RETIREMENT SYSTEM FOR THE GENERAL EMPLOYEES OF THE UTILITY BOARD OF THE CITY OF KEY WEST, FLORIDA

AGENDA

Pension Board of Trustees Workshop 1:30 p.m. – Tuesday March 19, 2019

1. Discussion items
   a. Date of participation for rehired employees and pension benefit calculation
   b. Pre-retirement benefits for active members without a spouse, domestic partner or child[ren] under the age of 21 or 25.

2. Adjournment

*Item is considered to be routine and enacted by one motion with no separate discussion, unless requested by a Pension Board Member or Citizen, in which event the item will be considered independently.

DISABILITY INFORMATION: In accordance with the Americans with Disabilities Act and F.S.S. 286.26, persons with disabilities needing special accommodation to participate in this meeting should contact Kim Free, Plan Administrator, no later than seven days prior to the proceeding at 305-295-1011 for assistance. If hearing impaired, call the Florida Relay Service Numbers at 800-955-8771 (TDD) or 800-955-8770 (VOICE) for assistance.

APPEAL NOTICE: If a person decides to appeal any decision made by the Board, with respect to any matter considered at such meeting or hearing, that person will need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which appeal is to be based.

GRS Retirement Consulting

P: 954.527.1616 | F: 954.525.0083 | www.grsconsulting.com

August 29, 2018

Pension Board
c/o Mr. Jack Wetzler
Assistant General Manager and
Chief Financial Officer
Utility Board of the City of Key West
Post Office Box 6100
Key West, Florida 33041-6100

Re: Rehired Employees

Dear Jack:

As requested, we have reviewed the Plan Document with respect to rehired employees under the Retirement System for General Employees of the Utility Board of the City of Key West (Retirement System). As stated by the Plan Attorney, we believe the Plan Document is does not spell out how rehired employees should be treated.

We understand the Board of Trustees has requested potential options for treatment of rehired employees under the Retirement System.

Option 1 – Upon rehire, treat the rehired employee as a new hire for all Retirement System purposes (prior service does not count towards eligibility, vesting, credited service – including 30-year cap, etc.). The rehired employee would earn a benefit calculated under the career average compensation / 2% formula for employees hired on or after June 1, 2010.

We understand this option is how rehired employees who were not vested prior to rehire have been handled.

Under this option, an employee who was vested prior to rehire would potentially earn two benefits under the System – one for the vested benefit prior to rehire (frozen) and one for the benefit earned for service following rehire, if any.

Option 1 would not increase the Retirement System's liabilities for any benefit earned prior to rehire.

Option 2 – Upon rehire, treat the employee as a new hire with a benefit calculated under the career average compensation / 2% formula for employees hired on or after June 1, 2010; however, prior service would count for eligibility and vesting purposes. If the employee was vested during the prior period of service the prior service would count towards meeting the maximum 30-year cap on credited service. If the employee was vested during the prior period of service, the employee would earn two benefits under the Retirement System as for Option 1.

Option 2 would not increase the Retirement System's liabilities for any benefit earned prior to rehire. However, Option 2 would increase funding liabilities for any potential benefit projected for service following rehire.

Option 3 – Upon rehire, treat the employee as an employee based on their original date of hire with a break in service for the period of time they were not employed. Prior service would count for all purposes (eligibility, vesting, credited service – including 30 year cap, etc.). Under Option 3 the rehired employee would earn one benefit under the Retirement System.

Under Option 3, the rehired employee's benefit would be based upon the benefit structure based upon the original hire date.

Option 3 would increase the Retirement System's funding liabilities for both any benefit earned prior to rehire and for or any potential benefit projected for service following rehire.

We believe other options or a combination of the above options could be constructed.

We look forward to further discussion regarding this matter.

If you should have any question concerning the above, please do not hesitate to contact us.

Sincerest regards,

L. F. Wilson

Lawrence F. Wilson, A.S.A.
Senior Consultant and Actuary

cc: Mr. Harry L. Bethel, Chairman
Ronald J. Cohen, Esq.

Rice Pugatch Robinson Storfer & Cohen, PLLC

101 NORTHEAST THIRD AVENUE, SUITE 1800
FORT LAUDERDALE, FLORIDA 33301
TELEPHONE: (954) 462-8000
FACSIMILE: (954) 462-4300

www.rprslaw.com

August 20, 2018

VIA EMAIL

Chairman and Members of the Board of Trustees
Retirement System for the Employees of the
Utility Board of the City of Key West, Florida
Post Office Box 6100
Key West, FL 33041-6100

Re: Rehire of Employee

I have been asked a question by Jack Wetzler, Secretary/Treasurer about a former employee who was employed by the Utility Board from 2008 to 2014, and is going to be hired again by the Utility Board. The question that Mr. Wetzler posed to me is whether the Credited Service that the employee previously earned can count as Credited Service to be added to the Credited Service he earns with his new stint of employment.

