split service members". This issue was also raised in the actuarial audit as a possible improvement to the valuation process and is the last of the audit recommendations to be implemented. Historically, the valuation data provided to the actuary did not provide specific detail with respect to a member's service and all service had to be assumed to be in one membership group. With IPERS' new information system and improved data quality, the appropriate service credit from each membership group can now be provided in the valuation data. The detailed data allows for a more refined measurement of the benefits and liabilities of the membership groups and produces a consistent valuation of liabilities and allocation of costs. The change in the valuation procedures for split service members had no material impact on the total System unfunded actuarial liability.

With the improvement in the processing of split service members, the assets and liabilities for each member now reside in their current membership group. Effective with the June 30, 2008 valuation, a transfer of assets was performed on June 30th for all members whose membership group changed since the prior valuation. The purpose behind this change was to better match the assets and liabilities for each 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.

Legislation passed in 2008 transferred four groups - (1) Emergency Medical Service (EMS) providers, (2) County Jailers, (3) County Attorney Investigators, and (4) National Guard Installation Security Officers - from regular membership to Special Service Group 2 for future service only. Also, there was a reclassification of seventy-seven (77) members of the Department of Corrections which transferred them to SS2. These combined transfers increased the active member count of the SS2 group from 4,823 to 7,062. This large influx of members into SS2 resulted in a higher contribution rate for the SS2 group. The transfer of over 2,300 active members from the regular membership to SS2 had a significant, but not unexpected, impact on the funded status and actuarial contribution rate for SS2. Surplus assets were reduced by about $20 million as a result of the transfers and the normal cost rate increased by 0.35%. The combined impact of both of these items was an increase in the SS2 actuarial contribution rate of 1.10%. The actuarial contribution rate for SS2, which was 15.34% in this valuation, would have been 14.24% if these transfers had not occurred. Although these membership changes are effective July 1, 2008, they are reflected in this valuation because it is used to set the contribution rate for FY2010.

EXHIBIT 9

ACTUARIAL BALANCE SHEET
as of June 30, 2008

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
ASSETS				
Actuarial value of assets	$20,620,880,399	$379,628,831	$856,913,953	$21,857,423,183
Present value of future normal costs	4,629,710,994	105,595,535	410,183,799	5,145,490,328
Present value of future contributions to amortize unfunded actuarial liability	2,711,890,916	(5,562,470)	(41,535,040)	2,664,793,406
Total Net Assets	$27,962,482,309	$479,661,896	$1,225,562,712	$29,667,706,917
LIABILITIES				
Present Value of Future Benefits:				
Retired Members and Beneficiaries	$9,611,150,768	$119,881,091	$191,726,385	$9,922,758,244
Active Members	17,864,200,628	354,489,808	1,016,186,481	19,234,876,917
Inactive Members	487,130,913	5,290,997	17,649,846	510,071,756
Total Liabilities	$27,962,482,309	$479,661,896	$1,225,562,712	$29,667,706,917

* 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 members 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 statutory contribution rate is first applied to payment of the normal cost rate. The remaining contribution is used to amortize the unfunded actuarial liability as a level percentage of payroll, which determines the period necessary to amortize the unfunded actuarial liability. According to IPERS Funding Policy, the System is considered to be “fully funded” if the amortization period does not exceed 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2008 actuarial valuation and applies to the fiscal year beginning July 1, 2009 and ending June 30, 2010. The statutory contribution rate for the same period is 10.95%, reflecting the third of four scheduled increases provided by 2006 legislation.

		Regular Membership
1. FYE 2009 Contribution Rate		10.45%
2. Normal Cost Rate		9.90%
3. Contribution Rate Applied to Fund the UAL for FYE 2008 (1) - (2)		0.55%
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2008	$	2,711,890,916
5. Expected Payroll for FYE 2009	$	6,075,930,000
6. Projected UAL on June 30, 2009 [(4) x 1.075] - [(3) x (5) x $1.075^{.5}$]	$	2,880,634,614
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 2010 [(6) / (8)] x $(1.075)^{.5}$	$	154,465,541
10. Expected Payroll for FYE 2010 (5) x 1.04	$	6,318,967,200
11. UAL Contribution Rate for FYE 2010 (9) / (10)		2.44%
12. Actuarial Contribution Rate for FYE 2010 (2) + (11)		12.34%
13. Amortization Period Necessary to Finance UAL as a Level Percent of Payroll with Contribution Rate of 10.95% *		Cannot be amortized

* Assuming all actuarial assumptions are met in the future.

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 members 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/surplus payment. The payment to amortize the unfunded actuarial liability/(surplus) is determined as a level percentage of payroll, with an amortization period of 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2008 actuarial valuation and applies to the fiscal year beginning July 1, 2009.

		Special Service Group 1*			Special Service Group 2**	
1. FYE 2009 Contribution Rate		15.04%			14.08%	
2. Normal Cost Rate		15.57%			16.00%	
3. Contribution Rate Applied to Fund the UAL (1) - (2)		(0.53%)			(1.92%)	
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2008	$	(5,562,470)		$	(41,535,040)	
5. Expected Payroll for FYE 2009	$	85,900,987		$	301,839,734	
6. Projected UAL on June 30, 2009 [(4) x 1.075] - [(3) x (5) x $1.075^{.5}$]	$	(5,507,616)		$	(38,641,449)	
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 2010 [(6) / (8)] x $(1.075)^{.5}$	$	(295,330)		$	(2,072,034)	
10. Expected Payroll for FYE 2010 (5) x 1.04	$	89,337,026		$	313,913,323	
11. UAL Contribution Rate for FYE 2010 (9) / (10)		(0.33%)			(0.66%)	
12. Actuarial Contribution Rate for FYE 2010 (2) + (11)		15.24%			15.34%	
Employer Contribution Rate		7.62%	(50%)		9.20%	(60%)
Employee Contribution Rate		7.62%	(50%)		6.14%	(40%)

* Includes Sheriffs and Deputies

** Includes all other public safety members

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SECTION V

PLAN ACCOUNTING INFORMATION

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SECTION V

PLAN ACCOUNTING INFORMATION

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 MEMBERSHIP

	June 30, 2008	June 30, 2007
Active Employees:		
Vested	125,542	125,140
Not yet vested	42,281	40,076
Total active employees*	167,823	165,216
Retirees and beneficiaries currently receiving benefits:	87,309	84,770
Inactive vested members entitled to benefits but not yet receiving them:	27,626	26,435

*Retired/reemployed members are included in retiree counts, but not the active count. Counts are 8,523 for 2008 and 7,848 for 2007.

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]
6/30/03	$16,120,476,011	$17,987,374,960	$1,866,898,949	89.62%	$4,881,100,238	38.25%
6/30/04	16,951,942,539	19,128,410,606	2,176,468,067	88.62%	5,072,027,906	42.91%
6/30/05	17,951,490,071	20,240,098,667	2,288,608,596	88.69%	5,236,860,886	43.70%
6/30/06	19,144,036,519	21,651,122,419	2,507,085,900	88.42%	5,523,863,321	45.39%
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%

EXHIBIT 14

SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Actuarially Required Employer Contribution (ARC) is determined based on GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans. The dollar amount of 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 30-year amortization of the UAL from the actuarial valuation two years prior(the June 30, 2006 valuation sets the ARC for FY 08). 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**
6/30/03	$270,363,338	$5,670,239	$13,738,478	$289,772,054	99.2%	100.0%	100.0%	99.2%
6/30/04	309,006,609	5,489,797	14,263,836	328,760,242	90.3%	100.0%	100.0%	90.9%
6/30/05	341,552,685	6,236,611	15,391,729	363,181,025	84.7%	100.0%	100.0%	85.6%
6/30/06	364,424,911	6,228,675	16,888,833	387,542,419	82.7%	100.0%	100.0%	83.8%
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%

* 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 6/30/08	Retirees at 6/30/08	Total
2009	$ 131,055,000	$ 1,039,536,000	$ 1,170,591,000
2010	251,316,000	1,021,963,000	1,273,279,000
2011	375,149,000	1,003,207,000	1,378,356,000
2012	503,095,000	983,136,000	1,486,231,000
2013	637,030,000	961,754,000	1,598,784,000
2014	772,208,000	939,371,000	1,711,579,000
2015	906,177,000	915,694,000	1,821,871,000
2016	1,041,650,000	891,113,000	1,932,763,000
2017	1,178,292,000	865,248,000	2,043,540,000
2018	1,315,548,000	838,215,000	2,153,763,000
2019	1,450,665,000	810,783,000	2,261,448,000
2020	1,584,194,000	782,677,000	2,366,871,000
2021	1,715,155,000	753,734,000	2,468,889,000
2022	1,843,827,000	724,017,000	2,567,844,000
2023	1,970,365,000	693,582,000	2,663,947,000
2024	2,092,309,000	662,500,000	2,754,809,000
2025	2,209,493,000	630,841,000	2,840,334,000
2026	2,322,776,000	598,689,000	2,921,465,000
2027	2,432,373,000	566,135,000	2,998,508,000
2028	2,537,061,000	533,286,000	3,070,347,000

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

TABLE OF CONTENTS

RECONCILIATION OF ACTIVE MEMBERS

Below is a summary of the changes in active members (excluding retired re-employed members) between June 30, 2007 and June 30, 2008.

