Best Practice

Reviewing, Understanding and Using the Actuarial Valuation Report and Its Role in Plan Funding (CORBA) (2013)

The actuarial valuation report has always played an important role as the basic source document for information regarding actuarially determined contributions[1] and the funded status of pension and other post-employment benefit (OPEB) plans. The actuarial valuation report, prepared in accordance with Actuarial Standards of Practice (ASOP), will soon come to play an even more critical role in the wake of the implementation of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, because funding information for pensions will no longer automatically be provided in financial reports. That is, the actuarial valuation report will soon be the sole source of information for many financial decision makers desiring to make informed decisions about the funding of pension benefits.

The GFOA recommends that state and local government finance officials and others with decision-making authority carefully review and understand their actuarial valuation report and use the information it contains to make policy decisions that ensure that pension benefits are funded in a sustainable manner, consistent with the pension funding guidelines developed by GFOA and the other major state and local government professional organizations.[2]

Reviewing and Understanding the Valuation Report

The purpose of an actuarial valuation is 1) to determine the amount of actuarially determined contributions (i.e., an amount that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long-term) and 2) to measure the plan's funding progress. Key items to consider in reviewing the valuation report include:

- **Actuarially Determined Contribution.** The actuarially determined contribution represents the amount needed to fund benefits over time. If the contributions are not fully paid, interest accrues on the unpaid portion at the plan's expected long-term rate of return.[3] Persistent underfunding will ultimately jeopardize the plan's sustainability. The GFOA recommends that the full amount of the actuarially determined contribution be paid to the plan each year.

- **Liabilities, Assets, and Funded Ratio.** The *actuarial accrued liability* (AAL) represents the present value of benefits earned, calculated using the plan's actuarial cost method. The *actuarial value of assets* (AVA) reflects the financial resources available to liquidate the liability. The *unfunded actuarial accrued liability* (UAAL) is the difference between the AAL and the AVA. The *funded ratio* (AVA/AAL) reflects the extent to which accumulated plan assets are sufficient to pay future benefits. The GFOA recommends that the funding policy aim to achieve a funded ratio that approaches 100 percent, with asset smoothing and amortization methods consistent with the government's funding policy and ASOP.

- **Actuarial Assumptions.** Since the future is unknown, actuarial valuations must be based on assumptions. For an actuarial valuation to be reliable, the assumptions used should reflect the best information available, which should be supported by rigorous discussion and analysis. Likewise, information concerning the demographic characteristics of the covered population needs to be current.

- **Historical Information.** Certain historical information is especially useful for understanding funding:

  - Multi-year information on the plan's funding progress that includes the AAL, the AVA, the funded ratio, and the UAAL as a percentage of payroll, consistent with the government's funding policy; and
  - Multi-year information on both actuarially determined contributions and actual amounts contributed (by definition, if actuarially determined annual required contributions are paid faithfully each year to the plan, the plan should accumulate sufficient resources over time to pay benefits, regardless of the actuarial cost method selected).

  In both cases, the number of periods for which data are presented should be sufficient to allow for the meaningful analysis of trends (e.g., 6 to 10 years and longer if available).

- **Actuarial Comments.** Actuarial Standards of Practice (ASOPs) require actuaries to make certain disclosures in their reports. These disclosures are commonly presented as *comments* intended to help users understand the report and include: 1) the report's intended purpose; 2) cautions regarding risk and uncertainty; and 3) constraints regarding the use of the report for other than its intended purpose. In addition, if a prescribed assumption or method is used that the actuary believes is unreasonable or conflicts with the ASOPs, the actuary has a duty to disclose that fact in the report. [4]

- **Information Needed to Prepare Financial Reports.** The actuarial report may also provide all of the information needed to prepare the government's financial reports in conformity with generally accepted accounting principles (GAAP) or legal or contractual requirements. This information may be provided as part of the valuation report or through a separate actuarial report.

- **Other information.** An actuarial valuation report also may include: 1) projections of future contributions and funded status; 2) an analysis of the impact of potential changes in actuarial assumptions; and 3) the impact of economic volatility on the plan's contributions and funded ratio.[5]

Using the Actuarial Report to Make Appropriate Decisions

The information contained in an actuarial report is complex and can be difficult to understand for those who are not accustomed to working with this kind of information. For this reason, simply providing a copy of the actuarial report to decision makers does not ensure that everyone has a full understanding of its short-term and long-term implications. In most governments, the finance officer is in the best position to communicate the contents of the actuarial report, as the finance officer is familiar with the nuances of the actuarial report and is also intimately familiar with the organization's financial situation. Accordingly, the first step toward using an actuarial report to make appropriate decisions is for the finance officer to communicate the information the report contains to decision makers and the general public in a clear and understandable manner. Effective communication is especially important when changes to benefits are being considered.

To draw full benefit from the information contained in an actuarial report, the review of the information it contains must be followed by appropriate action steps:

- **Making Required Contributions.** The key purpose of an actuarial valuation is to inform plan sponsors of the amount that needs to be contributed each year to adequately fund benefits. Consequently, the first action step is to take appropriate steps to ensure that actuarially determined contributions are faithfully paid to the plan each year. If those contributions are *not* made, follow-up action should be taken to understand the underlying cause of the underfunding and to resolve it.

- **Assessing Funding Progress.** Historical information should be used to assess funding progress (e.g., Is the plan's funded ratio improving over time? Is the rate of improvement consistent with the employee's funding policy?).

- **Mitigating Risks.** Information from the actuarial valuation can help to uncover risk exposure related to the funding of benefits. Decision makers should identify those risks and take appropriate and timely action to mitigate them. For example, if the valuation shows a high degree of asset volatility, it may be prudent to lower that volatility through adjustments to asset allocations or by other means, such as examining the methodology used to determine the actuarial value of assets.

- **Ensuring Reliable Data.** For an actuarial valuation to be reliable, the underlying data must be reliable as well, including the demographic information related to plan members, the economic information related to investment returns and payroll growth, and the detailed descriptions of current benefits. Employers should work closely with the actuary to ensure that reliable information is provided in a timely manner.

- **Validating Methods and Assumptions through Experience Studies.** The reliability of an actuarial valuation also depends on the use of reasonable methods and assumptions. Experience studies, performed no less frequently than every five years, can help to ensure the assumptions are in line with the plan's demographic and economic experience, or can be used as a guide to make necessary changes. Likewise, a comprehensive audit of the plan's actuarial valuations performed by an independent actuary at least once every five to eight years can be used to evaluate the appropriateness of the actuarial methods, assumptions, and their application.

Notes

[1] The new GASB standards no longer use the term "annual required contribution" or "ARC." Instead, the new standards refer to the disclosure of an "actuarially determined contribution."

[2] Guidelines for Funding Defined Benefit Pensions, GFOA best practice, 2013.

[3] The long-term expected rate of return is significantly higher than the short-term rates used in operating funds.

[4] Actuarial Standards Board, Actuarial Standards of Practice No. 41, *Actuarial Communications*, December 2010.

[5] California Actuarial Advisory Panel, *Model Disclosure Elements for Actuarial Valuation Reports on Public Retirement Systems in California*, December 2011.

