Pension Task Force

June 16, 2011

Universal Retirement Funding Equation
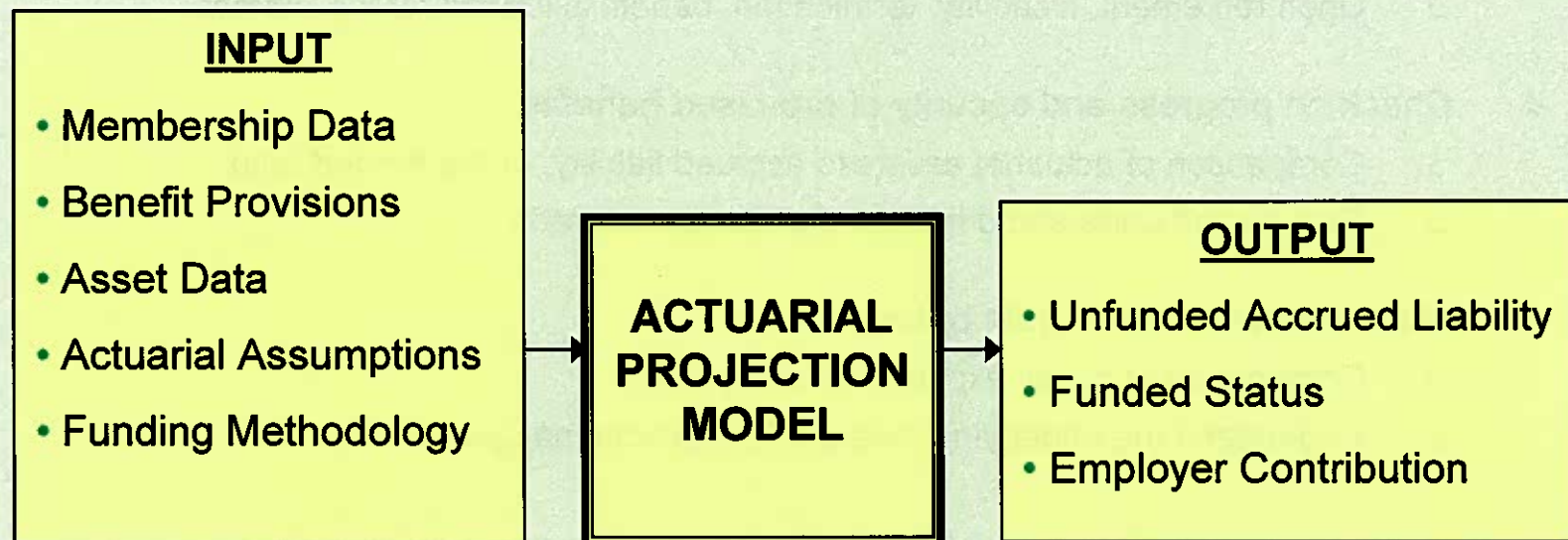

Contributions + Investment Income = Benefits Paid + Expenses

Objectives of Actuarial Valuation

- Determine contribution based on funding policy
  - Fund benefits over members' worklife
  - Upon retirement, disability, termination, benefit is funded for the member

- Check on progress and security of promised benefits
  - Comparison of actuarial assets to accrued liability, or the funded ratio
  - Review and understand the trend of the funded ratio

- Measure net actuarial gain or loss
  - Comparison of actual experience to expected
  - Understand the underlying reasons for the actuarial gain or loss

Actuarial Valuation Process

INPUT

- Membership Data
- Benefit Provisions
- Asset Data
- Actuarial Assumptions
- Funding Methodology

ACTUARIAL PROJECTION MODEL

OUTPUT

- Unfunded Accrued Liability
- Funded Status
- Employer Contribution

Actuarial Assumptions

- **Demographic**
  - ❏ Service retirement
  - ❏ Disability retirement
  - ❏ Death in active service