	Regular	Special Service Groups		
	Membership	Group 1	Group 2	Total
7/1/2007 Starting count	159,068	1,470	4,678	165,216
New actives	16,462	50	666	17,178
Returning actives	2,640	14	110	2,764
Nonvested Terminations	(5,518)	(10)	(69)	(5,597)
Elected Refund	(2,499)	(20)	(82)	(2,601)
Vested Terminations	(4,087)	(13)	(91)	(4,191)
Total Withdrawals	(12,104)	(43)	(242)	(12,389)
Deaths	(134)	(1)	(4)	(139)
Disability Retirements	(85)	(2)	(4)	(91)
AE Benefits	(453)	(1)	0	(454)
Early Retirements	(1,280)	0	0	(1,280)
Unreduced Retirements	(2,736)	(42)	(86)	(2,864)
Total Retirements	(4,554)	(45)	(90)	(4,689)
Other/transfer	(2,137)	75	1,944	(118)
6/30/2008 Ending count	159,241	1,520	7,062	167,823

HISTORICAL SUMMARY OF MEMBERS

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

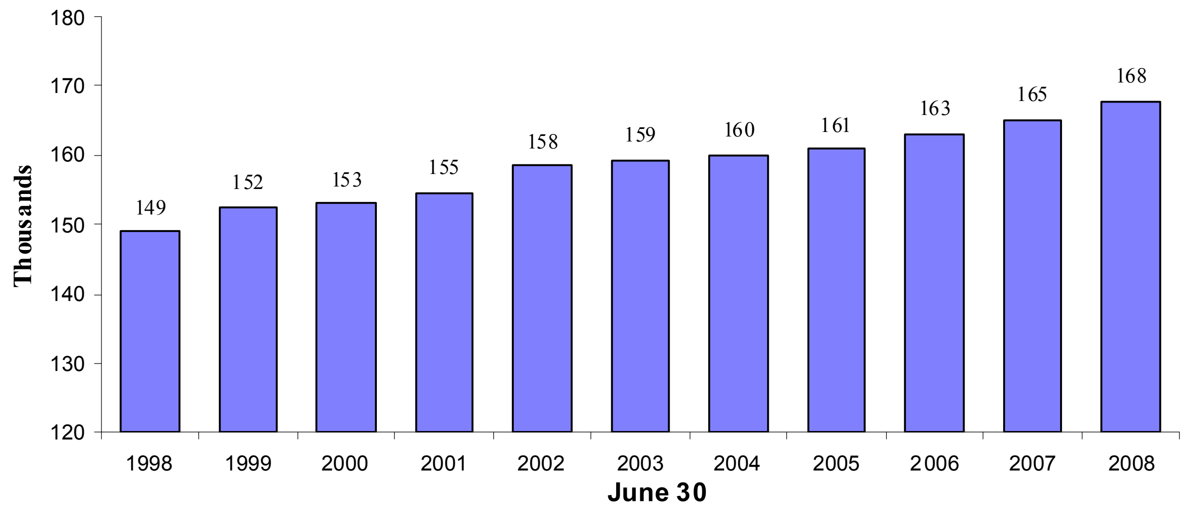
Valuation		Active Members						Number			
			Average								
Date June 30	Total Count	Number	Age	Entry Age	Service	Annual Pay ($)	Pay Increase	Retired Reemployed	Inactive Vested	Retired	Act/Ret Ratio
1991	206,105	135,104	43.7			21,885				49,881	2.71
1992	207,860	134,485	44.3			22,510	2.9%			51,247	2.62
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

Note: Retired count includes retired reemployed members.

SUMMARY OF ACTIVE MEMBERS

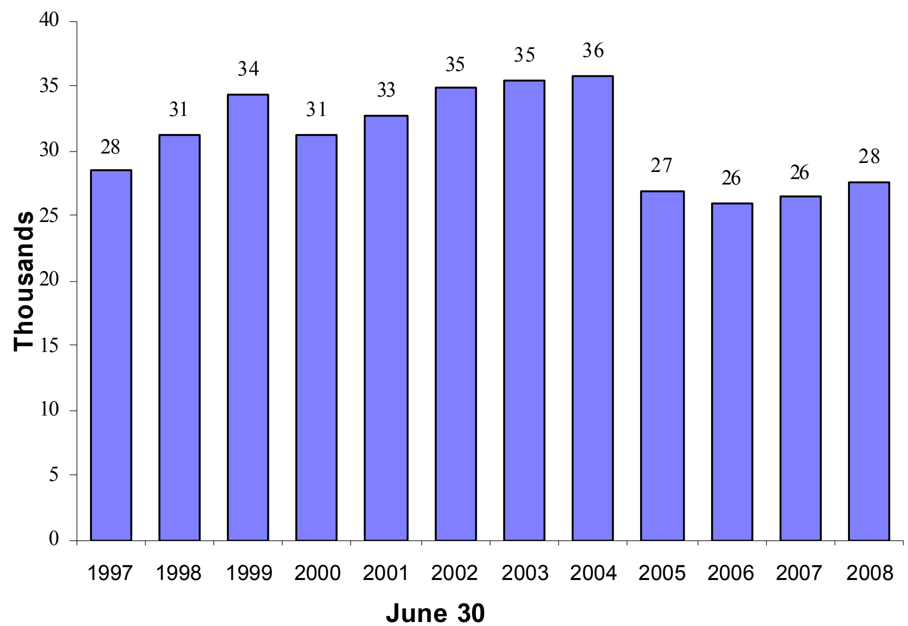
	Regular Membership	Special Service Groups Group 1	Group 2	Total 6/30/2008	Total 6/30/2007	Percent Change
Total Employees	159,241	1,520	7,062	167,823	165,216	1.6
Projected Covered Payroll* (millions)	$6,076	$86	$302	$6,464	$6,049	6.9
Average Age	45.9	41.4	41.9	45.7	45.7	0.0
Average Entry Age	34.3	26.9	31.6	34.1	34.0	0.3
Average Earnings*	$38,156	$56,514	$42,741	$38,515	$36,615	5.2
Retired Reemployed	8,461	12	50	8,523	7,848	8.6

*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.



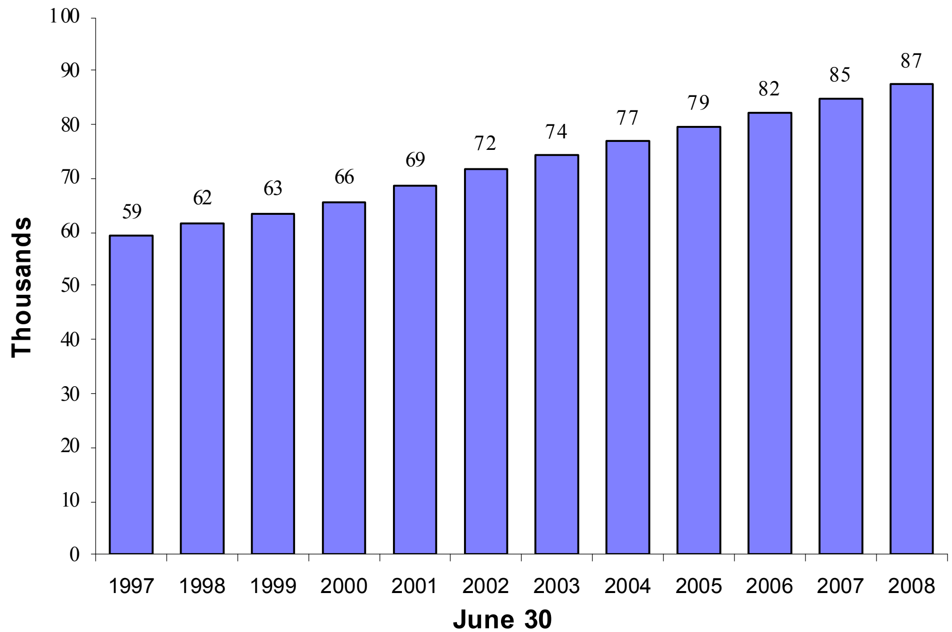
SUMMARY OF INACTIVE VESTED MEMBERS

Regular Membership	Special Service Group 1	Special Service Group 2	Total 6/30/2008	Total 6/30/2007	Percent Change
27,187	82	357	27,626	26,435	4.5%



SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES

Regular	Special Service		Total	Total	Percent
Membership	Group 1	Group 2	6/30/2008	6/30/2007	Change
85,893	442	974	87,309	84,770	3.0%



AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2008 FOR ACTIVE MEMBERS*

Males and Females - Regular Membership

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	6,226	13,814	120	22,624	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	6,346	13,981
25-29	9,823	26,820	2,973	34,921	53	33,845	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	12,849	28,724
30-34	5,902	25,995	5,752	39,066	1,769	43,680	19	34,289	0	NA	0	NA	0	NA	0	NA	0	NA	13,442	33,927
35-39	5,786	24,086	4,080	36,768	4,722	46,020	1,307	48,597	24	41,492	0	NA	0	NA	0	NA	0	NA	15,919	35,881
40-44	5,592	21,757	4,486	32,298	3,567	41,252	3,465	51,196	1,271	52,266	57	47,006	0	NA	0	NA	0	NA	18,438	35,807
45-49	5,227	21,996	4,864	29,574	4,456	35,903	3,170	44,439	3,508	53,103	1,964	52,484	207	46,407	0	NA	0	NA	23,396	36,701
50-54	4,171	22,369	4,034	29,677	4,149	34,589	3,614	40,244	3,127	48,157	3,628	54,850	2,798	53,531	111	48,304	0	NA	25,632	39,275
55-59	4,085	18,365	3,048	29,916	3,053	34,768	3,322	38,861	3,280	44,814	2,756	51,722	3,820	58,752	1,394	58,688	46	45,457	24,804	40,288
60-64	3,888	12,975	2,278	24,874	1,701	31,499	1,732	36,510	1,839	43,076	1,388	46,647	1,152	53,225	976	61,182	278	55,903	15,232	33,118
65-69	2,617	8,324	1,401	13,619	703	23,514	424	28,748	341	36,730	234	35,544	235	37,715	136	52,629	108	60,285	6,199	18,222
70 & over	2,765	9,604	1,871	10,124	583	9,420	130	13,731	40	20,606	14	25,215	18	35,926	11	30,588	13	56,769	5,445	10,225
Totals	56,082	20,434	34,907	30,813	24,756	37,517	17,183	42,727	13,430	47,942	10,041	51,859	8,230	55,242	2,628	58,744	445	55,912	167,702	33,887