ACUFF & ASSOCIATES

QUALITY SOLUTIONS THAT BENEFIT

Actuarial Valuation Report
As of January 1, 2013

Prepared for

CITY OF FRANKLIN
EMPLOYEES' PENSION PLAN
AND TRUST

BRENTWOOD, TENNESSEE 37027
OFFICE: (615) 726-2410

KNOXVILLE, TENNESSEE 37923
OFFICE: (865) 470-4232

MEMPHIS, TENNESSEE 38133
OFFICE: (901) 767-3366

SHREVEPORT, LOUISIANA 71119
OFFICE: (318) 635-8006

www.acuff.net

Contents of Report

Introduction

This report has been prepared for the City of Franklin (the "City") by Acuff & Associates, Inc. to:

1. Present the results of a valuation of the City of Franklin Employees' Pension Plan (the "plan") as of January 1, 2013
2. Review experience under the plan for the period ended December 31, 2012
3. Provide to the City the recommended contribution under the plan for the City's fiscal year beginning July 1, 2013
4. Provide reporting and disclosure information for government agencies and other interested parties

This report shows the results of four classifications or tiers of pension benefits for employees

Tier one: employees hired before July 1, 2006

Tier two: employees hired between July 1, 2006 and February 15, 2010

Tier three: employees hired after February 15, 2010 who elected to contribute to the defined benefit plan.

Tier four: employee hired after February 15, 2010 who elected to contribute to a defined contribution plan. This valuation holds no liability for this group due to the possibility of them joining the plan at a later date.

Note: It appears the contribution to the 401(a) Plan is covering the Tier 4 expected benefit that could accrue for them under the provision of the defined benefit Plan.

This report is divided into the following three sections:

Section 1 contains the results of the valuation. It includes the experience for the plan year ending December 31, 2012, the current annual costs, plan reporting, and disclosure information.

Introduction (Continued)

Section 1.4 shows the determination of the City's recommended contribution for the fiscal year beginning July 1, 2013.

	07/01/2013	4 Quarterly Contributions
Recommended Contribution	$3,927,441	$4,033,372
As a Percent of Expected Covered Payroll	13.59%	13.95%

Section 1.5 provides GASB (Government Accounting Standards Board) Statement Numbers 5 and 27 Information.

Section 2 summarizes the plan's provisions, provides information relating to the plan's participants, and describes the funding methods and actuarial assumptions used in determining actuarial liabilities and costs.

Section 3 contains historical information and active participant demographic tables.

Actuarial Certification

The information and valuation results shown in this report are, to the best of our knowledge, complete and accurate. The information presented in this report is based upon the following:

- Employee census data as of January 1, 2013, submitted by the City, which appears to be reasonable and sufficient for the purpose of this report
- Asset information as of December 31, 2012, reported by U.S. Bank Corporate Trust, which appears to accurately represent the assets of the plan
- Actuarial assumptions and methods, which, individually and in combination, represent our best estimate of anticipated experience under the plan
- Actuarial assumptions, which are reasonable and relate to the experience of the plan
- Interpretation of plan provisions as summarized in this report

The amounts presented in the exhibits of this report were determined in accordance with generally accepted actuarial methods and practices and fully disclose the actuarial position of the plan. Reliance was placed on participant and financial information as listed above.

The undersigned are available to answer any questions with respect to this report.

Respectfully submitted,

Acuff & Associates, Inc.

5/25/2013

Date Signed

David F. Kays, ASA, MAAA

Date Signed

Lucian B. Acuff, ASA

Executive Summary of Principal Valuation Results

A summary of the principal valuation results from the current valuation and last year's valuation follows:

	Actuarial Valuation as of	
Summary of Data	**01/01/2012**	**01/01/2013**
Number of Participants Included in Valuation		
Active Participants	591	572
Vested Terminated Participants	114	123
Disabled Participants	4	4
Retired Participants and Beneficiaries	121	128
Total	830	827
Expected Covered Payroll for Participants Included in the Valuation	$ 29,869,786	$ 28,902,947
Summary of Actuarial Results		
Present Value of Benefits	$ 95,385,041	$ 100,398,225
Actuarial Accrued Liability	78,081,270	82,610,248
Unfunded Actuarial Accured Liability	22,839,803	19,077,783
Normal Cost[1]	$ 1,908,874	$ 1,988,187
Normal Cost Rate	6.39 %	6.88 %
Recommended Contribution Paid Quarterly	$ 4,251,668	$ 4,033,372
As a Percent of Payroll	14.23 %	13.95 %
Summary of Actuarial Value of Assets and Actuarial Present Values on the Valuation Date		
Actuarial Value of Plan Assets on the Valuation Date	$ 55,241,467	$ 63,532,465
Actuarial Present Value of Accumulated Plan Benefits	$ 64,505,222	$ 69,278,944
Funding Ratio	85.64 %	91.71 %

Section 1 – Summary of Valuation Results

This section sets forth the results of the actuarial valuation.

Section 1.1 shows the development of assets.

Section 1.2 shows the calculation of normal cost.

Section 1.3 shows the actuarial experience.

Section 1.4 shows the development of funding alternatives.

Section 1.5 shows the accounting information as required by Government Accounting Standards Board Statement Numbers 5 and 27.

Section 1.1 – Assets

Reconciliation of Assets

The following is a summary of the asset information as submitted by US Bank.

1.	Market Value of Assets as of January 1, 2012	$	55,241,467
2.	Contributions and Disbursements		
	a. Employer Contributions	$	3,188,751
	b. Employee Contributions		335,123
	c. Benefit Payments		(2,881,112)
	d. Expense		(101,670)
	e. Transferred		0
	f. Net	$	541,092
3.	Investment Income		
	a. Interest/Dividends	$	n/a
	b. Realized Gain/(Loss)		n/a
	c. Unrealized Gain/(Loss)		n/a
	d Other Adjustments		n/a
	e. Net Investment Income/(Loss)	$	6,686,989
4.	Market Value of Trust as of December 31, 2012 (1) + (2f) + (3e)	$	62,469,548
5.	Employee Contributions Receivable	$	0
6.	Employer Contributions Receivable		1,062,917
7.	Actuarial Value of Assets as of December 31, 2012 (4) + (5) + (6)	$	63,532,465
8.	Rate of Return		12.05 %
9.	Rate of Return Net of Expenses		11.85 %

Section 1.1 – (Continued)

Reconciliation of Cash Balance Employee Contributions

		Mandatory	Voluntary	Rollover	Totals
1.	As of 01/01/2012	$ 4,605,522.87	$ 255,523.94	$ 0.00	$ 4,861,046.81
2.	Employee Contributions	251,115.86	16,010.33	0.00	267,126.19
3.	Interest Credited	277,712.88	15,872.42	0.00	293,585.30
4.	Payouts	(146,963.66)	(10,739.46)	0.00	(157,703.12)
5.	Adjustments	0.00	0.00	0.00	0.00
6.	Totals as of 12/31/2012	$ 4,987,387.95	$ 276,667.23	$ 0.00	$ 5,264,055.18

Mandatory Employee Contributions

Tier 3	89,072.00
Tier 4	56,289.00

Section 1.2 – Normal Cost

The following schedule shows the development of the Normal Cost at the current valuation date.