    Early Retirement
    Withdrawal (termination)
    Death after retirement

- **Economic**

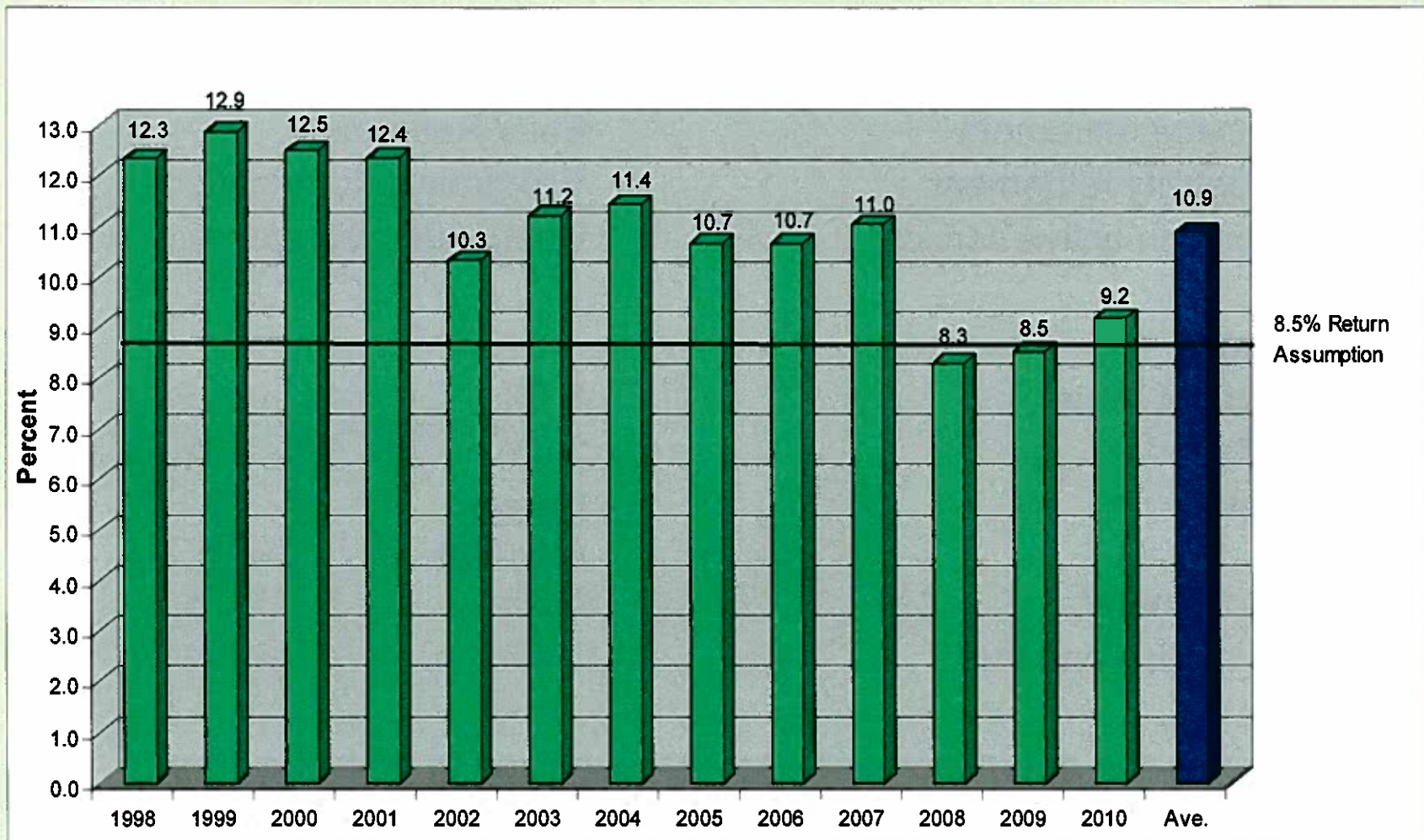|	Career Average	ATB*
❏ Rate of return	8.5%	
❏ Inflation	3.0%	
❏ Salary		
▪ General	4.6%	3.0%
▪ Police and fire	5.5%	3.0%

* Across-the-board increase assumptions used to project current salaries for the position a duty disabled member held before becoming disabled.