*Including retired/reemployed members

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2008 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	27	40,167	1	39,027	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	28	40,127
25-29	89	40,222	74	48,363	3	59,841	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	166	44,206
30-34	41	43,022	118	50,744	67	54,514	1	53,986	0	NA	0	NA	0	NA	0	NA	0	NA	227	50,477
35-39	33	43,505	72	49,563	108	54,779	45	57,747	0	NA	0	NA	0	NA	0	NA	0	NA	258	52,399
40-44	13	45,957	30	50,555	64	54,133	98	56,920	51	56,244	1	67,715	0	NA	0	NA	0	NA	257	54,836
45-49	3	43,283	16	57,354	44	55,495	49	57,215	68	58,823	41	60,906	4	58,948	0	NA	0	NA	225	57,892
50-54	0	NA	11	57,228	7	50,113	25	54,365	53	58,677	57	61,874	56	59,685	0	NA	0	NA	209	58,940
55-59	12	19,689	3	56,845	4	41,810	18	52,406	16	52,197	25	56,459	21	60,548	15	68,817	0	NA	114	53,226
60-64	7	27,613	1	56,948	2	47,093	7	45,614	4	49,993	2	48,828	10	59,830	5	74,354	1	46,644	39	50,719
65-69	3	36,393	2	46,239	1	49,930	0	NA	0	NA	0	NA	0	NA	1	53,682	1	53,566	8	44,854
70 & over	1	57,088	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	57,088
Totals	229	40,118	328	50,482	300	54,389	243	56,197	192	57,362	126	60,324	91	59,868	21	69,415	2	50,105	1,532	53,092

*Including retired/reemployed members

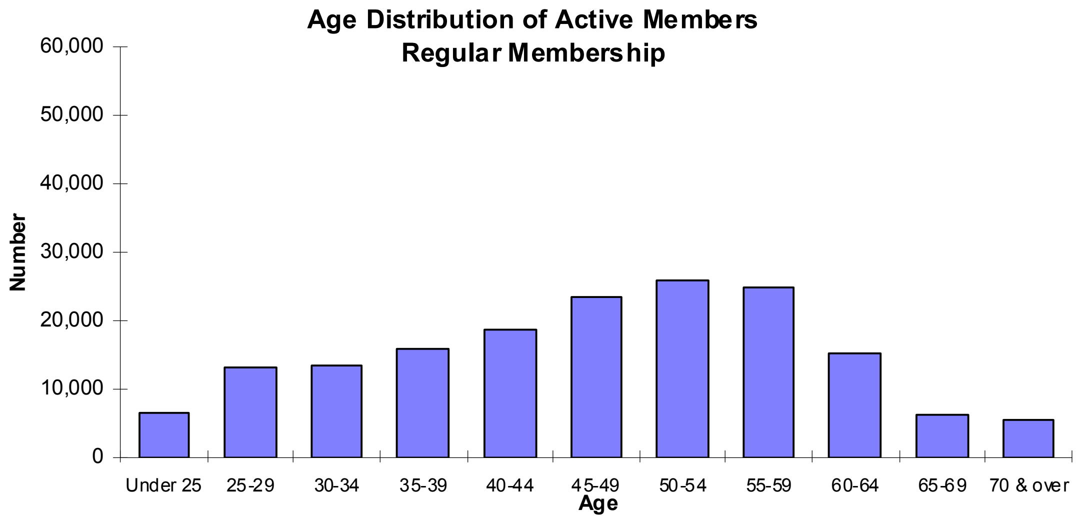
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2008 FOR ACTIVE MEMBERS*

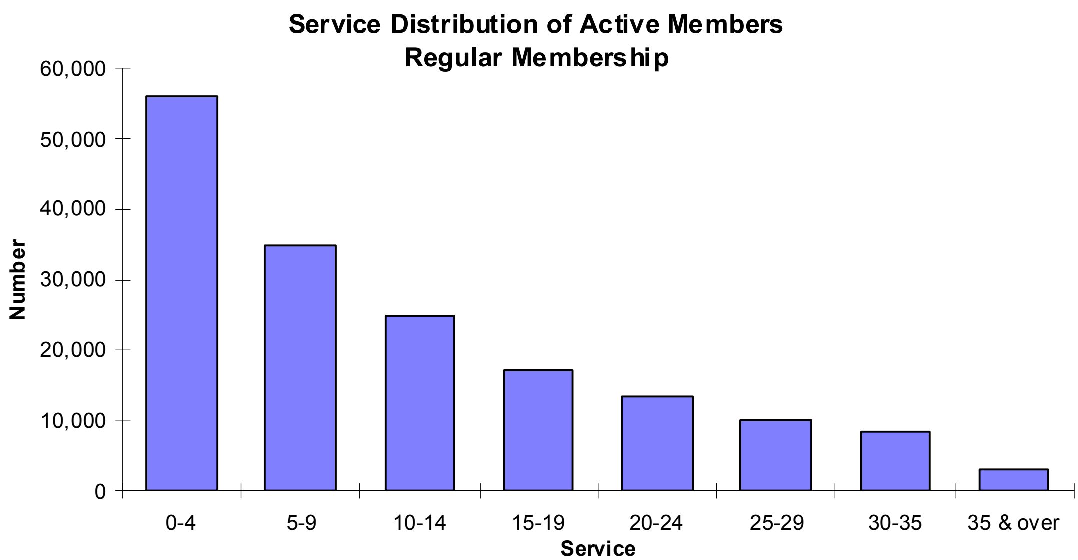
Males and Females - Special Service Group 2