Entry Age Normal (EAN)

		2013	2012
1.	Actuarial Accrued Liability		
	a. Active Participants	43,627,534 $	44,476,284
	b. Cash Balance Accounts	5,264,055	4,861,047
	c. Retired Participants and Beneficiaries	30,832,962	26,124,448
	d. Vested Terminated Participants	2,724,281	2,469,205
	e. Disabled Participants	161,416	150,286
	Total	82,610,248 $	78,081,270
2.	Actuarial Value of Assets	63,532,465 $	55,241,467
3.	Unfunded Actuarial Accrued Liability	19,077,783	22,839,803
4.	Contribution		
	a. Normal Cost	2,137,607 $	1,969,302
	b. Expected Employee Contribution	(149,420)	(60,428)
	c. Net Normal Cost	1,988,187	1,908,874
	d. As a percent of Pay	6.88 %	6.39 %
	e. 20 Year Amortization Payment	1,799,774	2,084,099
	f. January 1, Payment c. + e.	3,787,961	3,992,973
	g. December 31, Payment f*1.075	4,072,058	4,292,446
	h. Estimated Covered Payroll	28,902,947	29,869,786
	i. As a Percent of Covered Payroll	14.09 %	14.37 %

Section 1.3 – Actuarial Experience

Under the funding method employed, actuarial experience is measured by comparing the Expected Unfunded Actuarial Accrued Liability, as if all actuarial assumptions had been met, to the Actual Unfunded Actuarial Accrued Liability at the valuation date. If the Expected Unfunded Actuarial Accrued Liability exceeds the Actual Unfunded Actuarial Accrued Liability, there is an actuarial gain; conversely, if the Expected Unfunded Actuarial Accrued Liability is less than the Actual Unfunded Actuarial Accrued Liability, there is an actuarial loss.

The Plan experienced an actuarial gain of $3.1 million. $2.5 million was due to assets earning in excess of 7.5%. The remaining $0.6 million was due to other changes. Note the annual salary for employees active in both 2011 and 2012 went down 1.1%. The year 2011 had more payroll periods than 2012 and pay increases were minimal. The Plan also experienced more retiree deaths than expected.

Section 1.3 – (Continued)

1.	Unfunded Actuarial Accrued Liability/(Surplus) as of 01/01/2012	$	22,839,803
2.	Expected Increases During the Year		
	a. Normal Cost Due at the Beginning of the Year	$	1,908,874
	b. Interest for One Year On		
	(i) Normal Cost	$	143,166
	(ii) Unfunded Actuarial Accrued Liability		1,712,985
	Total Interest (i) + (ii)		1,856,151
	c. Total Expected Increases (a) + (b)	$	3,765,025
3.	Expected Decreases During the Year		
	a. Employer Contributions for the Year	$	4,251,668
	b. Interest on Employer Contributions from Dates Made to the End of the Year		159,438
	c. Total Expected Decreases (a) + (b)	$	4,411,106
4.	Expected Unfunded Actuarial Accrued Liability/(Surplus) at End of Year (1) + (2c) - (3c)	$	22,193,722
5.	Actual Unfunded Actuarial Accrued Liability/(Surplus)	$	19,077,783
6.	Actuarial Experience Gain/(Loss) for the Year	$	3,115,939

Section 1.4 – Funding

IRC (Internal Revenue Code) Section 404(a)(1) describes the limitations on tax deductible contributions to a pension trust, and IRC Section 412 sets forth minimum funding standards for non-government entities. Since the City is a government entity and tax consequences can be affected by factors not considered here, we recommend the City seek the advice of counsel with respect to the tax consequences of any contribution to be made. Furthermore, state tax law may differ from federal tax law; the amounts determined below may have some tax consequences to the City and its employees.

On the basis of the valuation as of January 1, 2013, the following is the determination of the recommended contribution amount for the City's fiscal year beginning July 1, 2013.

The recommended contribution is the Normal Cost plus 20-year amortization of the unfunded accrued liability, as of January 1, 2012 plus 20-year amortization of any future actuarial gains or losses, plus interest to the date contributions are deposited.

Recommended Quarterly Contribution

			2013 Valuation	2012 Valuation
Recommended Contribution Schedule				
1.	Normal Cost as of January 1, 2013	$	1,988,187 $	1,908,874 $
	20-year Amortization		1,799,774	2,084,099
	Recommended Contribution at January 1, 2013		3,787,961	3,992,973
3.	Recommended Contribution July 1, 2013	$	3,927,441 $	4,140,002 $
4.	As a Percent of Expected Covered Payroll		13.59 %	13.86 %
5.	Interest to December 31, 2013		284,097	299,473
6.	Recommended Contribution December 31,	$	4,072,058 $	4,292,446
7.	As a Percent of Expected Covered Payroll		14.09 %	14.37 %
8.	Quarterly Contributions			
	July 1, 2013	$	1,008,343 $	1,062,917
	October 1, 2013		1,008,343	1,062,917
	January 1, 2014		1,008,343	1,062,917
	April 1, 2014		1,008,343	1,062,917
	Total	$	4,033,372 $	4,251,668
9.	As a Percent of Expected Covered Payroll		13.95 %	14.23 %

Section 1.4 – (Continued)

Amortization Schedule for Unfunded Actuarial Accrued Liability

Amortization Base	Date Amortization Base Established	Years Remaining to Amortize Base	Initial Balance of Amortization Base	Outstanding Balance of Amortization Base	Amortization Payment of Base
Initial Unfunded	01/01/2012	19	$22,839,803	$ 22,312,382	$ 2,084,099
2012 Loss/(Gain)	01.01/2013	20	(3,115,939)	(3,115,939)	(284,325)
Total				19,196,443	1,799,774

Section 1.5 – Accounting Information

Statement No. 27 of the GASB (Government Accounting Standards Board) established that each government entity must determine its NPO (Net Pension Obligation). The following shows the determination for the fiscal year ending June 30, 2013.

NPO Determination	2008	2009	2010	2011	2012
1. NPO as of June 30, Year	$ (20,089)	$ (1,446,026)	$ (1,941,338)	$ (2,086,938)	$ (2,120,294)
2. Contribution - Funding Method	4,499,000	5,697,520	5,282,084	4,495,984	4,251,668
3. Amortization of NPO	(2,174)	(152,387)	(204,585)	(219,929)	(232,340)
4. Annual Required Contribution (ARC) (2) + (3)	4,496,826	5,545,133	5,077,499	4,276,055	4,019,328
5. Interest on NPO 8% x (1) for '04-'05, 7.75% x (1) for '06-'08	(1,557)	(108,452)	(145,600)	(156,520)	(159,022)
6. Annual Pension Cost (APC) (2) +(5)	4,497,443	5,589,068	5,136,484	4,339,464	4,092,646
7. Employer Contribution	5,923,380	6,084,380	5,282,084	4,372,820	4,251,668
8. Change in NPO Due to Principal Repayment (3)- (5)	(617)	(43,935)	(58,985)	(63,409)	(73,318)
9. Change in NPO Due to Contributions (4) - (7)	(1,426,554)	(539,247)	(204,585)	(96,765)	(232,340)
10. NPO (Asset) as of June 30, Year +1 (1) - (8) +(9)	(1,446,026)	(1,941,338)	(2,086,938)	(2,120,294)	(2,279,316)

Section 1.5 – (Continued)

Defined Benefit Pension Plans Analysis of Funding Progress
GASB Statement No. 27 Information
For the City of Franklin Employees' Pension Plan

Statement No. 27 of the Government Accounting Standards Board requires that certain disclosures be made. In addition, the State of Tennessee requires that all government plans submit a report showing GASB 27 information. The following information is intended to meet both of these requirements.