I believe that the matter involves the interpretation of the plan document, and as you all know, the interpretation of the plan document is ultimately the determination of the Board of Trustees. I write this letter to guide you in your consideration of this matter.

I believe that we can start with the proposition that if the member were not rehired, he would be entitled to a Termination Retirement Benefit pursuant to 4.02(b) of the plan document. That section provides in part that "For Employees hired on or before May 31, 2010, the annual termination retirement benefit shall be in an amount equal to two point four percent (2.4%) of the Final Average Compensation times years of Credited Service times the Member's vested percentage." Thus, anyone with more than five years of service is entitled to receive a termination benefit.

I believe that 2.07 of the plan document may also enter into your consideration. It provides as follows:

> Credited Service means the total number of completed years and months of active service a Member performs from the later of: April 9, 1954; or such Member's Date of Hire (or probationary period) to the earlier of: such Member's date of termination; or retirement. Buy-back for Credited Service is permitted under the following circumstance: Members who were employed on or before June 30,

> 1979, were permitted to buy Credited Service for the period of employment from August 16, 1943 to April 9, 1954. Except with respect to a Member entitled to Credited Service as both an Employee and a Member of the Utility Board, Credited Service is limited to 30 years. However, Members with thirty (30) or more years of Credited Service as of November 23, 1998, will be limited to thirty-five (35) years of Credited Service. Credited Service for an elected official will be 4 years upon completion of a 4-year term and Credited Service for a Utility Board Chairman will be 2 years upon completion of a 2-year term.

The important part of this is that Credited Service means a total number of completed years and months of active service a Member performs from "such Member's Date of Hire (or probationary period) to the earlier of: such Member's date of termination; or retirement."

I believe that these two sections are susceptible to different interpretations. I believe that the two differing interpretations are based in large measure on the meaning of the "date of termination" as used in section 2.07. When this member stopped working in 2008, was that his date of termination? When he separates from service in the future, following this stint of employment, will that be a second, distinct date of termination of employment? Will receive a benefit based on his first stint of employment and if he stays employed for a sufficient period of time, a second benefit based on his future employment? Or when the employee separates from service in the future, will that be his date of termination so that the employee will have the period of time of his first employment added to the second period of employment to determine his Credited Service? Will he receive one benefit, adding together the time from his first stint of employment with his second stint of employment, or will he receive a benefit based on his first stint of employment (based on his vested percentage), and a second benefit based on his second stint of employment (assuming he has enough Credited Service or reaches the age requirement). (There is not provision for this member to buy the service in between those dates of employment).

I believe that there some rules of interpretation that may assist you. The Florida Supreme Court ruled in the case involving the Florida retirement system that "pension statutes are to be liberally construed in favor of the intended recipients." *Scott v. Williams,* 107 So. 3d 379 (Fla. 2013).

Also, the word termination is not defined in our plan document. When a word is not defined, it is appropriate to use the dictionary definition. Merriam-Webster online dictionary defines termination as "End in time or existence." You are free to look up other definitions of "Termination." I have discussed this matter with Larry Wilson, your actuary. He says that in other plans that do not specifically provide for what happens in a case like this, the service is usually linked up, so that the new service and the old service both count towards Credited Service.

Very truly yours,
RICE PUGATCH ROBINSON STORFER & COHEN, PLLC

Ronald J. Cohen
For the Firm

RJC/mlk

J:\WPDocs\22014.001 Key West General Employees' Retirement System\Correspondence\023005-XP-8.16.18-Ltr to Chair and Members of Board re rehire v5 clean.doc

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P: 954.527.1616 | F: 954.525.0083 | www.grsconsulting.com

August 1, 2018

Mr. Jack Wetzler
Assistant General Manager and
Chief Financial Officer
Utility Board of the City of Key West
Post Office Box 6100
Key West, Florida 33041-6100

Re: Retirement System for General Employees of the Utility Board of the City of Key West Actuarial Study as of January 1, 2018

Dear Jack:

As requested, we are pleased to provide our Actuarial Study as of January 1, 2018 to determine the financial effect of proposed benefit changes under the Retirement System for General Employees of the Utility Board of the City of Key West (System).