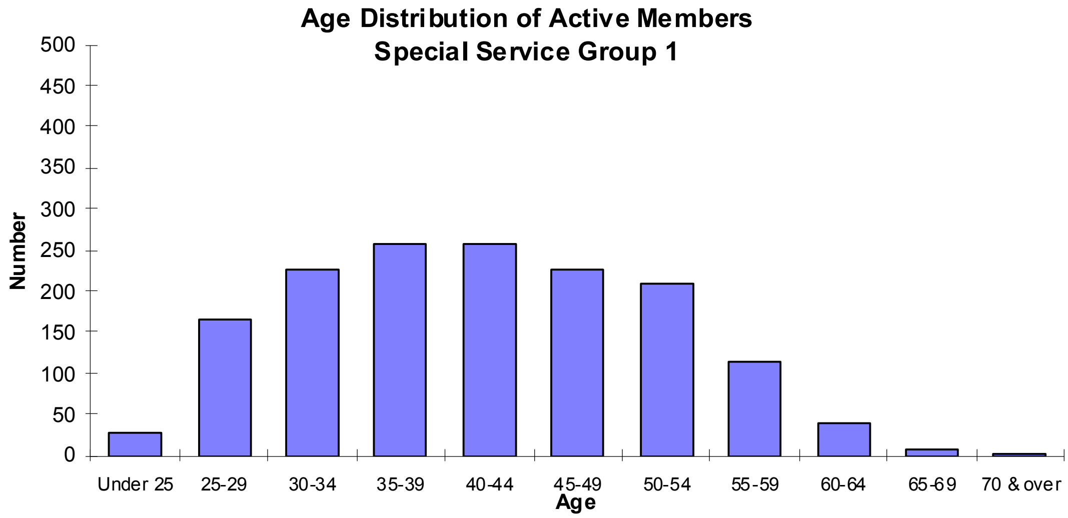
Years of Service

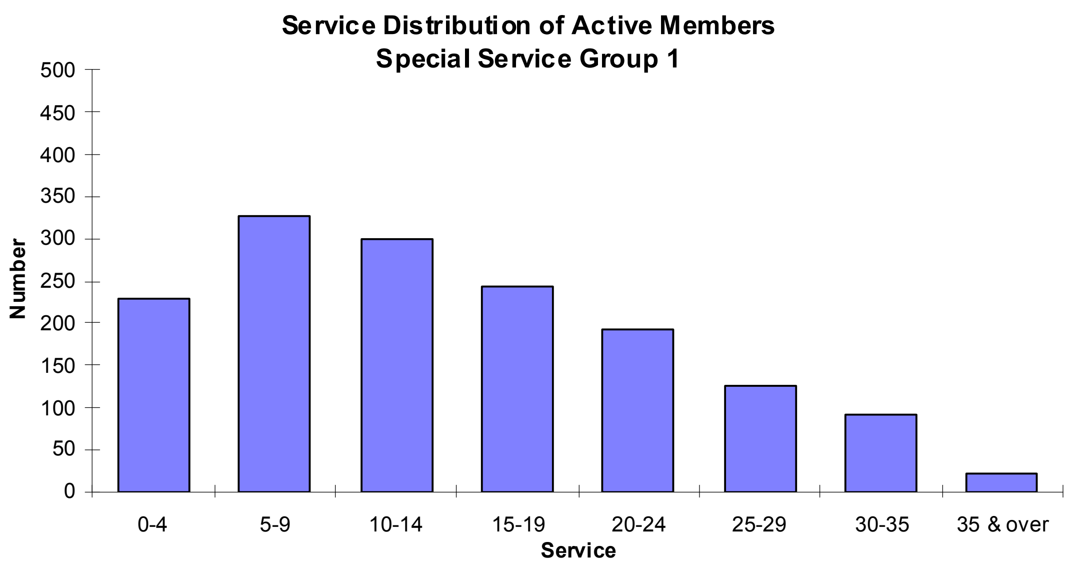
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	375	24,531	5	28,583	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	380	24,584
25-29	590	30,426	213	38,357	6	26,308	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	809	32,484
30-34	363	28,835	349	39,198	129	46,523	1	58,284	0	NA	0	NA	0	NA	0	NA	0	NA	842	35,875
35-39	320	27,114	294	39,668	317	47,691	92	50,920	2	48,154	0	NA	0	NA	0	NA	0	NA	1,025	39,256
40-44	215	27,281	235	37,176	237	47,085	181	52,302	82	52,501	0	NA	0	NA	0	NA	0	NA	950	41,613
45-49	181	27,581	184	37,307	231	46,728	139	47,390	179	52,973	122	53,645	7	52,620	0	NA	0	NA	1,043	43,752
50-54	128	27,300	175	38,059	154	43,096	141	48,108	126	53,651	172	56,179	76	56,269	1	56,624	0	NA	973	45,561
55-59	90	26,733	99	38,848	121	47,114	92	49,937	87	50,710	86	53,524	86	55,323	20	62,454	1	80,295	682	46,406
60-64	34	25,162	52	42,002	75	43,897	57	42,848	40	50,159	32	51,247	15	53,934	8	55,018	1	51,368	314	43,698
65-69	13	15,417	18	23,809	16	42,029	6	28,384	6	46,852	4	66,974	2	68,216	2	32,995	0	NA	67	33,182
70 & over	9	22,089	14	14,181	1	24,391	1	55,979	1	48,702	1	55,132	0	NA	0	NA	0	NA	27	21,539
Totals	2,318	27,742	1,638	38,201	1,287	46,276	710	49,075	523	52,374	417	54,613	186	55,634	31	58,447	2	65,832	7,112	39,896

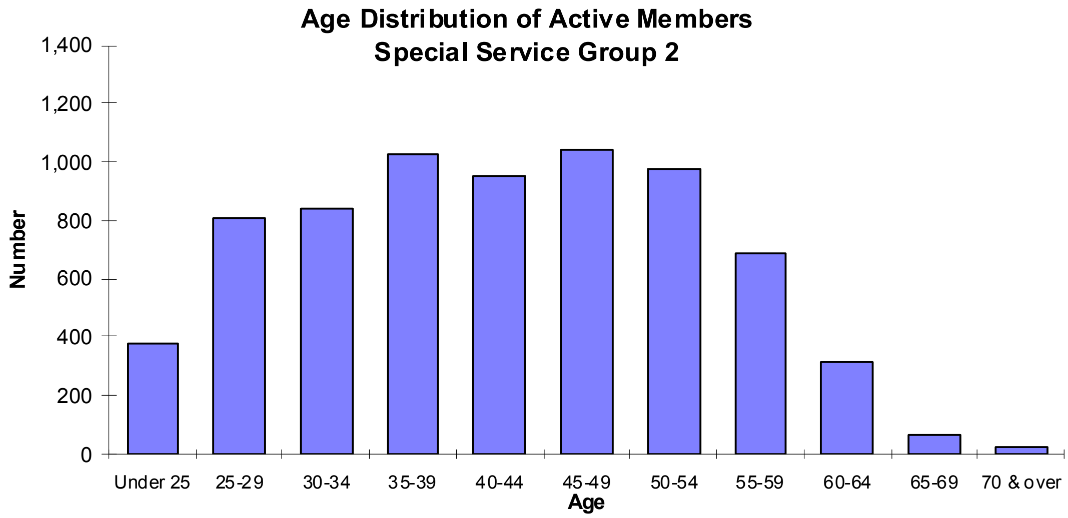
*Including retired/reemployed members

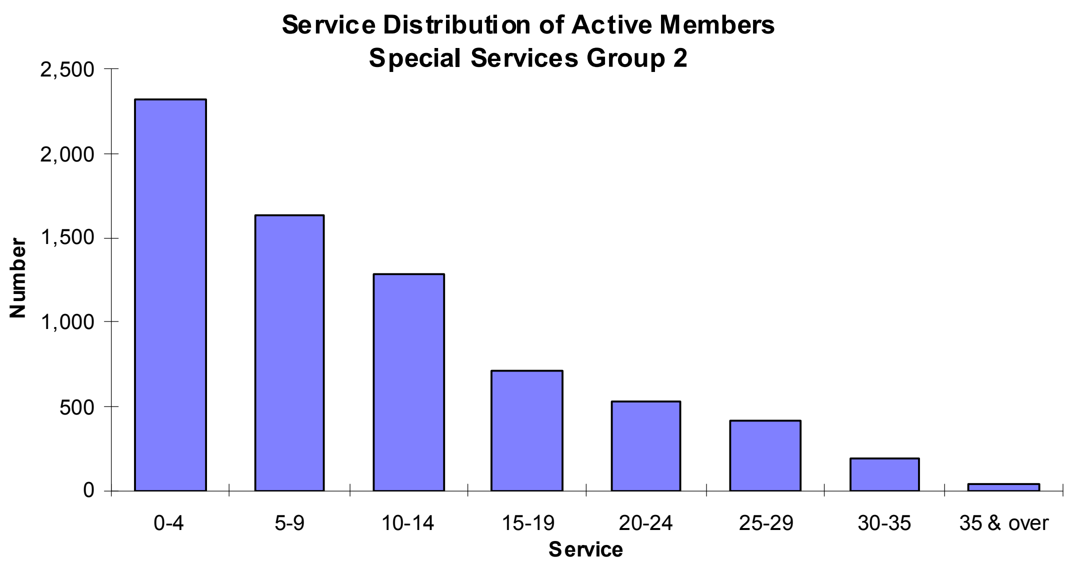

Age Distribution of Active Members
Regular Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


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
500
450
400
350
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
500
450
400
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
1,400
1,200
1,000
800
600
400
200
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
Special Services Group 2
2,500
2,000
1,500
1,000
500
0
Number
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, 2008 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. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	43	10,290	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	43	1,757
25-29	0	NA	432	20,473	3	7,260	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	435	4,109
30-34	0	NA	1,309	25,355	72	12,752	1	19,747	0	NA	0	NA	0	NA	0	NA	0	NA	1,382	6,649
35-39	0	NA	1,654	24,531	321	15,730	19	29,747	0	NA	0	NA	0	NA	0	NA	0	NA	1,994	8,711
40-44	0	NA	1,836	20,563	524	16,011	144	38,065	9	43,798	0	NA	0	NA	0	NA	0	NA	2,513	10,059
45-49	0	NA	2,411	18,152	882	15,826	372	31,463	147	38,849	30	33,925	0	NA	0	NA	0	NA	3,842	12,301
50-54	0	NA	2,685	17,794	1,275	15,832	651	28,212	352	34,067	129	40,415	37	37,527	0	NA	0	NA	5,129	15,963
55-59	2,181	9,478	2,316	16,488	1,033	18,160	521	24,883	231	30,369	101	36,642	26	45,390	3	35,000	0	NA	6,412	11,106
60-64	1,507	8,187	1,074	14,308	409	16,625	198	22,522	82	25,815	27	39,781	3	35,994	0	NA	0	NA	3,300	8,304
65-69	772	6,391	385	8,668	77	13,502	27	12,547	18	18,550	9	22,439	5	28,319	1	25,094	0	NA	1,294	4,050
70 & over	698	3,412	112	3,998	21	6,891	7	4,008	2	16,291	3	3,997	0	NA	0	NA	0	NA	843	1,115
Totals	5,158	7,818	14,257	18,916	4,617	16,302	1,940	27,797	841	32,812	299	37,526	71	39,693	4	32,523	0	NA	27,187	10,581

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2008 FOR INACTIVE VESTED MEMBERS