Fiscal Year Ending	Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL/ (Surplus) (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as Percentage of Payroll ((b-a)/c)	Investment Assumption
June 30, 2013	January 1, 2012	$55,241,467	$64,505,222	$9,263,755	85.64%	$29,869,786	31.01%	7.50%
June 30, 2012	January 1, 2011	$54,086,646	$57,900,531	$3,813,885	93.41%	27,958,552	13.64%	7.50%
June 30, 2011	January 1, 2010	$43,406,019	$51,465,753	$8,059,734	84.34%	29,389,625	27.42%	7.50%

Section 1.5 – (Continued)

Defined Benefit Pension Plans
Analysis of Funding Progress
GASB Statement No. 27 Information
For the City of Franklin Employees' Pension Plan
(Continued)

Fiscal Year Ending	Salary Assumption	Actuarial Method	Amortization Period	Market Value of Assets	Annual Required Contribution (ARC) (d)	Actual Contribution (e)	Net Pension Obligation/ (Asset) (NPO)	Percentage of ARC Contributed (e)/(d)
June 30, 2013	3.50%	EAN	20	$55,241,467	$4,019,328	$4,251,668	($2,279,316)	105.78%
June 30, 2012	3.50%	Aggregate	N/A	$54,086,646	$4,276,055	$4,372,820	($2,120,294)	102.26%
June 30, 2011	3.50%	Aggregate	N/A	$43,406,019	$5,077,499	$5,282,084	($2,086,938)	104.03%

Section 1.5 – (Continued)

Actuarial Present Value of Accumulated Plan Benefits

GASB 5 was superseded by GASB 27, but we find GASB 5 information helpful in showing the actuarial soundness of the plan.

Based on the valuation, the actuarial present value of accumulated plan benefits does not exceed the actuarial value of pension assets.

The present values shown below were computed based on the actuarial assumptions set forth in this report (with the modification that no future salary improvements are anticipated) and the vested portion of the benefits accrued to the valuation date as defined in the plan.

Actuarial Present Value of Earned Benefits

			2013		2012
1.	Vested Participants				
	a. Active Participants	$	29,702,646	$	29,970,791
	b. Cash Balance Accounts		5,264,055		4,861,047
	c. Vested Terminated Participants		2,724,281		2,469,205
	d. Disabled Participants		161,416		150,286
	e. Retired Participants and Beneficiaries		30,832,962		26,124,448
	Total Vested Benefits	$	68,685,360	$	63,575,777
2.	Non Vested Benefits		593,584		929,445
3.	Total Accumulated Benefits	$	69,278,944	$	64,505,222
4.	Net Actuarial Value of Assets Available for Benefits		63,532,465		55,241,467
5.	Funded Ratio		91.7	%	85.6

Section 2 – Basis of Valuation

In this section, the basis of the valuation is presented and described. This information (the provisions of the plan and the census of participants) is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

The valuation is based upon the premise that the plan will continue in existence; therefore, future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the assets, the number of participants who will remain until retirement as well as their ages at retirement and their expected benefits.

The actuarial assumptions and the actuarial cost method (or funding method), which have been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in this section.

Section 2.1 summarizes the plan provisions.

Section 2.2 describes the actuarial valuation method and shows the actuarial assumptions.

Section 2.3 summarizes the census data used in the valuation.

Section 2.1 – Summary of Plan Provisions

Name of Plan

City of Franklin Employees' Pension Plan

Plan Sponsor & Plan Administrator

City of Franklin

Trustees

City of Franklin

City of Franklin Employee Pension and Trust Investment Committee

Human Resource Director, two (2) members of the Board appointed by the Mayor, two (2) City Employee Representatives elected by the Employee population covered by this Plan, and two (2) Citizen Representatives who shall be appointed initially by the Mayor.

Effective Date

The plan was originally established effective May 1, 1971. The restated plan document is effective July 1, 2009. The Plan was last amended effective February 15, 2010.

Plan Year

The plan year is the calendar year.

Eligibility

A full-time employee who works 30 hours or more per week will become an active member on the first day of the month after meeting the following requirements:

- Completes one year of continuous service
- Reaches age 21
- An Employee hired on or after February 15, 2010, shall become eligible to participate in the Plan and become a Participant as of the first day of the month immediately following the commencement of the Employee's employment by the City, provided, however, that such Employee shall be eligible to participate in the Plan only upon his election to participate.

Section 2.1 – (Continued)

Credited Service

Credited Service under the plan is based on completed calendar months during which an Employee has been in continuous employment with the City of Franklin. Periods of absence due to disability, military service, or approved leave are not considered discontinuance of employment.

Plan Compensation

Plan Compensation is W-2 Compensation, including deferrals made under this plan as mandatory pre-tax employee contributions, any amounts made under a cafeteria (§125) plan, overtime pay, bonuses, holiday pay, fringe benefits (cash or non-cash), deferred compensation, welfare benefits, and other regular pay. Compensation excludes reimbursements or other expense allowances, moving expenses, uniform allowances, and supplemental pay for police officers and firefighters, long-term disability benefits, pay in-lieu-of notice, severance pay, tuition reimbursements, or automobile allowances.

Average Compensation

Average Compensation" shall mean the average of the Participant's Compensation over the three (3) consecutive whole calendar years of a Participant's Employment during which his Compensation was the greatest out of the last ten (10) calendar years or over a lesser number of Years of Employment actually served, provided, however, that for a Participant who was first hired by the City on or after February 15, 2010, "Average Compensation" shall mean the average of the Participant's Compensation over the five (5) consecutive whole calendar years of a Participant's Employment during which his Compensation was the greatest out of the last ten (10) calendar years or over a lesser number of Years of Employment actually served.

Accrued Benefit

Determine in the same manner as Normal Retirement Benefit using Average Compensation and Service at date of determination.

Participants' Cash Balance Accounts are the account balances on the date of determination.

Normal Retirement

Eligibility

Normal retirement occurs at age 65 and completion of 5 years of plan participation. With respect to employees hired before July 1, 2006, normal retirement occurs when they complete 25 years of service.

Section 2.1 – (Continued)

Benefit

For employees hired before July 1, 1995, the benefit formula is the greater of

- 2% of Average Compensation multiplied by the number of years of Credited Service, less 50% of the monthly Primary Insurance Amount provided under Social Security at the time of retirement, or
- 1% of Average Compensation multiplied by the number of years of Credited Service.

For all retirements and terminations after July 1, 2003, the benefit formula is 2% of Average Compensation multiplied by the number of years of Credited Service.

Cash Balance Accounts

Cash Balance Accounts include the sum of all pre-tax employee contributions, post-tax employee contributions, discretionary City contributions, and interest credits.