Background – Currently the System provides the following pre-retirement survivor benefits:

> In the case of death of a member while currently employed, the amount of the projected benefit which such member would have received had the member continued employment until normal retirement date at the current rate of pay shall be determined. Each Plan Member may elect survivor payment under Option 1 or Option 2, however, Option 2 is only available if the Plan Member has children less than 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security).
>
> Option 1, 75% of the benefit calculated above payable during the remaining lifetime of the spouse or domestic partner.
>
> Option 2, 100% of the benefit calculated above payable until the youngest child is 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security). Upon attainment of age 21 (age 25 provided the child is a full-time student in college or disabled under Social Security) by the youngest child, 60% of the benefit calculated above payable during the remaining lifetime of the surviving spouse or domestic partner.
>
> Notwithstanding the above, the minimum death benefit paid shall not be less than the accumulated employee contributions, if any, as of date of death.

Currently the System does not provide a pre-retirement survivor benefits for active Members without a spouse, domestic partner or child(ren) under age twenty-one (21) (twenty-five (25) provided the dependent child is a full-time student in college or disabled under Social Security).

Proposed Changes – The Board wishes to determine the financial effect on the System of the following proposed pre-retirement survivor benefits for active Members with no spouse, domestic partner or child(ren) under age twenty-one (21) (twenty-five (25) provided the dependent child is a full-time student in college or disabled under Social Security):

- **Scenario 1**

  $10,000 lump sum payment upon death while employed.

- **Scenario 2**

  Lump sum payment equal to prior year's salary upon death while employed.

- **Scenario 3**

  75% of the Member's vested accrued benefit as of date of death payable for ten (10) years certain only commencing upon the first of the month coincident or next following death while employed.

Results – The attached Exhibits set out the key financial results of our Study for each Scenario. The following set out the projected change in minimum annual required contribution for the first year for the System as a dollar amount and as a percentage of covered payroll ($9,210,384):

Item	Incremental Cost in Minimum Funding Payment
Scenario 1 $10,000 lump sum payment upon death while employed	$ 231 0.0%
Scenario 2 Lump sum payment equal to prior year's pay upon death while employed	$ 1,731 0.0%
Scenario 3 75% of vested accrued benefit payable for 10 years certain only	$ 3,423 0.0%

Other Considerations **–** Under Governmental Accounting Standards Board (GASB) Statement Number 68, we understand the cost of benefit changes must be recognized immediately in pension expense (accounting not funding). Therefore, the pension expense is expected to increase slightly the first year and then is expected to return to lower levels in fiscal years following initial recognition of the benefit change.

The estimated cost for different lump sum amounts can be calculated ratably based upon the table above. For example, under Scenario 1 a lump sum of $15,000 would cost 150% of the annual cost of the $10,000 lump sum shown above or $347 (1.5 x $231) Similarly, under Scenario 2 the cost of a lump sum equal to two times pay would be $3,462 (2 x $1,731).

We understand changes in System benefits may require bargaining.

Actuarial Assumptions and Methods, System Provisions, Financial Data, Member Census Data – The actuarial assumptions and methods, financial data and member census data employed for purposes of our Actuarial Study are the same actuarial assumptions and methods, financial data and member census data utilized for the January 1, 2018 Actuarial Valuation.

The System provisions employed for purposes of our Actuarial Study are the same System provisions utilized for the January 1, 2018 Actuarial Valuation as modified above.

This Actuarial Study is intended to describe the estimated future financial effects of the proposed System provision changes on the System, and is not intended as a recommendation in favor of the benefit changes or in opposition of the System provision changes.

If all actuarial assumptions are met and if all future minimum required contributions are paid, System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level percent amortization payment using an initial amortization period of 30 years.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The UAAL would be different if it reflected the market value of assets rather than the smoothed actuarial value of assets.

The funded percentage shown in Item G of the Exhibit is for informational purposes and is not appropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System's benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

These calculations are based upon assumptions regarding future events. However, the System's long term costs will be determined by actual future events, which may differ materially from the assumptions made. These calculations are also based upon present System provisions that are referenced in this Actuarial Study.

If you have reason to believe the assumptions used are unreasonable, the System provisions are incorrectly described as referenced, important System provisions relevant to this proposed Actuarial Study are not described or that conditions have changed since the calculations were made, you should contact the undersigned prior to relying on information in this Actuarial Study.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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); and changes in System provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This Actuarial Study should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

This Actuarial Study has been prepared by actuaries who have substantial experience valuing public employee retirement plans. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the System as of the Study date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This Actuarial Study may be provided to parties other than the Board only in its entirety and only with the permission of an approved representative of the Board.