Males and Females - Special Service Group 1

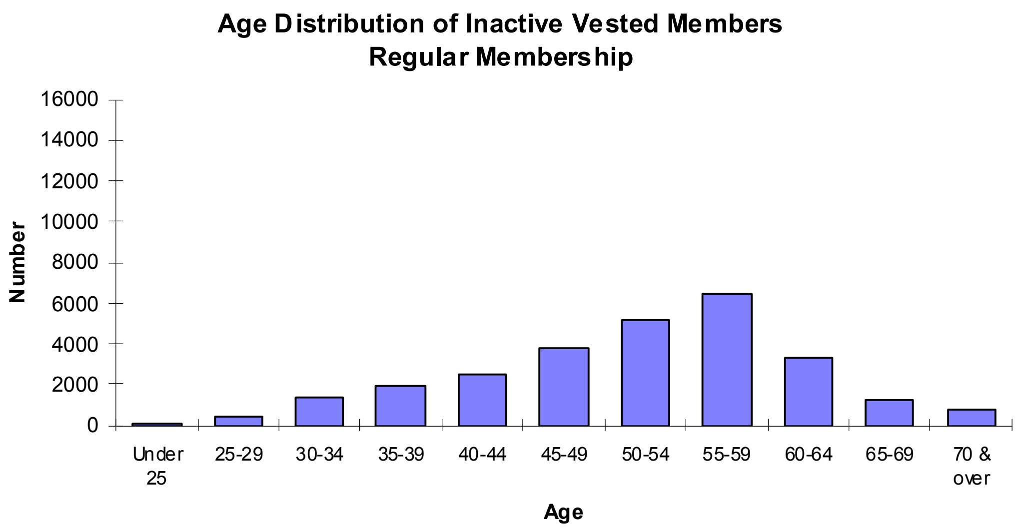
Years of Service

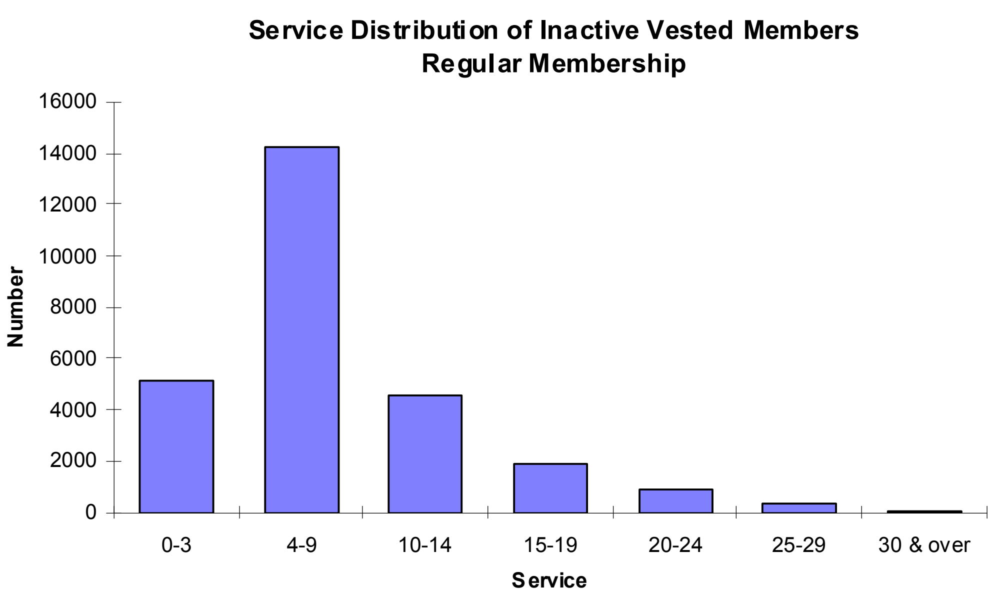
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
25-29	0	NA	4	30,271	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	4	12,832
30-34	0	NA	10	41,304	2	29,179	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	12	19,873
35-39	0	NA	4	42,001	8	33,502	1	51,903	1	64,540	0	NA	0	NA	0	NA	0	NA	14	36,253
40-44	0	NA	5	35,401	6	34,351	5	47,025	0	NA	0	NA	0	NA	0	NA	0	NA	16	37,144
45-49	0	NA	2	37,203	7	38,988	4	45,871	2	40,788	0	NA	0	NA	0	NA	0	NA	15	50,250
50-54	0	NA	5	22,698	3	35,395	3	27,245	3	33,400	2	46,067	0	NA	0	NA	0	NA	16	50,213
55-59	0	NA	3	33,420	0	NA	1	18,420	0	NA	0	NA	0	NA	0	NA	0	NA	4	19,006
60-64	1	1,138	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	111
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	1	1,138	33	35,372	26	35,061	14	40,762	6	41,053	2	46,067	0	NA	0	NA	0	NA	82	36,890

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2008 FOR INACTIVE VESTED MEMBERS

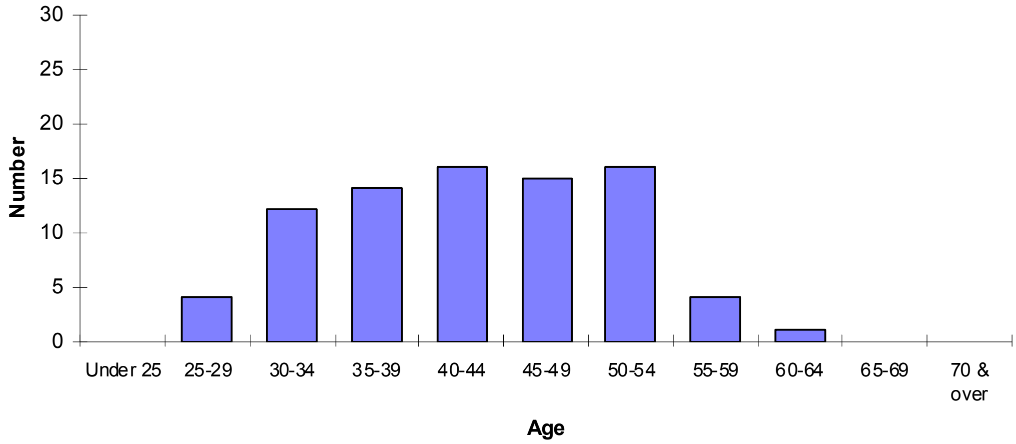
Males and Females - Special Service Group 2

	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. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	1	935	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	379
25-29	0	NA	17	19,361	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	17	5,761
30-34	0	NA	37	22,235	3	20,468	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	40	9,541
35-39	0	NA	44	19,538	15	18,659	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	59	11,585
40-44	0	NA	30	24,068	19	21,453	4	22,478	1	40,529	0	NA	0	NA	0	NA	0	NA	54	17,294
45-49	0	NA	35	17,419	17	27,289	4	31,516	6	38,807	1	51,693	0	NA	0	NA	0	NA	63	22,249
50-54	0	NA	23	18,928	15	21,089	12	36,065	9	41,455	5	43,440	5	59,270	0	NA	0	NA	69	38,615
55-59	7	17,873	16	14,433	9	20,511	3	20,457	3	39,648	1	43,643	0	NA	0	NA	0	NA	39	18,803
60-64	4	15,600	4	27,433	1	2,410	1	54,147	0	NA	0	NA	0	NA	0	NA	0	NA	10	9,834
65-69	1	1,717	0	NA	2	12,522	1	1,147	0	NA	0	NA	0	NA	0	NA	0	NA	4	6,608
70 & over	0	NA	1	1,567	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	750
Totals	12	15,769	208	19,816	81	21,496	25	30,617	19	40,285	7	44,648	5	59,270	0	NA	0	NA	357	19,671

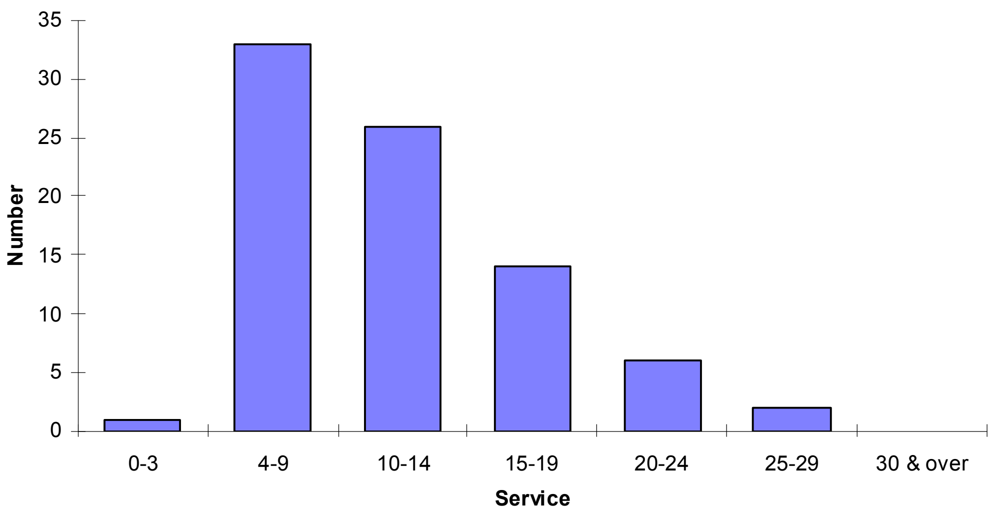

Age Distribution of Inactive Vested Members
Regular Membership
16000
14000
12000
10000
8000
6000
4000
2000
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age

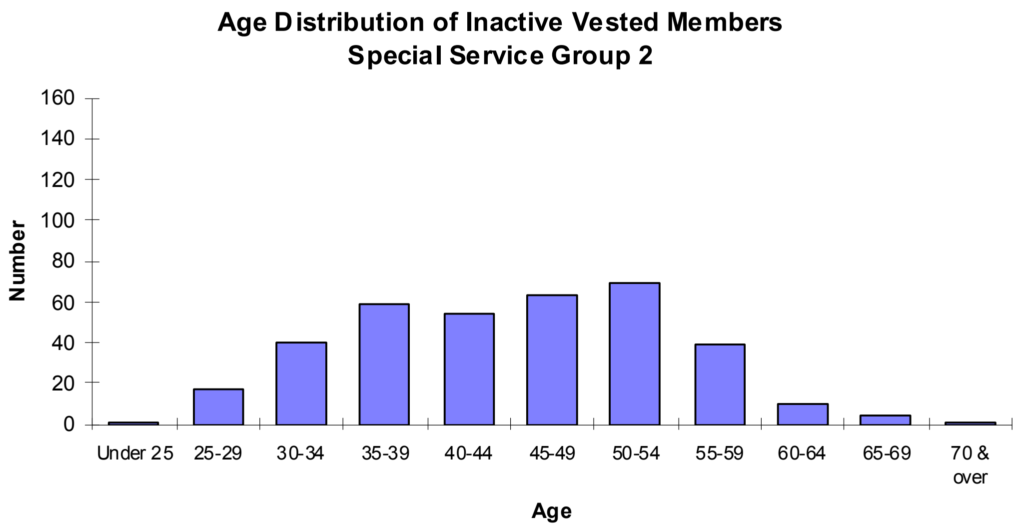

Service Distribution of Inactive Vested Members
Regular Membership
16000
14000
12000
10000
8000
6000
4000
2000
0
Number
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service