Early Retirement

Eligibility

Completion of ten years of Credited Service and attainment of age 55 or completion of 25 years of Credited Service regardless of age.

Benefit

The benefit is determined under the Accrued Benefit formula stated above, which is based on service and compensation to date and is payable at age 65. A reduced benefit is payable immediately. The reduction for immediate commencement of benefits is 5% per year for each year preceding normal retirement with a prorated adjustment for partial years, rounded to the nearest month. A participant hired before February 15, 2010 who has attained age 62 with twenty years of Credited Service will receive an Early Retirement Benefit without reduction.

Participants hired after July 1, 2006 and before February 15, 2010 can retire after age 55 with at least 25 year of service with no reduction for early retirement.

Participants' Cash Balance Accounts are the account balances on the Early Retirement Date.

Section 2.1 – (Continued)

Late Retirement

Benefit

The late retirement benefit is the greater of the benefit determined under Normal Retirement above calculated as of the Normal Retirement Date actuarially increased to the late retirement date, or the benefit determined under Normal Retirement above recognizing pay and service to the late retirement date.

Participants' Cash Balance Accounts are the account balances on the actual Retirement Date.

Disability Retirement

Eligibility

A participant must be totally and permanently disabled.

Benefit

The benefit is the accrued retirement benefit reduced for early payment or deferred to age 65 if the participant is not otherwise eligible to receive a benefit.

Vesting

A participant will be vested in his Accrued Benefit according to the following schedule adopted after January 1, 2003.

Credited Service	Vested Percentage
Less than 5 years	0%
5 years	100%

A participant is 100% vested immediately in all Cash Balance Accounts.

Death Before Retirement

Eligibility

Attainment of age 21 and one year of Credited Service is required to be eligible for this benefit upon death.

Section 2.1 – (Continued)

Benefit

The beneficiary receives the monthly benefit that can be provided by the actuarial present value of the accrued benefit. If the employee dies before becoming eligible for Early Retirement, the beneficiary may receive a Lump Sum equal to the actuarial present value of the accrued benefit.

Death After Retirement

No benefit is payable unless an optional form of settlement has been elected. Otherwise, the benefit is the employee's contributions, plus interest, less the amount of annuity payments paid.

Annuity Forms

The following forms of settlement are available:

Normal Form

- The normal form for the monthly benefit is a life annuity benefit. However, each participant married at retirement who does not elect otherwise will receive a joint annuity in a reduced amount providing for a 50% continuation to a surviving spouse.
- The normal form for the Cash Balance Accounts is a lump sum. However, it may be converted to an annuity payable for life with a death benefit refund of the account at the Participant's Retirement Date, minus the sum of the monthly payments that have been made.

Optional Forms

- Contingent options at 50%, 75%, or 100% of the benefit being paid to the beneficiary upon death of the retiree
- Five, ten, and fifteen year certain and life annuities
- Social Security adjustment option
- Special option upon request and granted by the City

Contributions

Mandatory Participant Contributions.

Employees and elect to participate who were first hired by the City on or after February 15, 2010, shall make a mandatory contribution to the Plan in an amount equal to 5% of the Participant's Compensation. Employees are 100% vested in total accumulated contribution without interest.

Section 2.1 – (Continued)

Pre-Tax Employee Contributions

Employees hired before July 1, 1995 may contribute from 3% to 10% on a pre-tax basis to a Cash Balance Account. For employees hired on or after July 1, 1995, a 3% pre-tax contribution is required, but an additional contribution up to 7% may be made if elected on a one-time basis.

Post-Tax Employee Contributions

Employees may make a voluntary after-tax contribution of 1% to 10% of annual salary to a Cash Balance Account.

Discretionary City Contributions

The City may make additional contributions to Participants' Cash Balance Accounts on a discretionary basis.

Regular City Contributions

The City will make regular contributions as required to fund the plan.

Interest on Cash Balance Accounts will be credited each year with interest calculated at the rate for U.S. Treasury Bills as of November 1 of the previous year plus 1%. The minimum interest to be credited will be no less than 6% per year.

Section 2.1 – (Continued)

The rates used to date are:

Year	Rate
1995	9.08%
1996	7.26%
1997	7.48%
1998	7.11%
1999	6.25%
2000	7.15%
2001	6.78%
2002	6.12%
2003	6.00%
2004	6.12%
2005	6.00%
2006	6.00%
2007	6.00%
2008	6.00%
2009	6.00%
2010	6.00%
2011	6.00%
2012	6.00%

Section 2.2 – Actuarial Basis

What is an Actuarial Valuation?

An actuarial valuation is a mathematical method for measuring the liabilities under a pension plan and for determining a schedule of contributions to finance the plan. The actual cost of a pension plan cannot be determined until its entire experience is complete; however, actuarial techniques determine a pattern of contributions that will finance the liabilities in an orderly fashion. Assumptions are made regarding future experience with regard to the rate of investment return on invested funds; the probability of death, disability, or other termination from employment; the rate of future salary increases; etc. The set of actuarial assumptions and the valuation method selected by the actuary become the basis for making a valuation of the pension plan. The degree of conservatism to be reflected in the actuarial assumptions is a matter of judgment of the actuary and the City offering their best estimates of anticipated experience under the plan.

An actuarial valuation does not determine ultimate pension plan costs; only the actual experience with regard to the many variables involved will establish the true cost of the plan. An actuarial valuation, however, reveals the year to year incidence of contributions necessary to soundly fund pension benefits. The incidence of contributions, also known as funding schedule, may be increasing, level, or decreasing from year to year as a percentage of payroll, depending on the actuarial funding method utilized. Annual actuarial valuations are made to adjust contributions gradually as actual experience emerges. Changes in the assumptions may be required if the experience consistently departs from the valuation assumptions.

Description of Valuation Method-Entry Age Normal

Actuarial Liabilities and contributions shown in this report are computed using the Entry Age Normal method of funding.

A detailed description of the calculation follows:

A Normal Cost is the annual amount that would have to be paid for each member from his original date of entry (employment) to his assumed retirement (termination, disability, or death) date in order to fund his projected benefits, over the whole of his working life (membership in the plan). This computation is made in such a way that each year's annual payment is a level dollar.

The Unfunded/(Surplus) Actuarial Accrued Liability is determined by calculating the Present Value of Projected Benefits at that date, and subtracting the Present Value of Future Normal Costs, as determined above, together with any applicable assets of the Fund.

A Past Service Contribution (amortization payments) is calculated as the amount needed to fund the Initial Unfunded Actuarial Accrued Liability plus any changes in the Unfunded Actuarial

Section 2.2 – (Continued)

Accrued Liability due to plan changes, assumption changes or actuarial experience gain/(loss), together with interest thereon, in equal annual installments as required by the regulations.

Active participants are treated for funding purpose as terminated participants due to the ceasing of benefit accruals. Therefore, there is no normal cost, and the actuarial accrued liability is equal to the present value of their benefits.

Economic Actuarial Assumptions

Interest
Funding rates:

Pre-Retirement	7.5% per year, compounded annually, net of expenses
Post-Retirement	7.5% per year, compounded annually, net of expenses

Projected Salary Increase

Salaries are assumed to increase at 3.5% per year.