The signing actuaries are independent of the System sponsor.

If you have reason to believe that the information provided in this Actuarial Study is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the undersigned prior to making such decision.

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,

L. F. Wilson | Jennifer Borregard

Lawrence F. Wilson, E.A., A.S.A.
Senior Consultant and Actuary

Jennifer M. Borregard, E.A.
Consultant and Actuary

Enclosures

cc: Mr. Harry Bethel, Chairman
Ronald J. Cohen, Esq.

Retirement System for General Employees of
the Utility Board of the City of Key West

Actuarial Studies as of January 1, 2018

	Actuarial Valuation				Scenario 1			
	Current Plan				Minimum Pre-retirement Benefit Lump Sum Payment of $10,000			
		Cost Data	% of Annual Compensation			Cost Data	% of Annual Compensation
A. Participants							
1. Active Employees		117	N/A			117	N/A
2. Terminated Vested		25	N/A			25	N/A
3. Receiving Benefits		187	N/A			187	N/A
4. Annual Payroll of Active Employees	$	9,210,384	100.0%		$	9,210,384	100.0%
B. Total Normal Costs	$	1,575,303	17.1%		$	1,575,499	17.1%
C. Total Actuarial Accrued Liability	$	116,627,607	1266.3%		$	116,627,947	1266.3%
D. Smoothed Actuarial Value of Assets	$	89,650,519	973.4%		$	89,650,519	973.4%
E. Unfunded Actuarial Accrued Liability	$	26,977,088	292.9%		$	26,977,428	292.9%
F. Market Value of Assets	$	91,629,477	994.8%		$	91,629,477	994.8%
G. Funded Percentage (Market Value)		78.6%	N/A			78.6%	N/A
H. Net Minimum Funding Payment	$	4,079,176	44.3%		$	4,079,407	44.3%
I. Increase / (Decrease) in Net Minimum Funding Payment		N/A	N/A		$	231	0.0%

Retirement System for General Employees of
the Utility Board of the City of Key West

Actuarial Studies as of January 1, 2018

	Actuarial Valuation				Scenario 2			
	Current Plan				Minimum Pre-retirement Benefit Lump Sum Payment of Prior Year's Pay			
		Cost Data	% of Annual Compensation			Cost Data	% of Annual Compensation
A. Participants							
1. Active Employees		117	N/A			117	N/A
2. Terminated Vested		25	N/A			25	N/A
3. Receiving Benefits		187	N/A			187	N/A
4. Annual Payroll of Active Employees	$	9,210,384	100.0%		$	9,210,384	100.0%
B. Total Normal Costs	$	1,575,303	17.1%		$	1,576,467	17.1%
C. Total Actuarial Accrued Liability	$	116,627,607	1266.3%		$	116,634,001	1266.3%
D. Smoothed Actuarial Value of Assets	$	89,650,519	973.4%		$	89,650,519	973.4%
E. Unfunded Actuarial Accrued Liability	$	26,977,088	292.9%		$	26,983,482	293.0%
F. Market Value of Assets	$	91,629,477	994.8%		$	91,629,477	994.8%
G. Funded Percentage (Market Value)		78.6%	N/A			78.6%	N/A
H. Net Minimum Funding Payment	$	4,079,176	44.3%		$	4,080,907	44.3%
I. Increase / (Decrease) in Net Minimum Funding Payment		N/A	N/A		$	1,731	0.0%

Retirement System for General Employees of
the Utility Board of the City of Key West

Actuarial Studies as of January 1, 2018

	Actuarial Valuation				Scenario 3			
	Current Plan				Minimum Pre-retirement Benefit 75% of Vested Accrued Benefit Payable for 10 Years Certain Only			
	Cost Data		% of Annual Compensation		Cost Data		% of Annual Compensation	
A. Participants								
1. Active Employees		117	N/A			117	N/A	
2. Terminated Vested		25	N/A			25	N/A	
3. Receiving Benefits		187	N/A			187	N/A	
4. Annual Payroll of Active Employees	$	9,210,384	100.0%		$	9,210,384	100.0%	
B. Total Normal Costs	$	1,575,303	17.1%		$	1,576,773	17.1%	
C. Total Actuarial Accrued Liability	$	116,627,607	1266.3%		$	116,650,816	1266.5%	
D. Smoothed Actuarial Value of Assets	$	89,650,519	973.4%		$	89,650,519	973.4%	
E. Unfunded Actuarial Accrued Liability	$	26,977,088	292.9%		$	27,000,297	293.2%	
F. Market Value of Assets	$	91,629,477	994.8%		$	91,629,477	994.8%	
G. Funded Percentage (Market Value)		78.6%	N/A			78.6%	N/A	
H. Net Minimum Funding Payment	$	4,079,176	44.3%		$	4,082,599	44.3%	
I. Increase / (Decrease) in Net Minimum Funding Payment		N/A	N/A		$	3,423	0.0%	