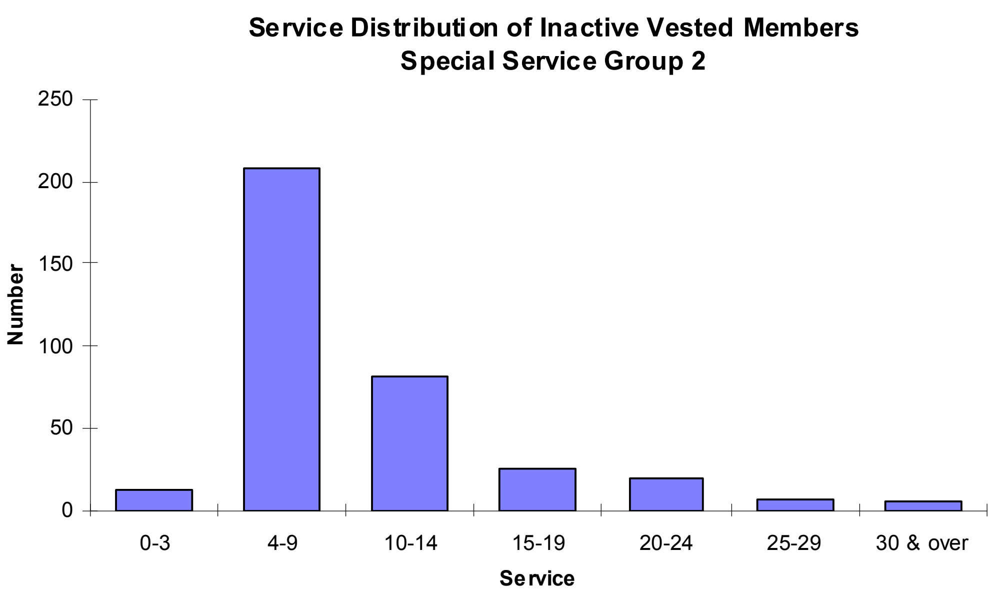
Age Distribution of Inactive Vested Members
Special Service Group 1



Service Distribution of Inactive Vested Members
Special Service Group 1




Age Distribution of Inactive Vested Members
Special Service Group 2
160
140
120
100
80
60
40
20
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 Inactive Vested Members
Special Service Group 2
250
200
150
100
50
0
Number
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	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	9	3	3	3	25	1	3	13	60	$ 6,945
40 to 44	0	17	10	1	5	16	3	5	7	64	7,015
45 to 49	0	49	11	15	14	30	7	13	8	147	7,330
50 to 54	0	116	32	33	42	74	14	44	5	360	9,732
55 to 59	0	1,347	1,219	918	383	169	597	1,305	21	5,959	18,889
60 to 64	0	3,152	2,820	2,085	1,045	280	1,414	2,735	32	13,563	17,960
65 to 69	0	4,313	3,284	2,442	1,897	420	1,855	1,976	38	16,225	14,788
70 to 74	0	4,693	3,340	2,037	2,629	582	2,049	521	49	15,900	11,282
75 to 79	0	4,156	2,994	1,387	2,229	701	1,574	87	20	13,148	8,214
80 to 84	0	3,511	2,534	1,001	1,323	705	1,100	5	16	10,195	6,021
85 to 89	0	2,627	1,298	569	615	447	914	2	2	6,474	5,001
90 to 94	3	1,448	327	257	150	160	526	0	1	2,872	4,219
95 to 99	0	484	50	74	18	24	141	0	0	791	3,529
100 & up	2	87	4	20	1	4	17	0	0	135	3,634
Counts	5	26,009	17,926	10,842	10,354	3,637	10,212	6,696	212	85,893	$11,620
% of Total	0.0%	30.3%	20.9%	12.6%	12.1%	4.2%	11.9%	7.8%	0.2%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

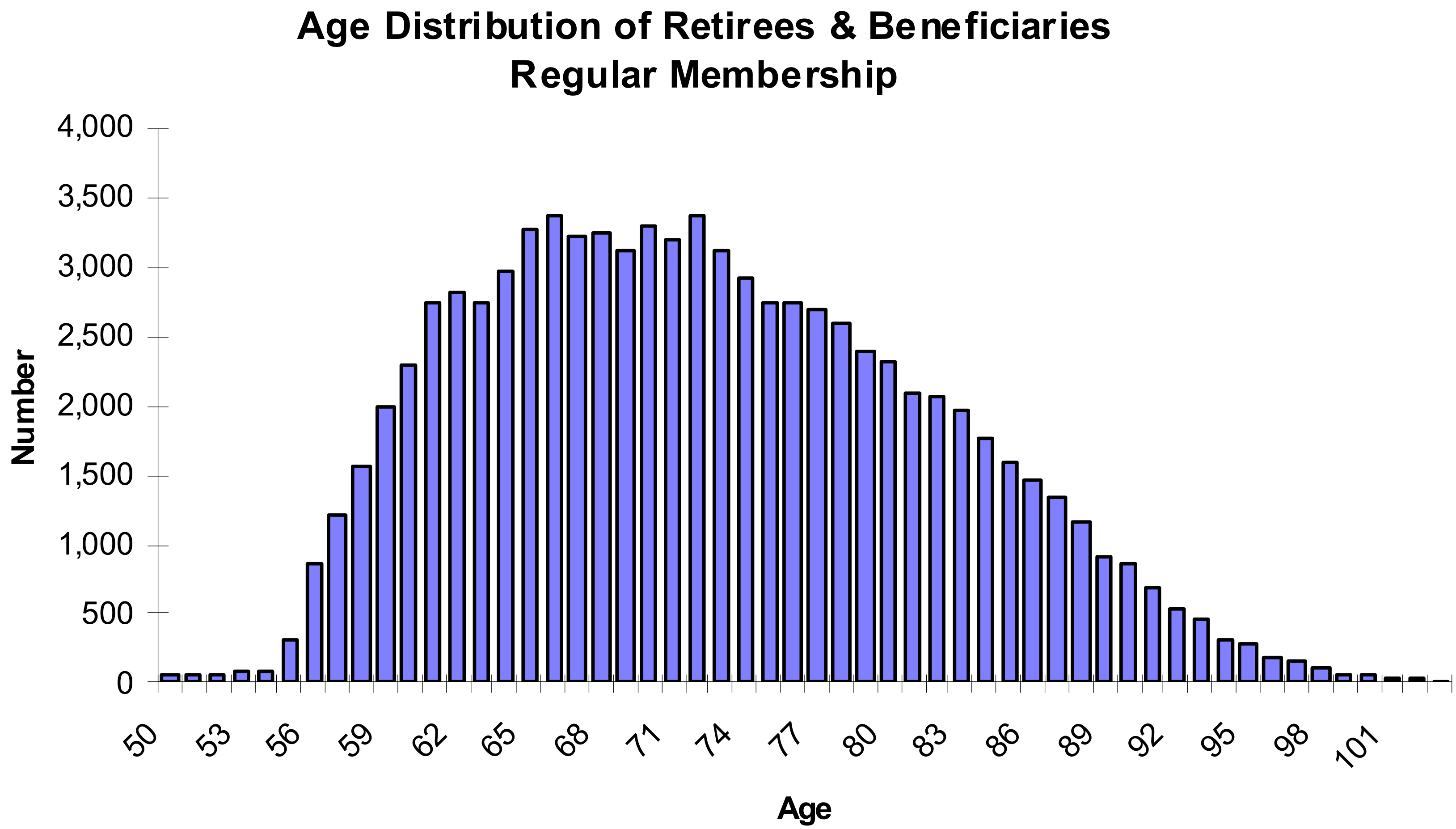
Males and Females - Special Service Group 1