Cost of Living Increase

Post-Retirement Benefit Increase is assumed to increase at 2.0% per year.

Demographic Actuarial Assumptions

Healthy Mortality

Male:	SOA - RP 2000 Mortality Table for males with blue collar adjustment
Female:	SOA - RP 2000 Mortality Table for females with blue collar adjustment

Post Disablement Mortality

Male:	PBGC for Unhealthy Lives Table for males
Female:	PBGC for Unhealthy Lives Table for females

See the Table at the end of this section for selected rates.

Section 2.2 – (Continued)

Termination or Withdrawal from Service

Male: Twice the T-3 Table less 1951 Group Annuity Table for males

Female: Twice the T-3 Table less 1951 Group Annuity Table for males

See the Table at the end of this section for sample values.

Age at Retirement

See the Table at the end of this section for sample values.

Possibility of Disability

Male: 100% of UAW Table for males

Female: 100% of UAW Table for females

See the Table at the end of this section for selected rates.

Expenses

Reflected in the interest funding rate

Sample Annual Decrement Rates Per 100 Participants

Attained Age	Disability Males	Disability Females	Termination
20	.0300	.0400	13.1550
25	.0300	.0500	10.5408
30	.0400	.0600	9.6624
35	.0500	.0800	8.9472
40	.0700	.1000	7.6824
45	.1000	.1500	6.4298
50	.1800	.2600	3.0490
55	.3600	.4900	.6688
60	.9000	1.2100	.0000
65	.0000	.0000	.0000

Section 2.2 – (Continued)

Sample Annual Decrement Rates Per 100 Participants

Attained Age	Healthy Mortality		Post-Disability Mortality	
	Males	Females	Males	Females
20	.0345	.0191	4.83	2.63
25	.0376	.0207	4.83	2.63
30	.0726	.0293	3.62	2.37
35	.1087	.0519	2.78	2.14
40	.1371	.0878	2.82	2.09
45	.1793	.1387	3.22	2.24
50	.2412	.1963	3.83	2.57
55	.4196	.2795	4.82	2.95
60	.8270	.4949	6.03	3.31
65	1.5539	1.0398	6.78	3.70
70	2.6758	1.8634	7.39	4.11
75	4.3131	3.0887	8.42	4.92
80	7.0547	4.8953	11.28	7.46
85	11.5077	8.3100	16.82	11.28
90	18.1757	13.6686	25.25	16.82
95	25.9466	19.2564	37.89	25.25
100	34.4556	23.7467	56.84	37.89
105	39.7886	29.3116	85.77	56.84
110	40.0000	36.4617	100.00	100.00
115	40.0000	40.0000		
120	100.0000	100.0000		

Annual Decrement Rates Per 100 Participants
Retirement Age Assumptions for All Employees

Attained Age	Retirement Decrements Unsubsidized[1] Retirement	Subsidized[2] Retirement
50	0	12.5
51	0	12.5
52	0	12.5
53	0	12.5
54	0	12.5
55	10	12.5
56	5	10.0
57	5	7.5
58	5	7.5
59	5	7.5
60	5	12.5
61	5	12.5
62	25	50.0
63	15	25.0
64	15	25.0
65	50	50.0
66	50	50.0
67	50	50.0
68	50	50.0
69	50	50.0
70	100	100.0

[1] Unsubsidized means that these rates will be used when the retirement benefit is being fully actuarially reduced.
[2] Subsidized means that these rates will be used when the retirement benefit is not being fully actuarially reduced.

Section 2.2 – (Continued)

The right column in the table below is the percentage of participants assumed to have taken unreduced early retirement benefits. For example, if the first year the participant met the requirements for unreduced benefits was at age 57, then we expected 20% of them to retire, and 40% the next year, and so on up to 5 years. The assumptions used are the greater of the above table or the following table. If retirement age is due to earning 25 years of service and attaining at least age 50, the following table is also used.

Early Retirement Assumptions for Fire and Police

1st Year	20%
2nd Year	40%
3rd Year	60%
4th Year	80%
5th Year	100%
Maximum Retirement Age is 62 or 25 years of service	

Other Assumptions

Years of Service Subsequent to the Valuation Date

It is assumed that each participant will earn one year of service in each future year.

Assumed Age of Commencement for Deferred Vested Benefits

Age 65

Assumed Age of Commencement for Disabled Benefits

Age 55

Actuarial Value of Assets

Market value plus any employee and /or employer contributions due for the plan year.

Section 2.3 – Census Data

Description of Participant Data

The valuation was based on information provided by the City of Franklin as of January 1, 2013.

Active employee information consisted of:

- Name
- Employee Identification Number
- Gender
- Date of Birth
- Date of Hire
- 2012 Compensation

  Compensation was supplied on an Excel file showing each element of the definition of compensation to reconcile the compensation as reported on the Form W-2 and other reports.
- Post-Tax Contributions for 2012
- Pre-Tax Contributions for 2012
- Mandatory Contribution the pension plan for 2012
- Mandatory Contribution to 401a – defined contribution plan for 2012
- 457 contribution for 2012
- Money Purchase Contribution for 2012

Section 2.3 – (Continued)

Participant Data Reconciliation

	Active Participants	Inactive Participants			Total	Expected
		Terminated Deferred Benefits	Disabled With Deferred Benefits	Receiving Benefits		
1. As of January 1, 2012	591	114	4	121	830	
2. Changes in Status:						
a. Age Retirements	(14)	(1)	0	15	0	19
b. Disability Terminations	0	0	0	0	0	1
c. Deaths Without Benefits	(1)	0	0	(8)	(9)	2
d. Deaths With Benefits	0	0	0	0	0	1
e. Non-Vested Terminations	(7)	xxx	xxx	0	(7)	10
f. Vested Terminations	(9)	9	0	xxx	0	28
g. Expiration of Benefits	xxx	xxx	xxx	0	0	
h. Lump Sums	0	0	0	0	0	0
i. Data Correction	0	1	0	0	1	
j. New Entrants	12	0	xxx	0	12	0
3. Net Change	(19)	9	0	7	(3)	61
4. As of December 31, 2012	572	123	4	128	827	

Section 3 – Supplemental Information

Section 3.1 shows historical information of the plan.

Section 3.2 presents demographic profiles of active participants.