ERS 20 Year Period Rolling Investment Returns
1978-2010

Actuarial Methods

- **Once you know how much to fund, Actuarial Methods determine how you will fund Demographic**
- **Many Components**
  - Cost method – Allocates total costs to past, current and future
    - Actuarial accrued liability – past service
    - Normal Cost – current years service
  - Amortization method – level percent of pay over 24 years as of January 1, 2010
  - Actuarial Value of assets – 5 year smoothed with a 20% corridor
- **Choice of components is a balance between**
  - Responsiveness to actuarial experience
  - Contribution stability
- **Annual employer contribution is the sum of normal cost plus an adjustment for the amount of assets you have to cover your actuarial accrued liability**

Core Actuarial Valuation Results

Item	2009	2010
Assets:		
Market Value of Assets	$ 3,399,793	$ 4,020,640
Market Adjustment	676,504	793,762
Actuarial Value of Assets	$ 4,076,297	$ 4,814,402
Normal Cost:		
Total	$ 84,773	$ 86,966
Estimated Member Contributions	33,863	34,919
Employer Normal Cost	$ 50,910	$ 52,047
Liabilities:		
Actuarial Accrued Liability		
Annuitants	$ 2,527,962	$ 2,637,961
Inactive Members		
Member Contributions	68,083	67,978
Employer Financed Portion	27,020	24,205
Active Members		
Member Contributions	465,116	483,627
Employer Financed Portion	1,024,908	1,055,553
Total Actuarial Accrued Liability	$ 4,113,089	$ 4,269,324

(in thousands)