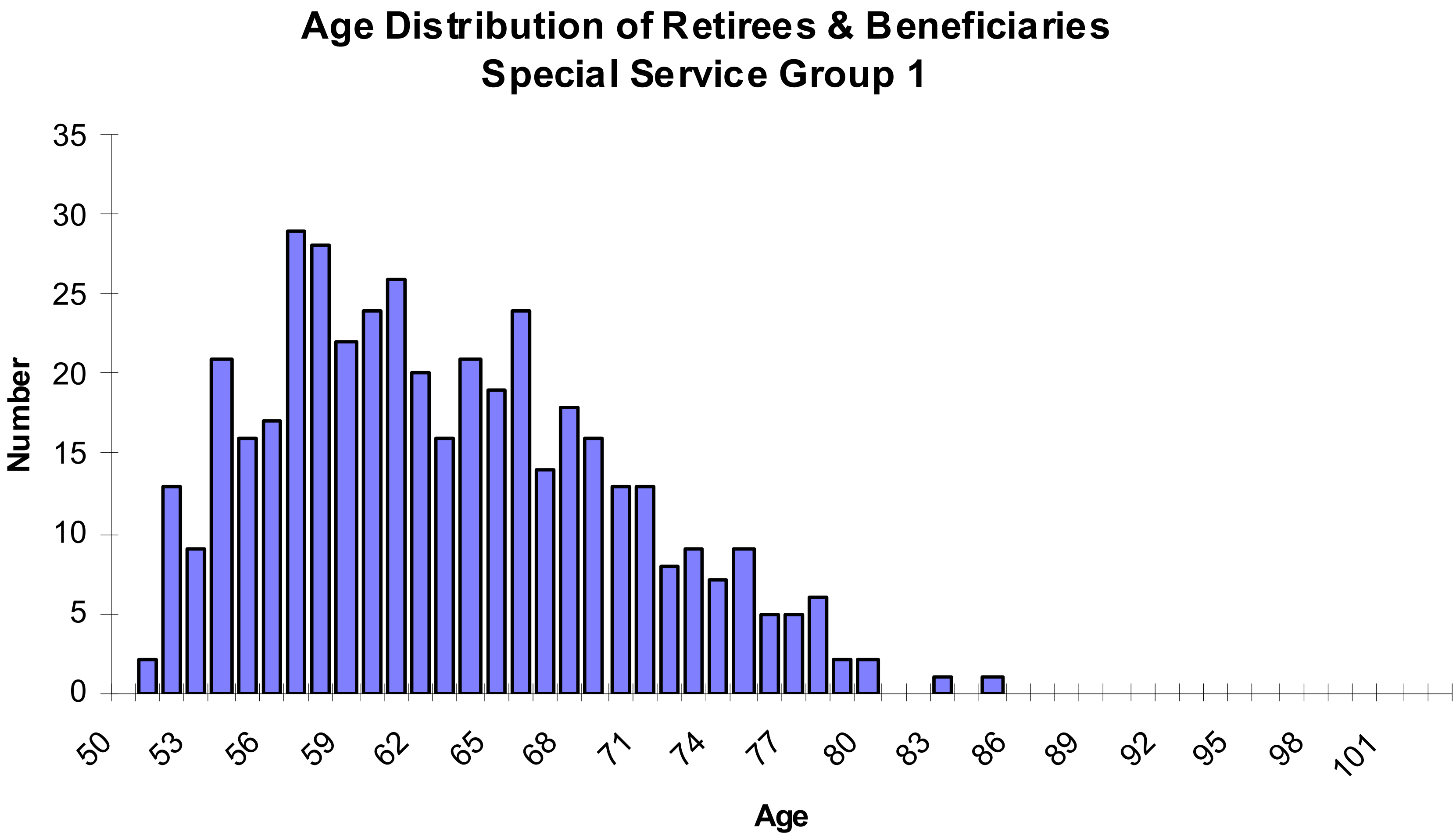
	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	0	0	0	0	0	0	0	0	0	NA
40 to 44	0	3	0	0	0	1	0	0	0	4	68,838
45 to 49	0	0	0	0	0	2	0	0	0	2	22,699
50 to 54	0	7	8	3	15	0	2	10	0	45	30,968
55 to 59	0	28	8	4	19	2	6	45	0	112	30,540
60 to 64	0	28	11	10	21	2	9	26	0	107	26,470
65 to 69	0	21	12	4	27	8	5	14	0	91	24,428
70 to 74	0	8	2	3	22	2	5	8	0	50	19,250
75 to 79	0	4	5	1	10	6	1	0	0	27	14,414
80 to 84	0	0	1	0	0	2	0	0	0	3	10,472
85 to 89	0	0	0	0	0	1	0	0	0	1	9,252
90 to 94	0	0	0	0	0	0	0	0	0	0	NA
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	99	47	25	114	26	28	103	0	442	$25,768
% of Total	0.0%	22.4%	10.6%	5.7%	25.8%	5.9%	6.3%	23.3%	0.0%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

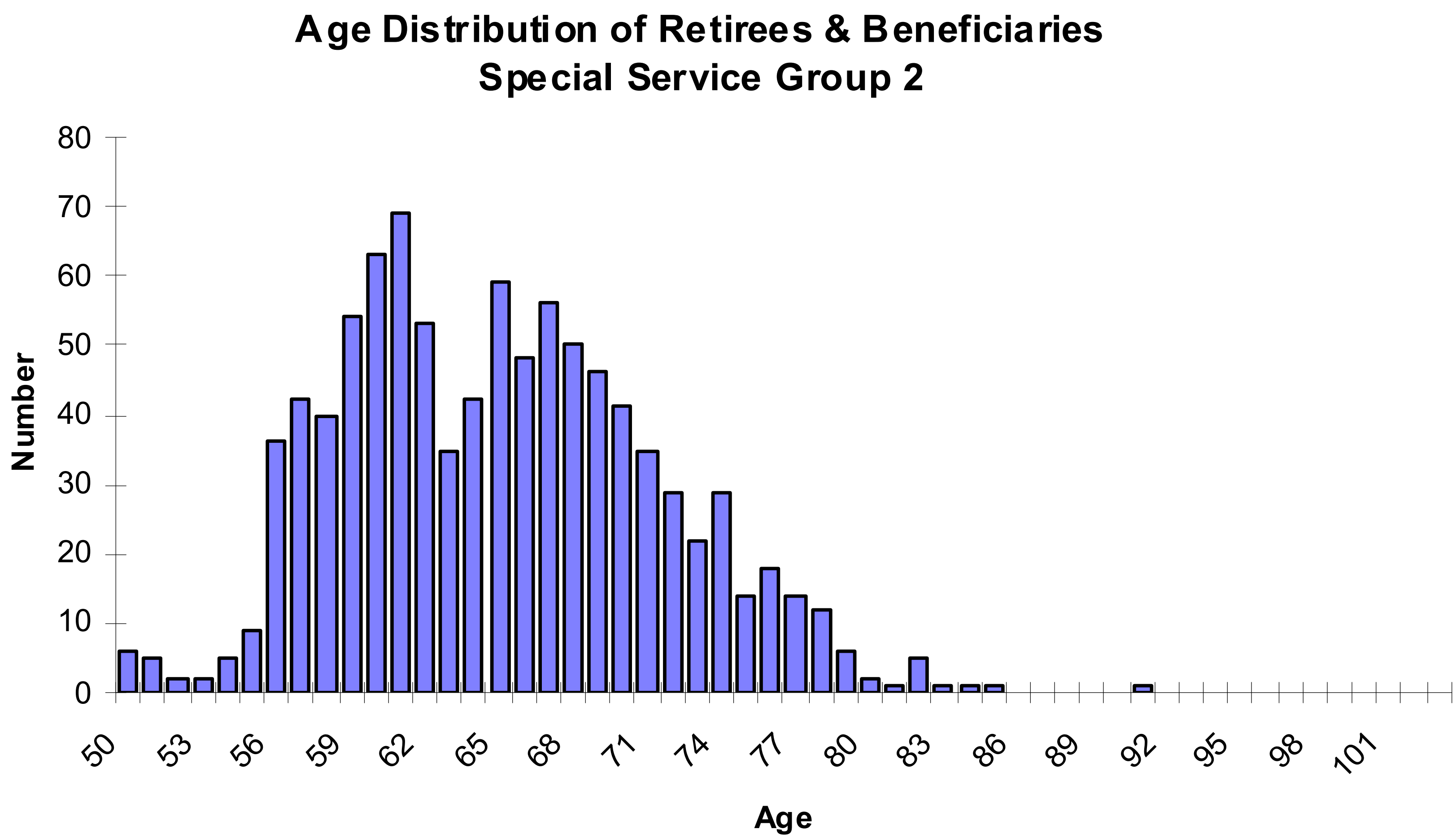
Males and Females - Special Service Group 2

	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	0	0	0	2	0	1	0	0	3	$22,429
40 to 44	0	1	0	2	1	1	0	1	0	6	15,720
45 to 49	0	3	1	3	2	0	0	2	0	11	18,020
50 to 54	0	4	1	2	4	3	1	5	0	20	16,381
55 to 59	0	39	34	15	26	8	4	55	0	181	25,280
60 to 64	0	64	38	20	52	3	20	64	1	262	22,542
65 to 69	0	61	38	24	59	12	14	50	1	259	17,453
70 to 74	0	46	13	7	58	6	14	12	0	156	14,400
75 to 79	0	20	5	1	26	8	3	0	1	64	12,847
80 to 84	0	1	0	0	4	3	2	0	0	10	9,684
85 to 89	0	0	0	0	0	1	0	0	0	1	4,999
90 to 94	0	0	0	0	0	1	0	0	0	1	7,582
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	239	130	74	234	46	59	189	3	974	$19,371
% of Total	0.0%	24.5%	13.3%	7.6%	24.0%	4.7%	6.1%	19.4%	0.3%	100.0%	


Age Distribution of Retirees & Beneficiaries
Regular Membership
Number
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
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
Age
0
5
10
15
20
25
30
35
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101



Age Distribution of Retirees & Beneficiaries
Special Service Group 2
Number
80
70
60
50
40
30
20
10
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	87,490
Removed deaths prior to 7/1/08	(181)
Records used in the valuation	87,309

Records on the not-in-pay data file	256,499
Records removed because the member has received all benefits	(15,805)
Records used in the valuation	240,694

These records are allocated as follows:

Active members	167,823
Retired, re-employed members	8,523
Vested inactive members	27,626
Nonvested inactive members	36,722
Total	240,694

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APPENDIX B

SUMMARY OF PLAN PROVISIONS

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APPENDIX B

SUMMARY OF PLAN PROVISIONS

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. A notable exception 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.
Average Salary:	It is the average of the member's highest three years of covered wages.
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:

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. 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 annual 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 .25% per month is applied for each month the benefit commences prior to normal retirement age (based on service at early retirement).
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.