Section 3.1 – Historical Yearly Comparison

	01/01/2009	01/01/2010	01/01/2011	01/01/2012 [1]	01/01/2013 [1]
Number of Active Participants	557	609	586	591	572
Expected Payroll	$ 26,835,033	$ 29,389,265	$ 27,958,552	$ 29,869,786	$ 28,902,947
Average Earnings	$ 48,264	$ 52,858	$ 50,285	$ 53,723	$ 51,984
Number of Active Participants Age 65 or Over	8	8	8	14	13
Number of Retired Participants and Beneficiaries	96	100	110	121	128
Pensions to be Paid	$ 1,504,758	$ 1,702,249	$ 2,029,872	$ 2,286,300	$ 2,653,331
Number of Vested Terminated Participants	100	99	109	114	123
Annual Pensions to be Paid	$ 644,831	$ 637,925	$ 718,321	$ 744,140	$ 811,172
Number of Disabled Participants	5	5	4	4	4
Annual Pensions to be Paid	$ 277,735	$ 27,735	$ 27,735	$ 26,302	$ 26,750
Present Value of Benefits	$ 78,760,467	$ 81,721,441	$ 86,512,092	$ 95,385,041	$ 100,398,225
Present Value of Accumulated Benefits	$ 45,852,365	$ 51,465,753	$ 57,900,531	$ 64,505,222	$ 69,278,944
Actuarial Value of Assets	$ 32,235,206	$ 43,406,020	$ 54,086,646	$ 55,241,467	$ 63,532,465
Normal Cost Rate	19.9 %	16.8 %	15.1 %	6.4 %	6.9 %
Normal Cost	$ 5,350,852	$ 4,949,182	$ 4,212,627	$ 1,908,874	$ 1,988,187
Recommended Contribution as of July 1/Quarterly	$ 5,697,520	$ 5,282,084	$ 4,495,984	$ 4,251,668	$ 4,033,372
Contribtuion as rate of Payroll	21.2 %	18.0 %	16.1 %	14.2 %	14.0 %
Actual Contribution	$ 9,458,630	$ 3,188,751	$ 4,372,820	$ 4,251,668	$ N/A

[1] Funding Method Changed for 2012

Section 3.2 – Active Participant Demographic Tables

The following demographic tables are presented for the four classifications of participants.

- Table A—Annual Earnings by Age Groups
- Table B—Annual Earnings by Service Groups
- Table C—Service Groups by Age Groups
- Schedule of Annual Benefits for Non-Active Participants

Section 3.2 – (Continued)

TABLE A TIER ONE
ANNUAL EARNINGS BY AGE GROUPS

	MALE			FEMALE			ALL		
Age Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	5	204,270	40,854	1	46,079	46,079	6	250,349	41,725
30-34	41	1,894,566	46,209	11	521,884	47,444	52	2,416,449	46,470
35-39	48	2,377,035	49,522	3	148,401	49,467	51	2,525,436	49,518
40-44	74	3,945,103	53,312	11	544,106	49,464	85	4,489,209	52,814
45-49	56	3,111,104	55,555	7	357,407	51,058	63	3,468,511	55,056
50-54	39	2,214,069	56,771	9	453,332	50,370	48	2,667,401	55,571
55-59	20	1,122,398	56,120	13	597,268	45,944	33	1,719,666	52,111
60-64	16	1,094,107	68,382	9	426,770	47,419	25	1,520,877	60,835
65-69	7	364,536	52,077	3	118,121	39,374	10	482,657	48,266
70-74	0	0	0	1	43,445	43,445	1	43,445	43,445
75-79	0	0	0	1	39,386	39,386	1	39,386	39,386
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	306	16,327,188	53,357	69	3,296,200	47,771	375	19,623,388	52,329

TABLE B for TIER ONE
ANNUAL EARNINGS BY SERVICE GROUPS

	MALE			FEMALE			ALL		
Service Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
Total Groups 0-4	0	0	0	0	0	0	0	0	0
5-9	95	4,564,784	48,050	31	1,470,999	47,452	126	6,035,783	47,903
10-14	98	4,891,186	49,910	21	963,487	45,880	119	5,854,674	49,199
15-19	61	3,478,311	57,021	10	496,994	49,699	71	3,975,305	55,990
20-24	23	1,543,795	67,122	2	99,592	49,796	25	1,643,387	65,735
25-29	25	1,580,878	63,235	4	212,329	53,082	29	1,793,207	61,835
30-34	3	224,642	74,881	0	0	0	3	224,642	74,881
35-39	1	43,593	43,593	1	52,797	52,797	2	96,390	48,195
40+	0	0	0	0	0	0	0	0	0
Total All Groups	306	16,327,188	53,357	69	3,296,200	47,771	375	19,623,388	52,329

Section 3.2 – (Continued)

TABLE C FOR TIER 1
SERVICE GROUPS BY AGE GROUPS

AGE GROUP	Service Group										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	Percentage
0-19	0	0	0	0	0	0	0	0	0	0	0.0%
20-24	0	0	0	0	0	0	0	0	0	0	0.0%
25-29	0	6	0	0	0	0	0	0	0	6	1.6%
30-34	0	32	20	0	0	0	0	0	0	52	13.9%
35-39	0	21	21	9	0	0	0	0	0	51	13.6%
40-44	0	16	35	28	6	0	0	0	0	85	22.7%
45-49	0	14	14	15	9	11	0	0	0	63	16.8%
50-54	0	12	11	8	7	9	1	0	0	48	12.8%
55-59	0	12	8	3	2	5	1	2	0	33	8.8%
60-64	0	9	7	4	1	3	1	0	0	25	6.7%
65-69	0	3	3	4	0	0	0	0	0	10	2.7%
70-74	0	0	0	0	0	1	0	0	0	1	0.3%
75-79	0	1	0	0	0	0	0	0	0	1	0.3%
80-84	0	0	0	0	0	0	0	0	0	0	0.0%
85+	0	0	0	0	0	0	0	0	0	0	0.0%
TOTAL	0	126	119	71	25	29	3	2	0	375	100.0%
	0.0%	33.6%	31.7%	18.9%	6.7%	7.7%	0.8%	0.5%	0.0%	100.0%	

	Number	Averge Age	Average Service	
General Employee	177	50	14	47.20%
Fire	101	44	15	26.93%
Police	97	44	15	25.87%
Total	375	46	15	

TABLE A TIER 2
ANNUAL EARNINGS BY AGE GROUPS

	MALE			FEMALE			ALL		
Age Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	19	823,496	43,342	2	68,942	34,471	21	892,438	42,497
30-34	26	1,296,230	49,855	11	541,106	49,191	37	1,837,336	49,658
35-39	21	908,686	43,271	7	388,768	55,538	28	1,297,454	46,338
40-44	21	943,161	44,912	3	128,263	42,754	24	1,071,423	44,643
45-49	13	691,458	53,189	3	169,806	56,602	16	861,264	53,829
50-54	11	490,632	44,603	3	115,102	38,367	14	605,734	43,267
55-59	4	265,741	66,435	4	211,476	52,869	8	477,217	59,652
60-64	3	115,761	38,587	3	122,351	40,784	6	238,112	39,685
65-69	1	51,797	51,797	0	0	0	1	51,797	51,797
70-74	2	80,744	40,372	0	0	0	2	80,744	40,372
75-79	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	121	5,667,706	46,841	36	1,745,813	48,495	157	7,413,519	47,220

TABLE B FOR TIER 2
ANNUAL EARNINGS BY SERVICE GROUPS

	MALE			FEMALE			ALL		
Service Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
2	1	34,865	34,865	3	176,844	58,948	4	211,709	52,927
3	8	389,262	48,658	3	131,472	43,824	11	520,734	47,339
4	43	1,978,513	46,012	13	636,124	48,933	56	2,614,637	46,690
Total Groups 0-4	52	2,402,639	46,205	19	944,440	49,707	71	3,347,080	47,142
5-9	69	3,265,067	47,320	17	801,373	47,140	86	4,066,440	47,284
10-14	0	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40+	0	0	0	0	0	0	0	0	0
Total All Groups	121	5,667,706	46,841	36	1,745,813	48,495	157	7,413,519	47,220