City Employes' Retirement System
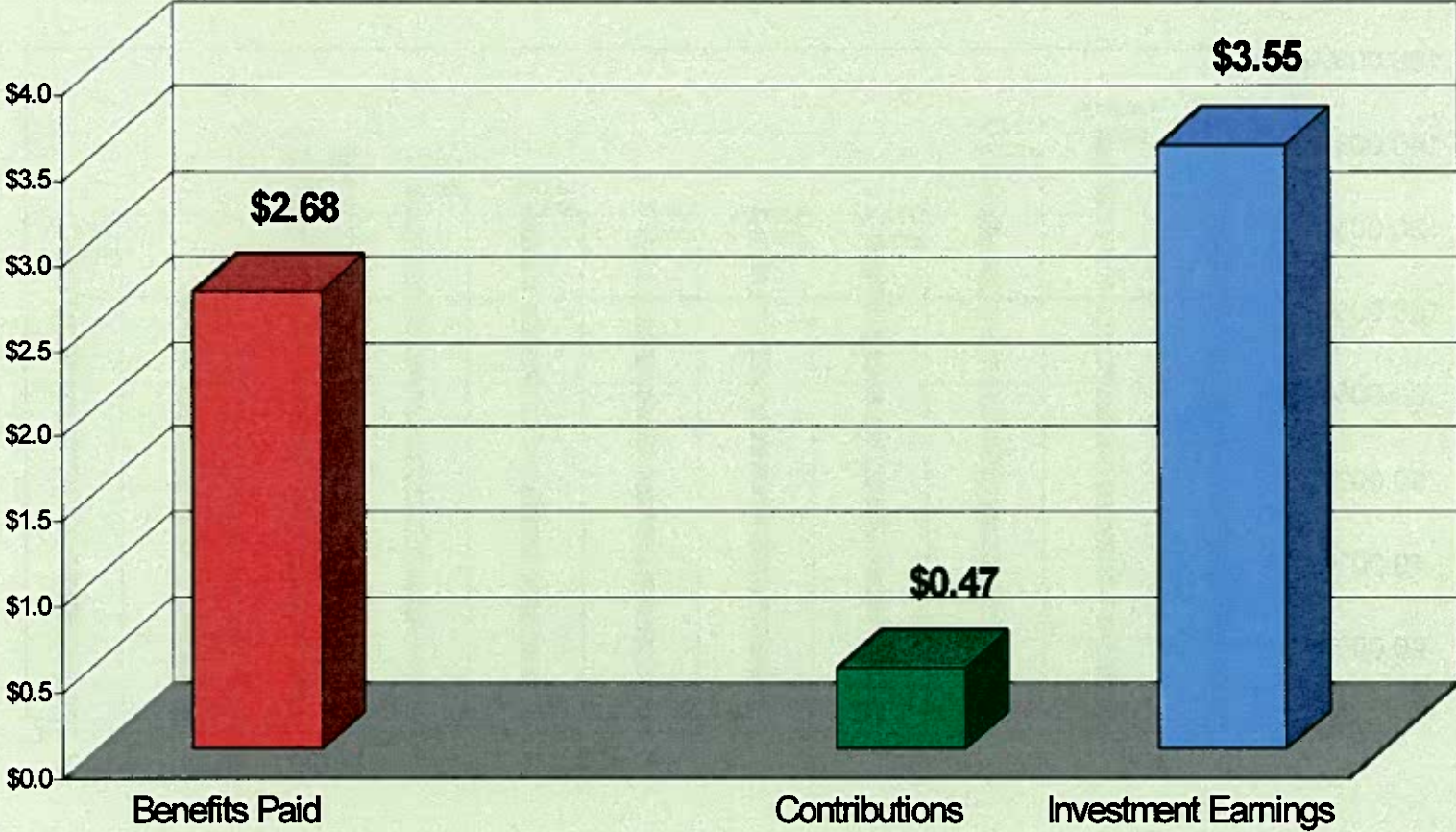# Year End Funded Ratio* Analysis
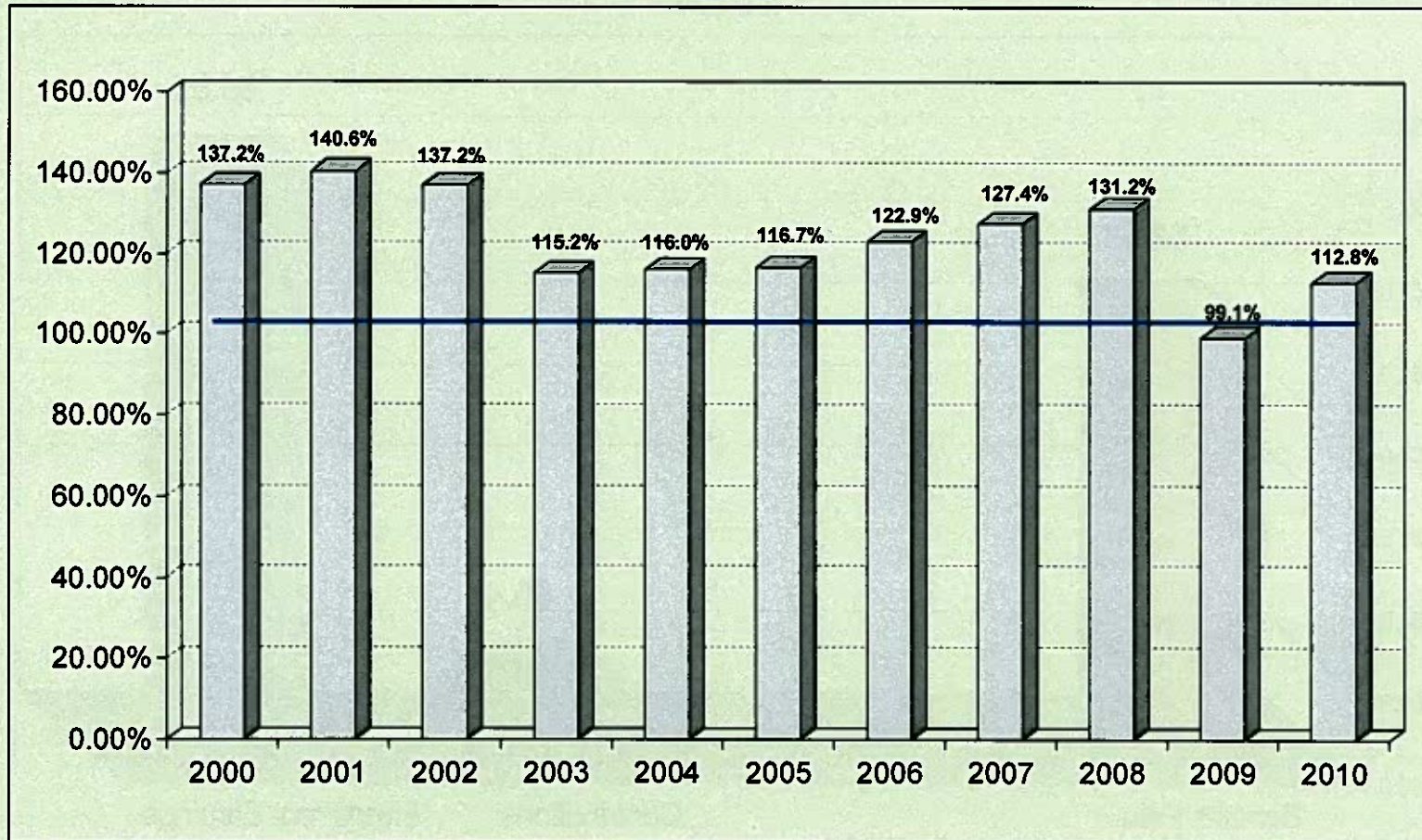
*Actuarial Value of Pension Fund Assets
    PV of Accumulated Plan Benefits