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	**Member**	**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 and later	Actuarially Determined*		

*Change in contribution rate cannot exceed 0.50% per year.

SPECIAL SERVICE GROUPS 1 AND 2:

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 (phased in from July 1, 2004 through July 1, 2008). The age at which sheriffs and deputy sheriffs with 22 or more years of eligible service first qualify for a retirement benefit is reduced over a five-year period as follows:

54 effective July 1, 2004 [FY 2005]
53 effective July 1, 2005 [FY 2006]
52 effective July 1, 2006 [FY 2007]
51 effective July 1, 2007 [FY 2008]
50 effective July 1, 2008 [FY 2009]

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, if the active or inactive member begins receiving federal Social Security disability or Railroad Retirement disability benefits or upon meeting requirements for in-service disability. These benefits must be applied for through IPERS within one (1) year after termination of employment after July 1, 2000. Benefits 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 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.

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. Members contribute 50% and employers contribute 50%.
Special Service Group 2:	Actuarially determined contribution rate. Members contribute 40% and employers contribute 60%.
	For FY2012 and later, the contribution rate set by IPERS may not change by more than 0.50% per year.

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

TABLE OF CONTENTS

APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

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 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 2006, based on experience from 2001-2005. The Investment Board has adopted and approved the use of the following assumptions and methods.

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 (effective June 30, 2002)

		Regular Membership	Special Service Groups
Males:	Retirees:	RP-2000 Healthy Annuitant Table, Set Forward One Year	RP-2000 Healthy Annuitant Table Set Forward Three Years
	Actives:	RP-2000 Employee Table, Set Forward One Year	RP-2000 Employee Table Set Forward Three Years
Females:	Retirees:	RP-2000 Healthy Annuitant Table, Set Back Two Years	RP-2000 Healthy Annuitant Table No Age Adjustment
	Actives:	RP-2000 Employee Table, Set Back Two Years	RP-2000 Employee Table No Age Adjustment
	The RP-2000 Tables are used with generational mortality		
Beneficiaries:	Same as members		Same as members
Disabled Members:	Annual rates are the greater of 3% or 2.5% plus the corresponding non-disabled rate (based on GAM 94 for males, 95% of GAM 94 for females)		Same as healthy members set forward 6 years

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

Retirement Rates (effective June 30, 2002)

Upon meeting the requirements for early retirement, the following rates apply to regular members:

Age	Assumed Retirement Rate
55-59	5%
60	10
61	15
62	25
63-64	20

Upon reaching the requirements for normal retirement, the following rates apply:

	Assumed Retirement Rates		
Age	1st Year Eligible	After 1st Year	Special Service Groups
55	20%	10%	15%
56	20%	10%	10%
57-59	20%	20%	10%
60	25%	25%	10%
61	35%	30%	20%
62	50%	40%	35%
63	35%	30%	20%
64	35%	35%	35%
65	30%	45%	100%
66	20%	20%	100%
67-68	15%	15%	100%
69	15%	35%	100%
70+	100%	100%	100%

Special Service Group 1 ages 50 to 55 with 22 years of service: 30%

Terminated vested members are assumed to retire at age 62 (55 for Special Service Groups). For regular membership, retired re-employed 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, 1999 for Regular Membership), (effective June 30, 2006 for Special Service Groups)

	Annual Rate Per 1,000 Members		
Age	**Regular Membership**		**Special Service Groups**
	Males	Females	
27	0.2	0.2	1.1
32	0.2	0.2	1.2
37	0.4	0.3	1.8
42	0.7	0.5	3.5
47	1.4	0.9	6.5
52	3.3	2.2	14.6
57	6.3	3.9	26.0
62	9.0	6.2	48.7

Rates of Termination of Employment (effective June 30, 2002)

Regular Membership

	Annual Rate of Withdrawals Per 1,000 Members					
Males:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	165.0	165.0	110.0	66.0
27	231.0	145.0	121.0	99.0	88.0	66.0
32	198.0	145.0	110.0	74.8	55.0	38.5
37	195.8	140.0	110.0	74.8	49.5	33.0
42	195.8	140.0	110.0	74.8	49.5	25.3
47	195.8	130.0	99.0	74.8	49.5	19.8
52	176.0	110.0	77.0	74.8	49.5	19.8
55+	165.0	110.0	55.0	74.8	49.5	19.8
Females:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	220.0	220.0	165.0	55.0
27	275.0	170.0	140.0	110.0	99.0	55.0
32	247.5	170.0	140.0	104.5	71.5	49.5
37	198.0	150.0	110.0	104.5	66.0	36.3
42	198.0	150.0	110.0	88.0	60.5	30.8
47	198.0	130.0	110.0	82.5	49.5	25.3
52	198.0	130.0	110.0	82.5	49.5	25.3
55+	198.0	130.0	110.0	82.5	49.5	25.3

Special Service Groups

Age	**Annual Rate of Withdrawals Per 1,000 Members**
22	90
27	70
32	35
37	35
42	35
47	35
52	30

Probability of Electing a Vested Benefit (effective June 30, 2002)

Years of Service	Regular Membership		Special Service Groups
	Males	Females	
5	61%	70%	53%
10	66%	73%	65%
15	71%	80%	85%
20	76%	85%	95%
25	80%	90%	100%
30	80%	90%	100%

Rates of Salary Increase* (effective June 30, 2006)

Years of Service	Annual Increase	Years of Service	Annual Increase	Years of Service	Annual Increase
		11	5.3%	22	4.5%
Under 2	12.0%	12	5.2%	23	4.4%
2	9.5%	13	5.1%	24	4.4%
3	7.7%	14	5.0%	25	4.4%
4	7.1%	15	4.9%	26	4.3%
5	6.6%	16	4.8%	27	4.3%
6	6.1%	17	4.7%	28	4.2%
7	5.9%	18	4.6%	29	4.1%
8	5.7%	19	4.6%	30	4.0%
9	5.5%	20	4.5%	Over 30	4.0%
10	5.4%	21	4.5%		

*Includes 4.0% wage growth.

ACTUARIAL COST METHOD

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.

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). For regular members, the difference between the statutory contribution rate and the normal cost rate is used to finance the UAL and the number of years necessary to finance the unfunded actuarial accrued liability as a level percent of member payroll is determined. For Special Service members, the contribution rate is the sum of the normal cost rate and the rate required to amortize the UAL or surplus over 30 years. 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.

ACTUARIAL VALUE OF ASSETS SMOOTHING METHOD

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

If a beneficiary birth date is needed but not supplied, husband's 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 Milliman with a code 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 on a monthly basis 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 valuation 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.

APPENDIX D

IPERS Funding Policy

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APPENDIX D

IPERS FUNDING POLICY

This policy was developed by joint action of IPERS' management team and the System's actuarial consultant, and adopted by IPERS management in 1996.

Purpose

This funding policy is intended to provide a measure of the funded status of the Iowa Public Employees' Retirement System (System) on a long-term basis and to provide a set of safeguards as guidelines to help ensure the financial solvency of the System.

Recognizing that the System and its environment are not static, periodic review of this policy shall be conducted to ensure its continuing validity.

Primary Goal

The primary funding goal of the System is to be funded on an actuarially sound basis over the long term by maintaining actuarial contribution rates, given the maximum amortization period, which are equal to or less than the statutory contribution rates.

Definition of "Fully Funded"

The term "fully funded" is used to describe the situation in which the assets are equal to or greater than the liabilities. The focus of IPERS is to define assets and liabilities on a long term basis; therefore, the IPERS funding policy defines the term "fully funded," as well as the terms "actuarially sound" and "financial solvency," to mean that the current actuarial value of assets along with the future expected contributions will be sufficient to provide the benefits promised to members for both accrued and expected future service (as set forth in Iowa code Chapter 97B) within the parameters established in this funding policy. The minimum standards for the System to be considered fully funded is that the normal cost rate plus the amortization payment on the unfunded actuarial liability may not exceed the statutory combined contribution rate. In determining the amortization payment, the amortization period shall never exceed 30 years.

Safeguards for System to Remain Fully Funded

The following safeguards are established to ensure that IPERS continues to be funded on an actuarially sound basis over the long term, so that adequate funds will accumulate to provide all benefits promised to members.

1. The **normal cost rate** (the level percentage of salary required to pay the cost of retirement benefits that are allocated to the current year of service), based on the actuarial cost method used to determine the annual funding requirements for the System, shall not exceed the statutory combined employee/employer contribution rate minus 0.5%.

2. Given the statutory combined employer/employee contribution rate, the amortization period for the unfunded liability as reported in the annual valuation shall not exceed 24 years.

3. Any change in the benefit structure of IPERS that results in an increase in the normal cost rate and/or the unfunded actuarial liability, and/or any distribution to eligible members, should not be considered unless (a) the amortization period reported in the last actuarial valuation report is 20 years or less, and either (b) the amortization period has been less than the maximum (24 years) for at least three consecutive years or (c) the amortization period has been less than ten years for at least two consecutive years, subject to the additional constraint that any distribution does not prevent the amortization period of the prior period from declining.

4. Consideration should be given to increasing the statutory contribution rate if either of the following occur at least three years in any five consecutive year period:
   - The normal cost rate exceeds the standard set in item (1) above
   - The amortization period exceeds the standard set in item (2) above by more than 5 years.