Retirement System for General Employees of
the Utility Board of the City of Key West

Outline of Principal Provisions of the Retirement Plan

A. Effective Date:

April 9, 1954, as amended and restated as of October 25, 2017.

B. Eligibility Requirements:

All regular and permanent employees of the Utility Board shall become members of the Plan immediately upon completion of probationary period. All regular and permanent employees of the Utility Board employed prior to October 2, 2003 became members of the Plan immediately upon employment. Elected Utility Board officials become members of the Plan immediately upon election.

C. Member Contributions:

Eliminated effective October 1, 1985 (October 1, 1983 for management members).

D. Utility Board Contributions:

The Utility Board shall contribute an amount which will be determined annually by decision of the Utility Board.

E. Credited Service:

Credited service is service performed subject to a maximum of 30 years. However, any member with more than 30 years of credited service as of November 20, 1998 will be grandfathered under the prior 35 year cap.

F. Final Average Compensation:

Final average compensation (FAC) equals the average annual pensionable earnings earned during a period of the five highest years out of the last ten years of service immediately preceding retirement. Pensionable earnings are calculated using the member's base hourly rate each pay period, multiplied by 80 hours, less any hours that are considered *leave without pay* .

Effective January 1, 2020, FAC equals the average of the pensionable earnings earned by a member during the highest 10,440 hours out of the last 20,880 hours of service (which shall be determined using the highest 130.5 payroll periods of the last 261 payroll periods) immediately preceding termination of service or retirement. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

G. Career Average Compensation:

Career average compensation (CAC) means the average of the pensionable earnings earned by a member from date of participation to termination of service. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

H. Normal Retirement:

1. Eligibility:

   Earlier of:
   (a) Attainment of age 60 and completion of 10 years of credited service, attainment of age 60 if a Plan Member on or before November 13, 2008.
   (b) Completion of 30 years of credited service.

2. Benefit:

   For employees hired on or before May 31, 2010, 2.4% times FAC times years of credited service. For employees hired on or after June 1, 2010, 2.0% times CAC times years of credited service.

I. Early Retirement:

1. Eligibility:

   Earliest of:
   (a) Attainment of age 55 with completion of 10 years of credited service.
   (b) Completion of 20 years of credited service.

2. Benefit:

   Benefit as calculated for normal retirement based on credited service and FAC or CAC as of early retirement date. The member may elect to defer receipt of the benefit until the normal retirement date or alternatively, may elect a benefit reduced 5% for each year the benefit commencement date precedes normal retirement date.

J. Disability Retirement:

1. Eligibility:

   Totally and permanently disabled as defined under the Plan and completion of 10 years of credited service as of date of disability.

2. Benefit:

For employees hired on or before May 31, 2010, benefit as calculated for normal retirement based on credited service and average basic compensation during the three years immediately preceding disability, minimum benefit of 20% of final three year average basic compensation at date of disability.

For employees hired on or after June 1, 2010, benefit as calculated for normal retirement based on credited service and CAC as of date of disability, minimum benefit of 20% of CAC at date of disability.

These benefits will be offset by any benefits payable under Workers' Compensation or similar injury or disability benefit payments.

K. Pre-Retirement Death Benefit:

In the case of death of a member while currently employed, the amount of the projected benefit which such member would have received had the member continued employment until normal retirement date at the current rate of pay shall be determined. Each Plan Member may elect survivor payment under Option 1 or Option 2, however, Option 2 is only available if the Plan Member has children under 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security).

Option 1, 75% of the benefit calculated above payable during the remaining lifetime of the spouse or domestic partner.

Option 2, 100% of the benefit calculated above payable until the youngest child is 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security). Upon attainment of age 21 (age 25 provided the child is a full-time student in college or disabled under Social Security) by the youngest child, 60% of the benefit calculated above payable during the remaining lifetime of the surviving spouse or domestic partner.