Source: City of Milwaukee Employes' Retirement System

1995 - 2009
Benefit Payments and their Sources
($ Billions)

Chart data:
- Benefits Paid: $2.68
- Contributions: $0.47
- Investment Earnings: $3.55

Y-axis: $0.0, $0.5, $1.0, $1.5, $2.0, $2.5, $3.0, $3.5, $4.0

City of Milwaukee Employes' Retirement System
Combined Fund contributions under various funded statuses as of January 1, 2010: With and without the full funding limit

Funded Percentage 112.2%
Contribution without FFL $16,371,000
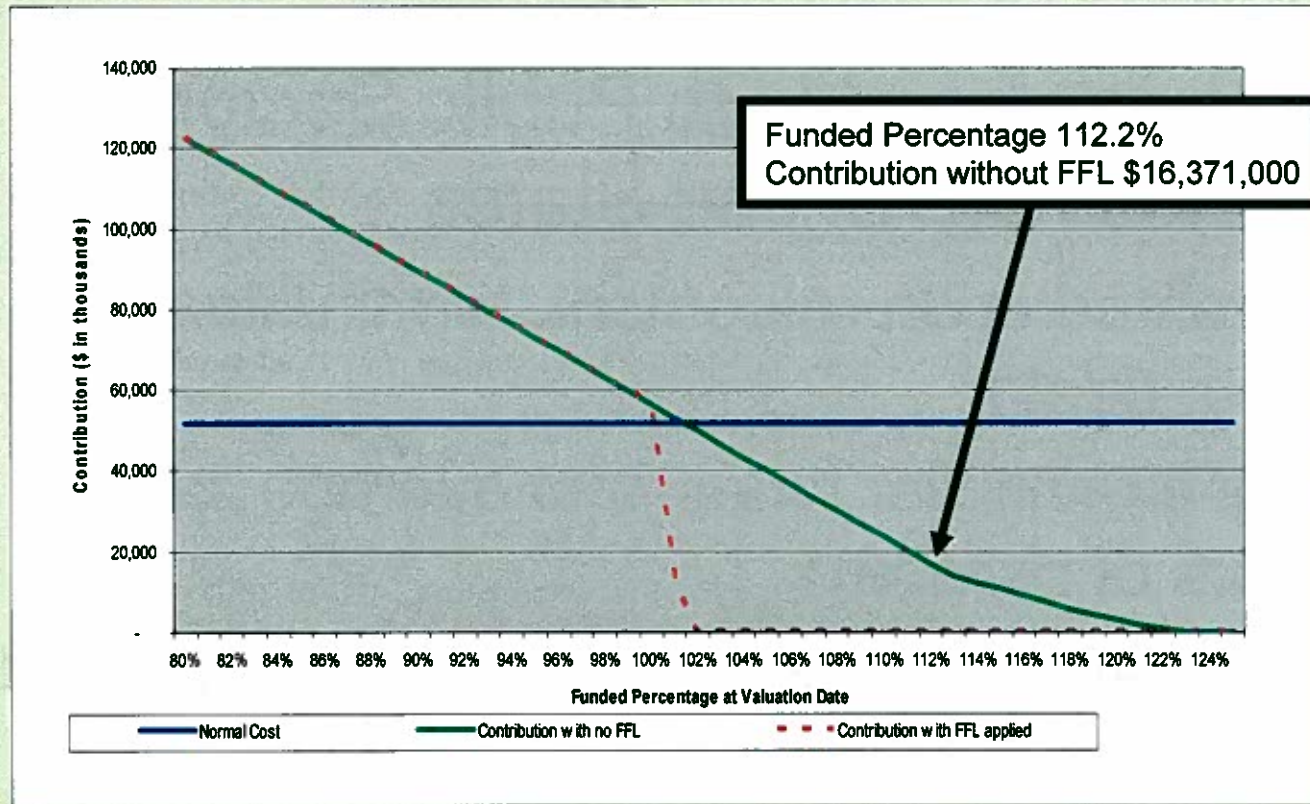
Funded %	Normal Cost	Contribution with FFL applied	Contribution with no FFL
80%	51,806	122,667	122,667
61%	51,806	119,363	119,363
82%	51,806	116,059	116,059
83%	51,806	112,756	112,756
84%	51,806	109,452	109,452
85%	51,806	106,148	106,148
86%	51,806	102,844	102,844
87%	51,806	99,541	99,541
88%	51,806	96,237	96,237
89%	51,806	92,934	92,934
90%	51,806	89,629	89,629
91%	51,806	86,327	86,327
92%	51,806	83,022	83,022
93%	51,806	79,719	79,719
94%	51,806	76,414	76,414
95%	51,806	73,111	73,111
96%	51,806	69,806	69,806
97%	51,806	66,505	66,505
98%	51,806	63,200	63,200
99%	51,806	59,898	59,898
100%	51,806	56,593	56,593
101%	51,806	12,189	53,288
102%	51,806	-	49,986
103%	51,806	-	46,681
104%	51,806	-	43,379
105%	51,806	-	40,074
106%	51,806	-	36,771
107%	51,806	-	33,466
108%	51,806	-	30,163
109%	51,806	-	26,658
110%	51,806	-	23,557
111%	51,806	-	20,251
112%	51,806	-	16,949
113%	51,806	-	13,922
114%	51,806	-	12,298
115%	51,806	-	10,673
116%	51,806	-	9,048
117%	51,806	-	7,422
118%	51,806	-	5,798
119%	51,806	-	4,172
120%	51,806	-	2,837
121%	51,806	-	1,820
122%	51,806	-	804
123%	51,806	-	-
124%	51,806	-	-
125%	51,806	-	-