TABLE C TIRE 2 EMPLOYEES
SERVICE GROUPS BY AGE GROUPS

AGE	Service Group										
GROUP	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	Percentage
0-19	0	0	0	0	0	0	0	0	0	0	0.0%
20-24	0	0	0	0	0	0	0	0	0	0	0.0%
25-29	10	11	0	0	0	0	0	0	0	21	13.4%
30-34	17	20	0	0	0	0	0	0	0	37	23.6%
35-39	11	17	0	0	0	0	0	0	0	28	17.8%
40-44	10	14	0	0	0	0	0	0	0	24	15.3%
45-49	10	6	0	0	0	0	0	0	0	16	10.2%
50-54	6	8	0	0	0	0	0	0	0	14	8.9%
55-59	5	3	0	0	0	0	0	0	0	8	5.1%
60-64	1	5	0	0	0	0	0	0	0	6	3.8%
65-69	1	0	0	0	0	0	0	0	0	1	0.6%
70-74	0	2	0	0	0	0	0	0	0	2	1.3%
75-79	0	0	0	0	0	0	0	0	0	0	0.0%
80-84	0	0	0	0	0	0	0	0	0	0	0.0%
85+	0	0	0	0	0	0	0	0	0	0	0.0%
TOTAL	71	86	0	0	0	0	0	0	0	157	100.0%
	45.2%	54.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

	Number	Average Age	Average Service	
General	91	44	5	58.00%
Fire	32	36	5	20.51%
Police	33	36	5	21.15%
	156	40	5	

Section 3.2 – (Continued)

TABLE A FOR TIER 3
ANNUAL EARNINGS BY AGE GROUPS

	MALE			FEMALE			ALL		
Age Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	1	26,458	26,458	1	26,458	26,458
25-29	11	410,618	37,329	2	62,609	31,304	13	473,227	36,402
30-34	4	953,486	238,372	1	34,508	34,508	5	987,994	197,599
35-39	2	82,388	41,194	0	0	0	2	82,388	41,194
40-44	9	1,040,500	115,611	0	0	0	9	1,040,500	115,611
45-49	3	100,927	33,642	1	40,263	40,263	4	141,190	35,298
50-54	2	68,195	34,097	0	0	0	2	68,195	34,097
55-59	3	115,104	38,368	0	0	0	3	115,104	38,368
60-64	1	53,350	53,350	0	0	0	1	53,350	53,350
65-69	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
TOTAL	35	2,824,569	80,702	5	163,838	32,768	40	2,988,407	74,710

TABLE B FOR TIER 3
ANNUAL EARNINGS BY SERVICE GROUPS

	MALE			FEMALE			ALL		
Service Group	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings	Number of People	Total Annual Earnings	Average Annual Earnings
0	11	1,913,676	173,971	1	26,458	26,458	12	1,940,134	161,678
1	18	695,449	38,636	1	29,727	29,727	19	725,175	38,167
2	6	215,444	35,907	3	107,653	35,884	9	323,097	35,900
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
Total Groups 0-4	35	2,824,569	80,702	5	163,838	32,768	40	2,988,407	74,710
5-9	0	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40+	0	0	0	0	0	0	0	0	0
Total All Groups	35	2,824,569	80,702	5	163,838	32,768	40	2,988,407	74,710

TABLE C FOR TIRE 3
SERVICE GROUPS BY AGE GROUPS

AGE GROUP	Service Group										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	Percentage
0-19	0	0	0	0	0	0	0	0	0	0	0.0%
20-24	1	0	0	0	0	0	0	0	0	1	2.5%
25-29	13	0	0	0	0	0	0	0	0	13	32.5%
30-34	5	0	0	0	0	0	0	0	0	5	12.5%
35-39	2	0	0	0	0	0	0	0	0	2	5.0%
40-44	9	0	0	0	0	0	0	0	0	9	22.5%
45-49	4	0	0	0	0	0	0	0	0	4	10.0%
50-54	2	0	0	0	0	0	0	0	0	2	5.0%
55-59	3	0	0	0	0	0	0	0	0	3	7.5%
60-64	1	0	0	0	0	0	0	0	0	1	2.5%
65-69	0	0	0	0	0	0	0	0	0	0	0.0%
70-74	0	0	0	0	0	0	0	0	0	0	0.0%
75-79	0	0	0	0	0	0	0	0	0	0	0.0%
80-84	0	0	0	0	0	0	0	0	0	0	0.0%
85+	0	0	0	0	0	0	0	0	0	0	0.0%
TOTAL	40	0	0	0	0	0	0	0	0	40	100.0%
	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

	number	Average age	
General City	25	39	63%
Fire	6	31	15%
Police	9	35	23%
	40	38	100%

TABLE C FOR TIER 4 EMPLOYEES
SERVICE GROUPS BY AGE GROUPS

AGE GROUP	Service Group 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	Percentage
0-19	0	0	0	0	0	0	0	0	0	0	0.0%
20-24	3	0	0	0	0	0	0	0	0	3	8.6%
25-29	10	0	0	0	0	0	0	0	0	10	28.6%
30-34	8	0	0	0	0	0	0	0	0	8	22.9%
35-39	3	0	0	0	0	0	0	0	0	3	8.6%
40-44	3	0	0	0	0	0	0	0	0	3	8.6%
45-49	3	0	0	0	0	0	0	0	0	3	8.6%
50-54	3	0	0	0	0	0	0	0	0	3	8.6%
55-59	2	0	0	0	0	0	0	0	0	2	5.7%
60-64	0	0	0	0	0	0	0	0	0	0	0.0%
65-69	0	0	0	0	0	0	0	0	0	0	0.0%
70-74	0	0	0	0	0	0	0	0	0	0	0.0%
75-79	0	0	0	0	0	0	0	0	0	0	0.0%
80-84	0	0	0	0	0	0	0	0	0	0	0.0%
85+	0	0	0	0	0	0	0	0	0	0	0.0%
TOTAL	35	0	0	0	0	0	0	0	0	35	100.0%
	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

	number	Age
General City Employees	22	37
Fire	9	31
Police	4	36
Total	35	36

Section 3.2 – (Continued)

SCHEDULE OF ANNUAL BENEFITS FOR NON-ACTIVE PARTICIPANTS

Age	Terminated Vested		Disabled		Retired	
	Number	Benefit	Number	Benefit	Number	Benefit
Under 45	35	259,477	0	0	0	0
45 to 49	21	153,573	0	0	6	199,106
50 to 54	19	167,751	0	0	11	341,901
55 to 59	22	114,171	1	6,826	17	450,323
60 to 64	20	113,915	0	0	23	621,945
65 to 69	6	2,285	3	19,924	25	495,233
70 to 74	0	0	0	0	16	196,648
75 to 79	0	0	0	0	15	195,732
80 to 84	0	0	0	0	11	134,986
85 to 89	0	0	0	0	2	14,851
90 & up	0	0	0	0	0	0
Total	123	$ 811,172	4	$ 26,750	128	$ 2,653,331

Average Age	50.7	64.8	66.1

Average Annual Benefit	$ 6,595	$ 6,688	$ 20,729