Notwithstanding the above, the minimum death benefit paid shall not be less than the accumulated employee contributions, if any, as of date of death.

L. Termination Benefit:

Upon termination prior to normal or early retirement date a member shall be entitled to choose (1) or (2) below, where:

(1) is a refund of employee contributions plus 1% if termination with 5 years or less of service, or 3% if termination after 5 years of service; and,

(2) is (a) x (b), where (a) is the benefit as calculated for normal retirement, based on FAC or CAC and credited service at date of termination, and (b) is a percentage as shown on the following table:

Years of Credited Service	Percentage
Less than 5	0%
5	25%
6	30%
7	40%
8	60%
9	80%
10 or more	100%

If this option is selected, unreduced vested benefits commence as of the terminated employees' normal retirement date. Alternatively, the member may elect to commence receiving a reduced vested benefit any time after early retirement eligibility requirements are met. Such benefit is reduced by 5% for each year that commencement of benefits precedes the date which the member would have been eligible for normal retirement.

M. Normal Form of Payment:

Monthly life annuity with final payment due in month in which death occurs. Effective January 1, 1986, monthly benefits are increased 2% per annum. Effective January 1, 2001, monthly benefits are increased 3% per annum.

N. Changes Since Previous Valuation (Included in Actuarial Impact Statement)

1. Final Average Compensation was:

Final average compensation (FAC) equals the average annual pensionable earnings received during a period of the five highest years out of the last ten years of service immediately preceding retirement. Pensionable earnings are calculated using the member's base hourly rate each pay period, multiplied by 80 hours, less any hours that are considered *leave without pay* .

2. Career Average Compensation was:

Career average compensation (CAC) means the average of the pensionable earnings received by a member from date of participation to termination of service. Pensionable earnings are calculated using the member's base hourly rate each pay period, multiplied by 80 hours, less any hours that are considered *leave without pay* .

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

A. Mortality

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Sample Ages (2018)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	30.53	33.57	30.10	33.34
60	25.60	28.54	25.44	28.44
62	23.70	26.58	23.60	26.52

Sample Ages (2038)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	32.67	35.41	32.26	35.21
60	27.78	30.38	27.63	30.30
62	25.87	28.40	25.78	28.35

B. Interest to be Earned by Fund

7.5%, net of investment expenses, compounded annually - includes inflation of 2.75%.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation

C. Allowances for Expenses or Contingencies

Average of actual administrative expenses during prior three (3) years.

D. Employee Withdrawal Rates

Withdrawal rates were used in accordance with tables per the following illustrative example:

Withdrawal Rates	
Service	Unisex Rates
0	10.0%
1	9.0%
2	8.0%
3	6.0%
4	4.0%
5+	3.5%

E. Salary Increase Factors

Current salary was assumed to increase according to the following table.

	Salary Increase Factors		
Age	Assumed Wage Inflation	Promotion & Seniority	Total Current Rates
< 25	3.5%	6.5%	10.0%
25 - 34	3.5%	4.0%	7.5%
35 - 44	3.5%	2.5%	6.0%
45 - 54	3.5%	1.5%	5.0%
55 & After	3.5%	1.0%	4.5%

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation

F. Disability Benefits

Class (01) Inter-Company modified disability rates for males were used. Rates for females were doubled. No Workers' Compensation benefits are assumed to be payable.

G. Assumed Retirement Age

Employees are assumed to retire at the rates shown in the following table.

Age	Rate of Retirement
< 55	5%
55 - 58	15%
59 - 60	30%
61 - 62	10%
63 - 69	15%
70	100%

Employees who attain age 50 with 30 years of service after the valuation date are assumed to retire no later than age 50 with 30 years of service. Employees who have reached age 70 or age 50 with 30 years of service as of the valuation date are assumed to remain employed for an additional year.

H. Death Benefits

1. The assumed incidence of deaths is 90% service incurred and 10% as non-service incurred.
2. 10% of participants are assumed to designate a child as beneficiary eligible for future children's benefits.
3. 90% of participants are assumed to be married.

I. Valuation of Assets

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of System assets and whose upper limit is 120% of the fair market value of System assets.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation

J. Increase in Covered Payroll

3.0% per year, but limited to average annual increase over most recent ten years (0.0%).

K. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Actuarial Cost Method.
Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his age at hire to his assumed retirement age to fund his estimated benefits, assuming the System had always been in effect. The normal cost for the System is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the System is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the smoothed actuarial value of assets of the System.

L. Changes Since Previous Valuation

None