Note: Contributions described above do not include the members' portion that the city contributes on their behalf.

ERS Provisions

- **The provisions of ERS are complex**

- **Structure is comparable to Public Sector benefits across the United States**

    - Benefit granted upon retirement, termination, disability or death

    - Amount is a multiplier times final average salary times years of service

    - Pension escalator varies depending on retirement date and eligible group

Summary of ERS Benefits

- **General City Employees**
  - Service Retirement – age 60 or Age 55 with 30 years service = Years of Service x 2% Final Average Salary plus COLA; ex. Elected officials (2.6% for service prior to 1996 and 2.5% thereafter; 2% for the Mayor)
  - Early Retirement (reduced benefit) – age 55 with 15 Years Service or deferred vested status
  - Employee Contributions – 5.5% of covered wages "picked–up" by employer under IRC Section 414(h); except certain new hires after 1/1/2010 have pre-tax payroll deductions; 7% for elected officials

- **Fire Fighters And Police Officers**
  - Service Retirement Allowance – FF age 57; Age 49 with 22 Years of Service = Years of Service x 2.5% Final Average Salary plus COLA
  - Service Retirement Allowance - Police age 57; 25 Years of Service at any age = Years of Service x 2.5% Final Average Salary plus COLA
  - Employee contributions – 7% of covered wages "picked–up" by employer under IRC Section 414(h)

- **Ancillary Benefits**
  - Disability (duty and non-duty related) benefit levels
  - Death (duty and non-duty related) benefits

MILWAUKEE
ERS
Employer Retirement System

Cost "Levers"

- **Short term, costs can temporarily be driven by assumptions and methods**
  - Assumptions and methods reviewed every five year
  - Next experience review before 2013 valuation
- **Long term, costs driven by**
  - Composition of your group
  - Underlying benefit provisions

Cost "Levers"

- Retirement age
- Multiplier
- Pension escalators
- Final Average Earnings period
- Disability benefits (for public safety)
- Death benefits
- Termination benefits

Cost "Levers"

- **Impact of changes not immediate**
  - Changes are either for future service or more likely, future hires
- **Of $4.3 billion in actuarial accrued liability,**
  - $2.6 billion is for current retirees
    - Generally locked in cost
  - $1.7 billion is for actives
    - May be able to impact in the future.
- **Normal cost of $86 million can be reduced over time**
  - Immediate if changes are for future service
  - Over a generation if changes are for future hires